

**SEMIOSIS AS THE SIXTH SENSE:  
THEORISING THE UNPERCEIVED  
IN ANCIENT GREEK**

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## **ABSTRACT**

It is assumed that Western intellectual thinking and writing originates in the cultural practices of ancient Greece. In particular, the activity of constructing theories has its first identifiable origins during the sixth to the fourth centuries BCE in the Greek world. This thesis aims to investigate what linguistic resources had been developed in ancient Greek to enable this form of cultural activity, since the language of these texts constructs such theories.

It is argued in this thesis that such linguistic resources had been present in Homeric Greek. However, as the Greek world changed over the next four centuries, these resources were recombined and further developed— in particular, the simultaneous deployment of persuasion with description or narrative— to result in the construction of theories, as in Herodotus' explanation of the flooding of the Nile. Furthermore, this theorising activity comes to have an influence on the activity of describing or narrating events, so that such descriptions are modelled in terms of a covert theoretical model, in order to construct understanding and conscious knowledge. The historian Thucydides' account of the plague of Athens demonstrates such a theorised description. Thus the meaning-making of texts becomes a legitimate 'mental tool' for investigating and understanding one's experience of the world.

A multi-stratal and multi-levelled linguistic analysis using the theoretical framework of systemic-functional linguistics (SFL) was performed in order to trace the diachronic development of theorisation. This development is characterised in terms of an ensemble of features of generic structure, rhetorical structure, and ideational lexicogrammar (and its relationship to clausal semantics through metaphor). Since there is no existing SFL description of ancient Greek, a major part of this thesis also investigates how SFL theory might be applied to this language, in order to support the linguistic analysis and enable textual interpretation.

## **DECLARATION**

I, Astika Kautilya KAPPAGODA, declare that this thesis has not been previously submitted for a higher degree at any university or institution. I also declare that the entire contents of this thesis are entirely my own work, and that the sources that have been used in the preparation of this thesis have been duly and properly cited and acknowledged, at the points in this thesis where such sources have been used.

Signed

Dated

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# **PART ONE**

## **CHAPTER 1**

### **Introduction**

'Language, well used, is a *completion* and does what the intuitions of sensation by themselves cannot do. Words are the meeting points at which regions of experience which can never combine in sensation or intuition, come together. They are the occasion and the means of that growth which is the mind's endless endeavour to order itself... Language is no mere signalling system.'

(from Richards, I.A. (1936) *The Philosophy of Rhetoric* London: Oxford University Press, p.130-131; quoted in Kittay (1987) p.96)

Humans have five senses with which to experience the world. They also have language, which has an instrumental role in how that world is experienced and thought about, to the point where it could be thought of as having an at least 'equal status' to sensory processes in terms of how that world is perceived. But it goes beyond that: language has a profound influence on all senses, and determines to a large extent how 'data' from these senses is perceived and experienced, how it is 'made sense of'. This thesis explores how language might be used in the shaping of the experienced world, in enabling conscious reflection which impacts upon this process of experiencing. One particular kind of reflection in Western talking, writing and thinking is of interest here: what might be termed the application of 'rationality'.



## 1.1 The subject of investigation

### 1.1.1 Greek and modern 'rationality'

It is a commonplace– and also a cliché– to say that the Western intellectual tradition had its origins in ancient Greece. History, philosophy, science, medicine and literature are all said to have stemmed from this particular part of the Mediterranean, adopted by the Romans, conjoining with the Christian tradition of Europe and having a profound influence on modern Western thinking, speaking and writing. If there is one particular 'achievement' that binds the emergence of these activities together, it is said to be the emergence of 'rationality', and the awareness that the Greeks developed about their own rationality. Bruno Snell, in his *Discovery Of The Mind*, puts it like this:

European thinking begins with the Greeks. They have made it what it is: our only way of thinking; its authority, in the Western world, is undisputed.... we must first of all understand that the rise of thinking among the Greeks was nothing less than a revolution. They did not , by means of a mental equipment already at their disposal, merely map out new subjects for discussion, such as the sciences and philosophy. They discovered the human mind. This drama, man's (sic) gradual understanding of himself, is revealed to us in the career of Greek poetry and philosophy.

(Snell (1953) p.v-vi)

However, it is not enough to say that the Greeks were 'rational'– an issue which Snell implicitly acknowledges. This labelling is inadequate for two reasons. Firstly, the terms 'rationality' and 'rational' are left undefined by such labelling– what it means to

be 'rational' in terms of one's experience and understanding of the experienced world. Secondly, such labelling does not tell us how this 'rationality' came about.

The actual relationship between ancient Greek thinking and writing, and that of the modern era, may not be as direct as is commonly supposed; however this still is in accord with the usual notion of Western thinking being 'descended' from the Greeks. Snell's writing emerged in the middle of the twentieth century, and it may be thought that this argument is somewhat dominated by the need to describe a continuous line of intellectual 'descent' which starts from the ancient Greeks and continues in cultural practice (which includes activities which are thought of as 'intellectual') that originated in Europe. As Geoffrey Lloyd's work on ancient science and medicine shows, this ancestry is not as direct as might seem at first acquaintance— much ancient thought is an amalgam of what might be considered 'rational thinking' with pre-existing religious, 'folk' and magical practice<sup>1</sup>. The overall results of this mixture results in reasoning that appears to be quite 'alien' to modern Western thinking, and approaches to constructing knowledge that do not accord readily with modern Western practice. However, even if this view is adopted, it in no way invalidates a background assumption that the Greeks consciously turned themselves towards reflecting upon the nature of their experienced world, and trying to explain it on its own terms without invoking a divine sphere of action, and without assuming that large parts of their world were beyond such explanation. This same principle continues in modern academic, consciously reflective, thinking.

An appreciation of this Greek 'rationality' is prevalent in literary, philosophical and ancient world studies, and extends to other fields beyond. An example of this is the way in which modern scholarship and research have reacted to the account of the plague of Athens written by the historian Thucydides, a major text under consideration in this thesis. Classicists have long commented on its 'scientific' manner of description:

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<sup>1</sup> See Lloyd (1999).

"Some defects have been justly charged against this description; but they are slight blemishes on a lucid, systematic and detailed narrative expressed with a high degree of technical accuracy."

Page (1953)

"Thucydides, in his description of the plague and elsewhere, is extraordinarily observant and precise, and with the notion *per se* that he possesses any of the virtues that we associate with the exact sciences, there is little reason to argue."

Parry (1969)

"Thucydides' rational, careful, detailed description of the symptoms of a disease is, for its time, rare— indeed, unparalleled, outside the writings of the Hippocratic *Corpus*... Thucydides manifestly deserves praise for his accurate observation and detailed description of these particular effects of the plague."

Longrigg (1992)

Modern medical opinion also comments 'approvingly' on Thucydides' description of the plague of Athens. These comments are often explicit:

"Thucydides...also acquired the disease but lived to record its outbreak in such detail that classicists and medical historians have for centuries been using his information to attempt a diagnosis of this renowned disease...both the medical and epidemiologic professions should rediscover Thucydides as one of the most brilliant observers of all time and place him in the pantheon with the greatest of epidemiologists."

Langmuir, Worthen et al. (1985)

Comment is also made implicitly on the account by the number of people that have attempted to make a 'diagnosis' of the disease based on the description. This activity assumes that the information contained in the account about the plague is of such a kind that it can be used as 'data' out of which a legitimate theory about the cause of the disease can be built. It is therefore implied that the information about the plague presented by Thucydides has been recorded and constructed in a 'scientific' manner, and that the 'rationality' that might be said to 'underlie' the account is of the same kind as what is considered 'rational' these days. But comments such as these are an exercise in the identification of intellectual practice between different historical periods in the Western world— what he did is like what we do. But they do not define the concept of 'rationality' any further.

### **1.1.2 Two ways of approaching 'rationality'**

It is beyond the scope of this thesis to define what is meant by 'rationality', and perhaps such a definitional approach is not the right one to take. To answer the question, one would have to consider all kinds of texts, produced by all kinds of people, examining all kinds of human experience. This multiplicity complicates the methodology— one would be examining a vast array of texts and types of text in a

large range of languages. But in addition, the difficulties in investigating such a question are also conceptual— the greater the number of texts and people producing those texts, the less chance there is of one being able to produce a conceptually unified account of what rationality is, or how it has come into being.

Faced with these problems, there is an alternative approach to the issue, which could be characterised as a 'ground up' approach: it asks questions from the point of view of text, not from the point of view of what is to be explored. As a result, an alternative question is asked: what is this text doing to be thought of as 'rational'? The question can be asked of each 'rational' text, and as more texts are similarly interrogated, a sense of the nature of rationality would begin to emerge. Furthermore, this approach opens up another question— whether there is one single kind of rationality, or whether it is more appropriate to develop the notion of different 'rationalities', kinds of rational processes that differ from each other with respect to some aspect of social or cultural life. This 'ground up' approach is essentially what is being advocated in this thesis— to obtain an understanding of the notion of rationality by investigating the linguistic features of texts which are thought to take a 'rational' approach to what is experienced. It is hoped that some sense of what it means to be 'rational' might emerge out of the linguistic description and analysis of these texts, while not excluding the possibility that other texts might construct different kinds of rationality because of their different linguistic organisation.

This 'ground up' approach also assumes certain things about the status of linguistically investigating texts to answer questions about the nature of rationality. The 'linguistically naïve' approach to texts in exploring some aspect of the ancient world is that these texts— whether they are tragedies, histories, dialogues, inscriptions, papyri or other forms of written material— are *evidence* or *proof* in support of, or contradicting a claim about, the nature of the ancient world. This in turn presupposes that texts— linguistic units— *reflect* some entity that is 'non-linguistic' in a direct way. This is evident in the way that such texts are cited or quoted to support a classicist's claim— one could claim that the style of Nicias' speeches in books 6 and 7 of Thucydides *reflects* his personality (or Thucydides' conception of his personality) or

that certain medical or scientific texts *reflect* an ancient Greek reluctance to argue from empirical evidence or observation. However, in the 'ground up' approach, where linguistic analysis and discussion of texts is used to build up an understanding of a given issue, the texts are considered to *construct* (not simply 'reflect') the issue itself. Nicias' speeches *construct* Thucydides' conception of his personality, and certain texts in Presocratic philosophy and the Hippocratic corpus *construct* the avoidance of experimentation. In this thesis, at least two of the texts under consideration—Herodotus' theory of the flooding of the Nile and Thucydides' description of the plague of Athens, as well as the many medical texts associated with the Hippocratic corpus—construct rationality (whatever the precise nature of that rationality might be). Thus the linguistic features of the texts under consideration in this thesis are assumed to construct particular meaningful activities, and in turn to construct the particular social and semiotic activity taking place.

### 1.1.3 Constructing theories as part of rationality

This thesis concerns itself with a relatively circumscribed area of what might be thought of as the rational process. One kind of rational reasoning is to do with consciously reflecting on experience— that is, foregrounding in one's speaking or writing some aspect of the experienced physical, social or cultural world, and trying to explain it— what led to its existence, what effects it has on other parts of the world, and whether it is like or unlike anything else in the experienced universe. Such explanations can be overt— 'this happens because...', 'the effect of this is...', 'this is similar to...'— but, as we shall see in the consideration of Thucydides' account of the plague of Athens, explanations can also be covert, emerging in latent patterns of language use not explicitly brought to the attention of the audience of the text. So, the question that is posed in this thesis is: what linguistic resources in ancient Greek are used or developed in order to enable such conscious reflection?

Formulating this particular part of rationality in this way, the activity of explanation lies at the core of conscious reflection. In English, in ancient Greek, in all modern

Indo-European (IE) languages, and most likely in all languages, something can be explained in a number of ways— that is, there are a number of linguistic resources available in the systems of language that may be selected in the process of trying to explain something.

If we want to further specify what explanation is, there are two complementary possibilities, the distinction between which may be analogous to that between the concepts of 'experiential' and 'logical' found in systemic-functional linguistic theory. In the first approach, we might subdivide explanations into an 'Aristotelian' classification of 'logical' types— causal explanations, explanations of effects, or comparisons and categorisations. Such a taxonomy is similar in outline to the types of enhancing logico-semantic relations in clause complexing and rhetorical structure found in systemic-functional linguistic (SFL) theory; in turn, these semantic and lexicogrammatical categories can be thought of as being informed by the particular functions that texts or text types have in their cultural and social context<sup>2</sup>.

The other complementary way in which one might explain something is in terms of what might be called its 'experiential' characteristics— that is, what kinds of events, involving what kinds of things, are involved in the explanation. In the total of Greek literature, the causes and effects of various happenings, and the ways in which they might be compared, are diverse at all stages of the language's history. Gods can cause thunderbolts or plagues, or put courage or strength in a person in the Homeric epic, or the disordered functioning of the brain can cause seizures in the Hippocratic corpus, or Athenian imperial expansion can cause Sparta to fear Athens, leading to the outbreak of war between the two states in Thucydides' history.

The experiential character of each of these explanations is different, and can be described in a preliminary way with respect to two dimensions. Firstly, the explanation can lie in a particular realm— that is, whether the features and events of the explanation are construed to be found in the physical, biological, social or

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<sup>2</sup> For the notion of grammatical categories being a reflection of discourse functions, see Hopper and Thompson (1984).

semiotic world, or are thought to act in a way like events found in one of these worlds. Secondly, explanations can be described in terms of whether the events described in the explanation have the potential to be directly presented to the senses, or are not.

With respect to this framework, and in the context of this thesis, a theory of something– or the semiotic activity of theorisation– attempts to explain something that is presented to the senses directly, and presents the explanation in terms of what is not directly presented to the senses ('abstract', in a certain sense), but is construed to have the potential to be so presented at some later point in time. This is a highly selective interpretation of the term 'theory', and many instances of theories can be thought of that do not fit this model. However, it is this particular kind of theory-making that is being investigated in this thesis– explaining the perceived in terms of what is unperceived. This is the concern of this thesis: what are ancient Greek texts doing in order to construct theories of this kind?

So the area of investigation of this thesis, when considered from a 'global' perspective, is relatively narrow. One aspect of what might be termed 'rationality'– the construction of theories– and one particular kind of theorisation– explaining what is perceived in terms of what is both unperceived *and* potentially perceivable– is the focus of interest here. The thesis aims to examine what kinds of linguistic resources are developed and used in order for such theories to be constructed in ancient Greek texts. If one accepts that this aspect of 'rationality' has been inherited by modern day academic and intellectual thinking and writing, then what is being discussed in this thesis has implications for how we should view at least certain kinds of theory-making and conscious reflection in the present day.

## **1.2 The aim of this thesis**

The aim of this thesis is to use tools developed within the functional tradition in linguistics in order to explore how the resources of the ancient Greek language



developed to the point where texts created in that language could consciously reflect or theorise on experience.

This aim implies that there are appropriate linguistic tools that currently exist to investigate the question of the development of theorisation, and that it is simply a matter of selecting these to use. However, it can certainly be a point of discussion as to whether such tools do indeed exist to investigate texts that are thought to consciously reflect on experience, and whether they exist for such a language as ancient Greek. This consideration has to be done against the background of previous linguistic descriptions of the language and of functional descriptions of other languages, evaluating to what extent such descriptions can be useful for analysing and interpreting such texts. Therefore, there is a second aim to this thesis— discussing how one might go about developing a functional description of the lexis and grammar of ancient Greek (what might be termed the linguistic systems that create and combine meanings) and its semantics and semiotic context (what is 'meant' by the lexis and grammar).

### **1.3 The structure of the thesis**

Hence, the thesis is essentially in two parts, reflecting the two major aims of the thesis. Part 1 of the thesis ('The description of ancient Greek in functional terms') is principally concerned with the application of SFL theory to describing the linguistic resources of ancient Greek. The essential elements of SFL theory that are used in the thesis are set out in Chapter 2, and discussion on why a functional linguistic theory such as SFL needs to be applied to ancient Greek is set out in Chapter 3.

Specific issues in trying to develop a SFL description of the lexicogrammar, semantics and semiotic context for ancient Greek are explained in Chapters 3 and 4. To date, there has been no published SFL lexicogrammar of ancient Greek, and a fully systematic one is beyond the scope of this thesis. These chapters aim to 'lay the

groundwork', as it were, for developing a SFL description of the lexicogrammar of ancient Greek at a later time, by considering what has to be taken into account when describing the language's system of wording (the lexicogrammar) and what the language words (the semantics). These chapters also introduce the tools used in the semantic analysis of the texts (the 'ideation base', rhetorical structure and generic structure).

Chapters 5 and 6 aim to discuss particular linguistic phenomena that have an important role to play in consciously reflective, theorising texts— those associated with what in the SFL tradition is called 'grammatical metaphor', where the realisational relationship between semantics and lexicogrammar is subject to change, and is thought to be a significant phenomenon in scientific texts. The issue of how one might detect metaphor in a 'dead' language such as ancient Greek will also be discussed. Grammatical metaphor involves a number of co-occurring linguistic phenomena, and one of these, nominalisation, a particularly prominent feature of ancient Greek from the classical period onwards, is explored in structural and functional terms in Chapter 6. Thus the objectives of Part 1 of this thesis are to describe the theoretical linguistic framework used in the analysis of the texts in the thesis, and which is intended as a base from which a fuller, systematic account of the functional linguistics of ancient Greek may be developed at a later date.

Part 2 applies the concepts described and developed in part 1 to particular ancient Greek texts in order to determine what kinds of linguistic features construct their conscious reflection on experience and theorisation activity. This involves ideational analysis of the lexicogrammar (which in turn includes the analysis of individual clauses and clause complexing relations) and where the discussion requires it, this analysis is done with reference to the semantic stratum, and in particular the 'ideation base'. Furthermore, at the level of semantics, the determination of rhetorical relations and generic structure of the texts is performed. Hence the text analysis in the thesis is multi-level and multi-stratal, in order to show that the activity of theorisation and conscious reflection in these texts is created through the co-occurrence of several linguistic phenomena, and that there is a changing but ongoing 'dialogue' between

these co-occurring features within individual texts and in the historical development of text types. The discussion of the analysis is done with reference to what is known or supposed about the semiotic and social context in which these texts were produced, drawing on established work in ancient world studies. The linguistic analysis on which the discussion is based is presented in the Appendix (Appendices B, C, and D), prefaced by a section on the orthographic conventions used in the thesis (Appendix A). Specific clauses and clause complexes are cited in the analyses in the format (clause complex number.clause number); single clauses are referred to by their clause number in the analysis (a single number).

Much of what is concluded about the analysis and discussion is included in Part 2 of the thesis. The conclusion of the whole thesis aims to comment on some general patterns and themes—both about the texts themselves, and about issues that pertain to linguistic theory and analysis.

## **1.4 The texts examined in the thesis**

Three sets of ancient Greek texts have been examined to explore the issues under consideration in the thesis—Homeric epic in the *Iliad* (with some ancilliary evidence from the story of Pandora in *Works and Days*, the epic poem by Hesiod), Herodotus' history—in particular, his excursus in Book 2 into the history, geography and ethnography of Egypt—and the historian Thucydides' account of the plague of Athens in the second book of his history of the war between Athens and Sparta. As mentioned before, the analysis of these is found in the Appendix. This is supplemented in the body of the thesis by linguistic discussion of other texts from the Hippocratic corpus and other ancient Greek texts.

These texts were selected for the discussion of the development of conscious reflection and theorisation for the following reasons. Firstly, the period in which overt theorisation and conscious reflection first became established in ancient Greece was the classical period—the fifth and fourth centuries BCE. It was during this period

that many of the major ancient Greek literary texts were produced– the tragedies and comedies, Presocratic philosophy, Hippocratic medical texts and oratory. The historians Herodotus and Thucydides– the latter the younger contemporary of the former– constructed their work in this literary and consciously reflective environment, and in a social context where there was now the notion of public spaces in city-states, law and administration, and a foregrounding of political, and often military, activity– material and social action that was done in a public environment. These authors as a result did not simply chronicle events– they produced their historical texts grounded in a particular understanding and conception of 'how the world works'– in its material, biological, and social aspects– which was intended to inform those events. In short, they consciously reflected on the world about which they wrote.

Their writing, and similar writing by others, emerged in a relatively short period of time, to the point where it might have thought to have 'come from out of nowhere'. Yet clearly this is not the case. Even if one accepts that the evolution of this kind of theorising activity happened during a short period of time, there must have been something to evolve from. To look for this, one has to consider what kinds of earlier Greek texts might present some conception of the world and how it might work, however covertly that picture might be presented. Epic poetry– the Homeric epics the *Iliad* and the *Odyssey*, and Hesiod's epic poems such as *Works And Days* and the *Theogony*– are a plausible place to start looking. They also happen to be the earliest Greek extended literary texts that we know, and this increases the chances of determining a particular trajectory of evolution of the activity of conscious reflection and theorisation. At the same time, they do not explicitly construct theories or consciously reflect on the experienced world in a foregrounded, sustained way. So it is supposed in this thesis that there are linguistic features that have their first known origins in epic poetry that are further developed and extended in later texts to allow this activity.

It is also supposed that these individual texts under examination are instances of use of linguistic systems that were also used by people who also created texts of this type. So Herodotus' and Thucydides' texts are at least in some way instances of use of these

resources, and the same argument applies to the epic poets and the Hippocratic texts. Thus, through examination of individual texts, we hope to gain insight into the evolution of a particular kind of cultural activity.

## **1.5 The linguistic tools employed**

The linguistic tools employed in the linguistic examination of the selected texts broadly derive from a functional approach to language, but in particular draw on the work done on language description and theorisation in the systemic-functional linguistic (SFL) tradition, or work that has important affinities with the approach that SFL takes. Furthermore, this thesis tends to draw upon what might be called the 'Sydney grammar' variant of SFL<sup>3</sup> – that is, work that has been produced by M.A.K. Halliday, Ruqaiya Hasan, Jim Martin, Christian Mathiessen, and others primarily in Australia. This can be distinguished from the 'Cardiff grammar' based around work by Robin Fawcett and others in the United Kingdom, and what might be loosely termed the 'Leuven grammar' developed by Kristin Davidse and others in Belgium. However, as has been noted by Butler<sup>4</sup>, it is important not to consider these variants as radically different from each other, since they do share a large number of their theoretical concepts.

The use of SFL in this thesis is also somewhat distinct from other functional approaches to language, such as Simon Dik's Functional Grammar (some practitioners of which, such as Gerry Wakker and Albert Rijksbaron, have applied functional descriptions to ancient Greek and other ancient languages<sup>5</sup>), Role and Reference Grammar developed by Foley and Van Valin, and what is (unofficially) called 'West Coast Functionalism' in the United States<sup>6</sup>, which encompasses the work of people such as Paul Hopper, Sandra Thompson, William Mann, Peter Fries, Susanna Cummings and others. There are also other, perhaps relatively isolated linguists who

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<sup>3</sup> This is the term used in Butler (2003) p.153.

<sup>4</sup> See *ibid.*

<sup>5</sup> Butler (2003) p.211-213.

<sup>6</sup> See Butler (2003) p.xvii.

may not identify with any of the above strands of functionalism, but do take a functional approach to languages description, such as in Silvia Luraghi's work on Hittite and ancient Greek.

What is presented in this thesis largely has an affinity with the 'Sydney' version of SFL; however, the concepts and assumptions are in common with functional approaches to language: an emphasis on meaning rather than form (though certainly not considering the latter as unimportant), the analysis of texts rather than isolated sentences, and arguments based on descriptions of actual language use. Indeed, one of major theoretical tools used in this thesis– Rhetorical Structure Theory– derives from work that originated on the West Coast of the United States, but has been integrated with SFL. So, although oriented to the 'Sydney' version of SFL, this thesis uses concepts that are found in a broad range of functional approaches to language. The specific tools of analysis– ideational analysis, the ideation base, rhetorical structure theory and generic structure potential– will be explained and discussed in the chapters of Part 1 of this thesis.

## **CHAPTER 2**

### **Linguistic Prolegomena I– The systemic-functional model of language**

The aim of this chapter is to outline and elucidate some basic concepts of functional linguistics relevant to the linguistic analysis carried out in this thesis. This needs to be done for the following reasons. Firstly, one needs to know the basic theoretical assumptions with which a particular form of linguistic analysis operates— firstly, the broad conception and model of language that functional linguistics encompasses, and then, more specifically, at what levels or strata any linguistic analysis is carried out. Secondly, the formulation of relatively 'non-basic' or complex linguistic phenomena, such as grammatical metaphor, or the various kinds of logico-semantic relationships between segments of texts, depends on an explanation of the more general concepts of functional linguistics. Hence, a selective overview of concepts in functional linguistics is essential in order to understand the linguistic analysis fully and to understand the interrelationship and complementarity of different modes of analysis. In particular, there are specific concepts associated with the functional model of language that need to be understood and will be used in the course of the discussion of the linguistic analysis.

#### **2.1 The case for a functional grammatics**

To perform an analysis of an ancient Greek text at the level of its grammar and lexis, one must have an appropriate 'grammatics' for ancient Greek as an analytical tool which allows the determination of the various components of its lexicogrammar in as consistent and explicit a way as possible. If we hope to have a lexicogrammatical analysis which says something about how a text construes or represents experience—

such as trying to elucidate how Thucydides' text construes the complex phenomenon of epidemic disease– we need a grammatics that is orientated to meaning and discourse.

The term 'grammatics' is used consciously and in a way distinct from the term 'grammar'. The latter, as has been pointed out by Halliday and Matthiessen<sup>7</sup>, is ambiguous, because it can refer either to the particular stratum of language itself known as its 'grammar'– distinct from semantics and phonology– or it can be used to refer to the theoretical framework, principles or background assumptions used to describe that stratum, as in the terms 'functional grammar' or 'generative grammar'. Following Halliday and Matthiessen, the term 'grammatics' is used to refer to the latter– therefore concisely defined as 'a theory of the grammar' of a language. Hence a functional grammatics is distinct from a formal or generative grammatics, and from other theoretical formulations.

An orientation of the grammatics to the 'higher' strata of a language is needed for two reasons. Firstly, we need the patterns detected in a clause by the use of a particular grammatics to say something about the patterns of meaning in each clause, and it is these patterns of meaning that will tell us a substantial amount about how experience is represented or construed by a clause. However, secondly, it is not just semantic patterns at the level of the clause that fully account for the construal of experience. Discourse structure– as both rhetorical and generic structure– combine the 'quanta of meaning' of clauses with each other to represent phenomena in a stretch of text with a degree of complexity or detail. In this perspective, language is viewed as a way of ordering experience with respect to particular social or communicative roles (as implied by the terms rhetorical structure and generic structure). Hence a comprehensive account of how a text construes a complex phenomenon requires analysis of discourse, semantic and lexicogrammatical patterns, and for these patterns to be 'mapped' onto each other. The orientation of a grammatics towards these higher levels facilitates such mapping. This is in contrast to a formal grammatics, which takes the need to explain language structures as a priority and tends to be pursued

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<sup>7</sup> Halliday and Matthiessen (1999) p.5-6.



independently of the other linguistic strata. The categories imposed by the grammatics of traditional grammars<sup>8</sup> do have some kind of orientation to meaning, but it is often patchy and inconsistent. Functional grammars build upon this partial orientation in a more consistent, thoroughgoing way. This issue– the relationship between traditional and functional grammatics– will be discussed later (Chapter 3).

A systemic-functional grammatics is the most suitable kind of grammatics for the purposes of this thesis. The systemic-functional view of language comprises a number of underlying principles and assumptions. These principles will be discussed in detail later in this chapter; however, three of these relevant to the aims of the thesis will be briefly elucidated here. Firstly, instances of language (or 'texts') can be viewed as the manifestation of the selection of values in any one, or a combination of, the 'social-semiotic' systems that go to make up the language system as a whole. The theory therefore strongly foregrounds the relationship between individual texts and these language systems, and the way that text and system enact each other. Secondly, these language systems are thought to fall into three broad groups– they are to do with the construal of experience, social interaction, and the organisation of information. These three groups were referred to as 'metafunctions' by Halliday in his functional grammar of English<sup>9</sup>; this term has remained since. Thirdly, the various categories at a particular level or stratum have functions in *realising* various categories at higher strata. Part of the foundation of systemic-functional grammatics can be thought of as the triad of the system-instance relationship, metafunctional organisation and interstratal realisation.

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<sup>8</sup> It is important to note at this point that traditional grammars tend not to set out with an explicit theoretical position in the first instance to argue for the categories that they posit. Rather, their 'grammatics' emerges out of the nature of the formulated categories and their underlying assumptions. Thus the grammatics of these grammars tends to be in the form of an implicit 'emergent theory of grammar', rather than an explicit theoretical position.

<sup>9</sup> See Halliday (1994). He emphasises that these metafunctions were not posited *a priori* in order to set up the systems, but emerged out of seeing how various options in the systems were grouped together. In short, the options in systems 'clumped together' into these three broad groups.

The concept of metafunctions is relevant because, in the process of analysing texts, it explicitly separates out 'language as construal of experience' from other perspectives in which language can be viewed. One can therefore make a direct link between specific features of a text picked out by an analysis and statements about how that text construes experience or phenomena. The notion of realisation is required to elucidate how the various strata of a language interact and work together in a text, and to see how patterns in each stratum correlate with each other<sup>10</sup>. Closely allied with this is the hypothesis that the relationship between semantics and lexicogrammar is a 'natural' one, resulting from their ontogenetic divergence from each other out of a 'plane of content'<sup>11</sup>. From the point of view of linguistic analysis, this implies that lexicogrammatical analysis, performed within the framework of a functional grammatics, provides a special insight into the meanings made in a text. Thus developing a functional grammar of ancient Greek, even in a preliminary way, is most suited to grammatical analysis of a text in order to elucidate semantic patterns, and to

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<sup>10</sup> Strictly speaking, in the framework of functional linguistics, choices in the systems of 'lower' linguistic strata (such as lexicogrammar and phonology) express those of 'higher' strata (such as semantics and context of situation) in any given instance of language. These choices feed back into the systems involved at each stratum.

<sup>11</sup> See Halliday and Matthiessen (1999) p.4. The main thrust of what is said here—that lexicogrammar and semantics bear a 'natural' relationship to each other—requires more justification than can be properly formulated in this discussion. This viewpoint stems from Hjelmslev's discussion in Hjelmslev (1961) p.47-60 of semiotic systems being constituted by reciprocally dependent planes of content and expression— an elaboration and generalisation to the semiotic system as a whole of the Saussurean conception of the components of the individual sign— and the mutual relations between them. Halliday builds on this Hjelmslevian model of sign systems in his own study of the ontogenetic development of language in Halliday (1975) p.12-14, 61-62, where semantics and lexicogrammar are said to diverge out of the plane of content, in turn allowing instances of language to have form or structure. Taking together Halliday and Hjelmslev, the development of semantics and lexicogrammar allows a dual orientation of content (or 'thought') to both systems of expression (lexicogrammar) and to systems of situational or cultural context (semantics). This perspective has quite profound consequences for the relationship between semantics and lexicogrammar, because it means that changes in one of these strata have consequences for the other because they stand in a 'natural' relationship to each other. This is most commonly manifested in the phenomenon of semogenesis, explained in detail in Halliday and Matthiessen (1999) p.17-22, where the lexicogrammar is crucial for 'constructing' new meanings, by combining selections in semantic systems to construe experience.

allow the desired mapping between the strata of context, semantics and lexicogrammar.

## **2.2 Complementary perspectives on language**

There are two complementary ways of looking at a given language, and languages in general. They are in terms of the very general ways in which a language may be characterised (in terms of either its structures or its functions) and the relationship between a language and the means by which that language is created and used (language used by the individual, and language used by a community of speakers). Often, in a given theoretical conception of language, these two are tied together intimately, so that those who see a language as a set of structures see it from the perspective of individual use, and those who see language as used in a 'speech community' often see it as a resource or repository of functions, each of which has a value in that community. The reasons for this association of viewpoints will be explained later. However firstly it is of value to explain these two sets of perspectives separately.

### **2.2.1 Language as structures and language as functions**

The most apparent way to investigate a language is in terms of its constituent structures. The basic premise of this approach is that one should try to identify structural units, out of which larger units are made. These larger units are said to be constituted of these smaller units<sup>12</sup>. In essence, this is a 'building block' approach to language study. The most obvious examples of this lie at the level of a language's

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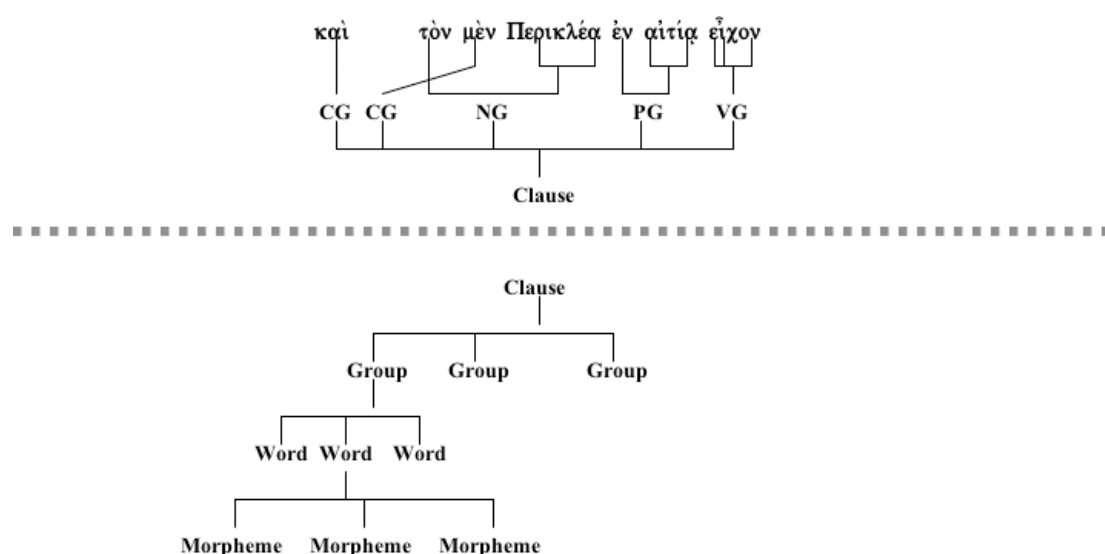
<sup>12</sup> For a typical constituency approach to the description of English grammar– without an avowedly formal grammatics– see Brown and Miller (1992) p.11-49. This does acknowledge that considerations of meaning cannot be excluded from a constituency description– see *ibid.*, p.53.

means of expression, particularly phonology. A diphthong is constituted of two or more monophthongs, labiovelar consonants are constituted of a velar and a labial consonant or semivowel either in close sequence or in simultaneity, syllables in many Indo-European (IE) languages are constituted of at least one consonant and one vowel<sup>13</sup>. This perspective of constituent structure can be (and is) carried on into description of the level of lexicogrammar, where morphemes constitute words, which in turn constitute groups or phrases, which in turn constitute clauses, and complexes of clauses. It is also possible to extend a constituent structure description to the stratum of semantics, where smaller meaning units can be said to make up larger semantic units, in an analogue of the rank scale found in lexicogrammar. This is to some degree implicit in the 'element / figure / sequence' model of the 'ideation base' proposed by Halliday and Matthiessen; this model will be considered in some more detail in Chapter 4. However, there are problems viewing meaning in a language as a set of constituent structures, and this will be discussed later. However, the main present point is that, in this perspective, the smaller units stand in a univariate relationship to the larger entity that they constitute<sup>14</sup> – for example, each morpheme of a word in an IE language, considered purely in terms of structure, stands in the one and same kind of relationship to the word as a whole.

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<sup>13</sup> This is generally thought to be true for vowel-consonant combinations in IE word roots. See Beekes (1996) p.162.

<sup>14</sup> The term 'univariate' is used here in the same sense as in Halliday's characterisation of grammatical constituency – see Halliday (1994) p.3-24.



**Figure 2-1 Constituent structures in the grammar of ancient Greek (CG= conjunction group, NG= nominal group, PG= prepositional group, VG= verbal group)**

This viewpoint in terms of structure is essentially a view of a language 'from below'. That is, it derives from initially examining the sounds that are characteristic of a given language. It is relatively easy to conceptualise sounds as being individual units in a sequence, because they can be heard distinctly, and therefore be distinguished, from each other, and they involve distinct movements of the vocal tract. For written forms of languages, be they syllabic or alphabetic, there are distinct orthographic forms for distinct oppositions in the phonology. It therefore becomes relatively easy to view language as accumulations and aggregations of smaller units into larger structures, which are then combined into still larger ones.

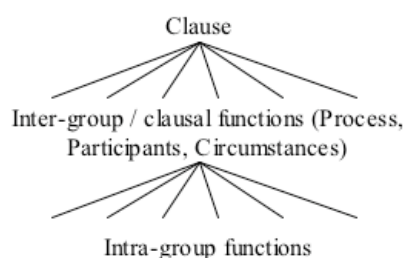
The alternative perspective is that of viewing a language as a resource for creating and construing meanings in the myriad of contexts that emerge in the happenings of

the community in which that language is used. Therefore, a language involves various configurations of meaning that operate in a context or range of contexts. For instance, a full clause in Greek, in common with all other IE languages, involves the configuration of an event or happening with entities involved in that event. Similarly, at the stratum of semantics, a relatively large semantic entity in a text– such as a causally related sequence of events– involves a configuration of two or more events with given selections of time, events that relate one event previously construed in the text with another, and 'logical' relationships between events. Such configurations involve multivariate relationships between the configurants and to the larger entity they configure. For instance, in a clause, a process appears to be in some sense more 'central' to the clause, direct participants in that process more so than indirect participants– which is reflected in the different degrees of obligatoriness of each of these kinds of elements of the clause<sup>15</sup>.

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<sup>15</sup> This is embodied in the notion of more 'nuclear' and more 'peripheral' elements of the clause– see Matthiessen (1995) p.196-198.

καὶ μὲν	τὸν	Περικλέα	ἐν	αἰτία	εἶχον
Conjunctions / Particles	Deictic	Thing	Preposition	Thing	Verb
	Goal		Circumstance: location: space		Process: material: dispositive
Dispositive Material Clause					



**Figure 2-2 Functional configuration of clause in ancient Greek**

This view of language is 'from above'. This is because we view a language from the relatively high 'vantage point' of meaning, and seeing how that meaning operates in the context of the community that speaks it. In the Saussurean sense, meaning is what 'glues' the two facets of the sign together<sup>16</sup>– *signifié* and *signifiant*– and signs are by definition the semiotic resources available to the community that uses those signs in meaning-making. So, in this sense, viewing language as a meaning resource necessarily involves examining a language within the context of the community that speaks it. This is a fundamental premise of not only Saussurean linguistics, but also of systemic-functional linguistics.

<sup>16</sup> For this characterisation of signs and its relationship to the community that uses them, see Saussure, Bally et al. (1991) p.65-78. This is interpreted by Thibault (1997) p.19-20, 221-224, 239-248 as being the use of signs by social agents to 'make meaning'.

### **2.2.2 Individual language and community language**

The other dimension along which a language can be considered is what might be called the particular way in which the person or people using the language are used. Firstly, language can be said to be used by an individual in isolation. In this sense, a language is thought to be produced and comprehended by an individual or individuals mainly, if not solely, through an individual's mental processes, which are in turn grounded in the individual's neurobiological characteristics (including the operation of the vocal tract, and that of the upper limbs in the case of written language and sign languages). So, in this sense, a language is thought to be used by an individual, or by a group of individuals who are presumed to share neurobiological and mental processes to engage in linguistic and semiotic behaviour, and to use a specific language.

At the other end of this dimension is viewing language as being in operation in a community of speakers. What is emphasised in this view is that there is a shared culture in a social community or network that enables linguistic and semiotic behaviour. In this context, an individual is thought to be making use of his or her community's cultural repertoire– the ways in which a community goes about its collective activities– to engage in semiotic behaviour, and, more specifically, to use a specific language. What are shared between individuals are not so much cognitive processes grounded in neurobiology, but rather mental processes that are a function of shared cultural practices.

It is important to emphasise that these are complementary views of a language, and not mutually incompatible ones. The use of a language will always involve a complex interplay between the mental processes that are a property of an individual's biological constitution and those that are a function of a community's culture. However, in any given theoretical linguistic framework, more emphasis will be given to one or the other to explain linguistic behaviour. For instance, it may be posited or assumed that the use of a language, and semiosis in general, is largely a function of a community's cultural practice, set within the constraints of human biology; it can even



then be further argued that even these biological features in the brains of mature individuals are shaped by experience, which will necessarily include experience of, and participation in, the social environment. However, even in this 'culturally oriented' approach to language– which is essentially the viewpoint adopted in this thesis– there is an appeal to both perspectives, because there are implied views on both individual mental processes in relation to semiosis and on how semiosis is a function of cultural practice. With respect to this thesis, Homer, Herodotus and Thucydides are regarded as linguistic individuals whose semiosis is at least partially and significantly reflective of the semiosis of the speech communities of which they are part.

### **2.2.3 Systems of language: as individual structures and as social functions**

As presented above, the structure / function dimension and the individual / social dimension of language are theoretically separable. However, there is a tendency in linguistic theory to associate the individual perspective with 'language as structure' and the social perspective with 'language as function'. This association is not a particularly surprising one. If one is considering a language from the point of view of individual use, then one will in the first instance attempt to relate linguistic phenomena with the most readily observable and systematisable aspects of individual behaviour. The first aspects of behaviour that can be related in this fashion are the various sounds that an individual makes in linguistic behaviour. As explained before, the level of sounding in a language readily lends itself to a structural analysis. Distinct units can be picked out, and from there a notion of constituent units that stand in a univariate relationship to larger units can be developed. As also explained before, the concept of constituent structure can be extended to the higher levels of language, so a comprehensive linguistic theory of constituent structures in the various levels of a language can be developed. Looking at language from the point of an individual therefore tends to lend itself to a characterisation of language as a set of

structures<sup>17</sup>. It is also possible that this view is often implicitly extended to formulate the view that mental processes in general are a set of discrete units which are combined into larger, more complex mental units– a notion which is central to 'modularity of mind' theories and other theories of mind that have a strongly 'localistic' flavour.

In contrast, looking at a language from the point of view of a community tends to characterise a language as a resource of functions. In this perspective 'from above', a speech community is not only seen as a collection of people who speak the same language; such a community is also a network of people with different social roles that are defined in relation to one another. A community characterised in this way cannot be viewed easily as a constituent structure. Instead, people stand in a multivariate relationship to each other and to the community as a whole. Further, by virtue of the dispersal of social roles amongst the individuals of a community, there is also a concurrent assigning of social functions and social practices. These functions and social practices also stand in relation to one another, since they share similarities and differences with each other– for instance, the social practice of telling a story to a child has similarities and differences with recounting the events of a day at work. Thus, viewing linguistic activity in a community tends to view a language as comprising a relationally configured, multivariate resource of functions that are invoked when people make meanings through a language.

It is this latter view that is adopted in this thesis. It is assumed that the activity of scientific and medical description and theorisation in ancient Greece was not carried out by individuals operating totally alone, using nothing other than the mental processes whose character was completely unique to those individual. Instead, these individuals were located in a social community bound together by many social functions, among which are those associated with 'creating knowledge' and

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<sup>17</sup> This appears to be the case with the transformational and generative approaches to grammatical description. See Lyons (1970) p.74-79 for the description of Chomskyan transformational analysis which is essentially geared towards determining the grammatical constituency of sentences produced by a given individual, and the generally 'syntagmatic' approach to structural description.

performing conscious reflection on the experienced world. This is most directly reflected in the Greek authors under examination in this thesis. We presume Homer to be the foremost exponent of the oral epic tradition in Greece, and thus in interaction– directly or indirectly– with other oral poets. We see Herodotus as being the first major historian in the Western tradition, but at the same time he is predated by the literary tradition of 'logographers' in Ionian Greece, and surrounded by a culture that regarded oratory, persuasion and 'rational enquiry' as important activities, as was his later contemporary Thucydides. The Hippocratic doctors– of whom Hippocrates is the most well-known– formed a 'semi-professionalised' society whose members interacted with each other and taught each other. A linguistic characterisation of these texts using a functional framework provides the potential for explaining how these texts relate to the social environment in which they were created and first received.

Secondly, it is also assumed that this 'speech community' made meanings through their language that were in some way distinctive– that the meanings that they made were at least in some way characteristic of, and essential to, the kinds of social activities that they performed to create this knowledge in the public domain. If a linguistic analysis is to make meaningful statements about this activity, then it is essential that the analysis is grounded in the view of ancient Greek as being a semiotic resource for 'meaning making' in the context of the social and cultural activities of its speech community. Therefore, the linguistic analysis will be grounded in functional, rather than structural, theories of language, where the imputed functions of ancient Greek are explicitly related to social and cultural activity rather than to some context-independent 'realm of meaning'. In essence, ancient Greek will be viewed, in Halliday's terms, as a 'social semiotic'<sup>18</sup>.

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<sup>18</sup> This is ultimately derived from Saussurean semiotics– see Thibault (1997) p.19-50 for a discussion of this.

## 2.3 Language strata

### 2.3.1 Semantics, lexicogrammar, phonology

All theories of language so far recognise that there are at least theoretically separable levels or strata in a given language, and in languages in general<sup>19</sup>. It is recognised that all languages have a means of expression– usually distinct sounds made by the vocal tract, but written forms of a language also make use of orthographic forms on a suitable medium, and sign languages employ ensembles of distinct upper limb movements. In a given means of expression, it is also recognised that some particular features 'count' as part of a language, while others do not. For example, in spoken language, the sounds of a language are considered distinct from coughs, stutters and throat clearing.

Secondly, it is also observed that people produce and comprehend a language in units that are combinable with each other to produce still larger units. The features of these larger units are a function of, but not entirely predictable from, the smaller units that are combined to form them. Furthermore, such combination is not random– for various reasons, there have become established certain ways of combining units, and the resulting larger units are in many ways 'defined' or recognised by the particular process of combination that formed them. This is often referred to as a language's 'means of wording'.

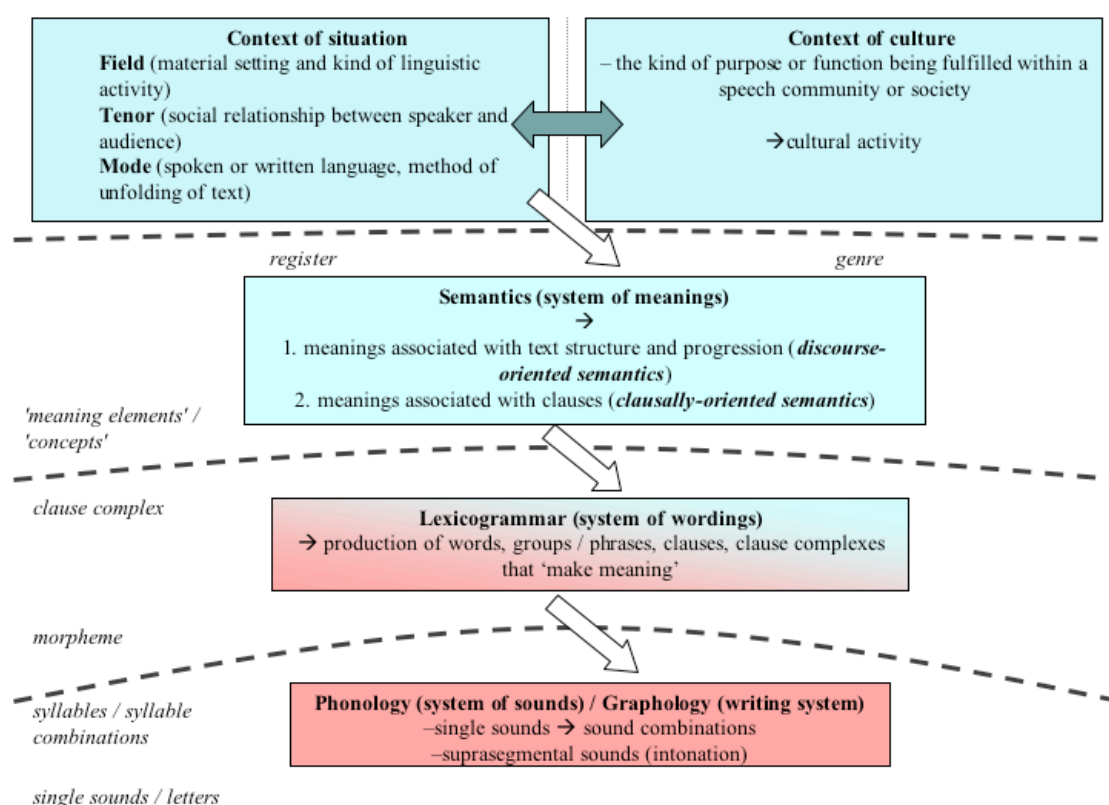
Thirdly, all natural languages involve meaning. Meaning– however it might be characterised– is considered one of the central features of a language. A language's means of expression and wording are thought to 'subserve' the creation of meaning, and it is the notion of meaning on which the concept of communication is predicated,

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<sup>19</sup> The generative and transformational approaches to linguistics also assume the existence of these levels in a linguistic theory– see Lyons (1970) p.79 on Chomsky's model of transforming components to result in the production of sound and meaning, derived from his work in *Aspects of the theory of syntax*.

as this is thought to involve the 'conveying' (however misleading the metaphor might be) of meaning, and thus form the basis of how two or more people in a given speech community understand each other. If one were to consider language as a semiotic system— a system by which signs are made— then the concept of meaning in language is unavoidable.

Therefore, any comprehensive linguistic theory has to embody the theoretical formulation of three distinct strata in a language— expression, wording and meaning. For most natural languages (and excluding sign languages for the rest of this discussion), in the systemic-functional model in linguistics, this equates to a tri-stratal model of language as semantics, lexicogrammar, and phonology.



**Figure 2-3 The tri-stratal model of language grounded in context (based on Halliday (1994), Matthiessen (1995), Halliday and Matthiessen (1999), Butt, Fahey et al. (2000), Butt and Matthiessen (draft, 2000) )**

### **2.3.2 Interstratal relationships and realisation**

A linguistic theory has to extend beyond merely positing this model of three theoretically separable strata. It must also specify as much as possible the relationships between these strata, because the processes that take place in each stratum do not occur in isolation, but are interdependent. One can only mean by also wording and making sounds, and, conversely, any sounds produced are only recognised as linguistic because they are deployed in the process of wording and meaning. Wording in a language is only recognised as such because, firstly, it is 'meaning bearing' or 'meaning creating', and, secondly, it is discernible through the particular patterns of sounding by which wording is expressed. Therefore, interstratal relationships need to be elucidated. In particular, the relationship between semantics and lexicogrammar needs to be emphasised, because the notion of grammatical metaphor is predicated on a particular conception of this relationship. In addition, in a linguistic theory, one has to explain more generally how lexicogrammar comes to be 'meaningful'. This relationship can be roughly summarised in the following way: 'Semantics is realised by lexicogrammar'. This statement will be modified somewhat, particularly by the notion of 'metaredundancy'; however, realisation is the key concept in this relationship.

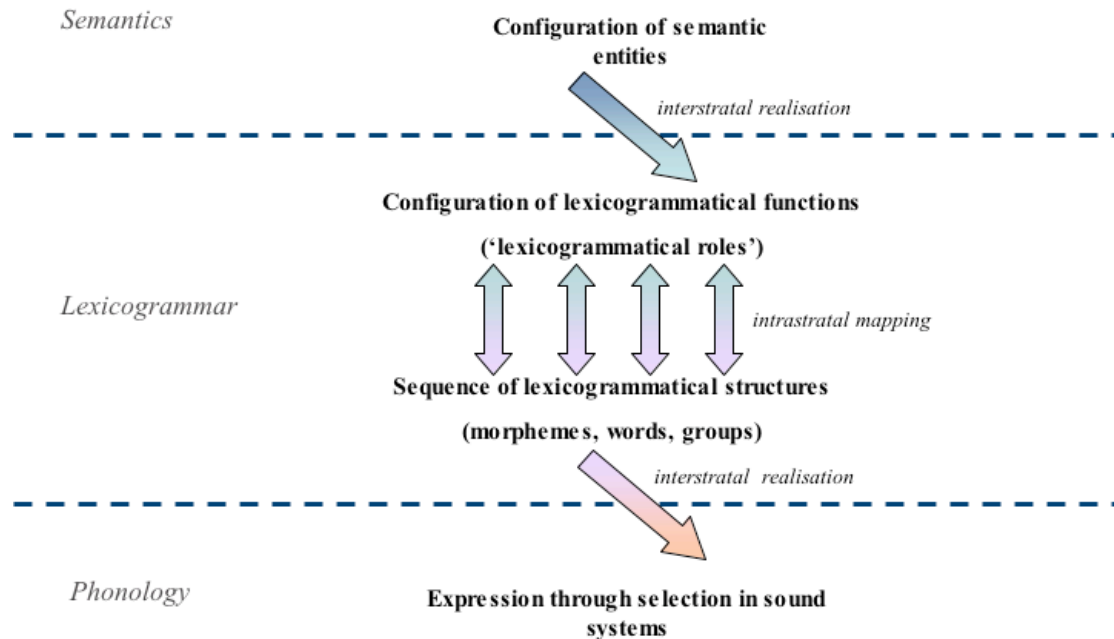
It is useful to think of this concept in etymological terms– that it involves 'making something (more) real' or more discernible to the senses. In this sense, the lexicogrammar of a language makes the semantics 'more real' by enabling relatively stable associations between it and patterns of sounds which are the more material, 'real' aspects of a language. So, lexicogrammar is not simply 'wording' in its intransitive sense; it is the stratum that 'words semantics'. This is important because the lexicogrammar provides functional categories that can be mapped onto elements of form, which in turn have the potential to be further decomposed into units that can be expressed in the phonological system. So, in this sense, the lexicogrammar makes the semantics 'more real'.

It is important to emphasise that one of the features of the lexicogrammar in a language is that it can be dually characterised in terms of structure and function, and this dual characterisation can be carried out to a greater extent than with other strata. This has already been alluded to earlier in this discussion. However, this is a feature of the lexicogrammar noted by Halliday in his formulation of the functional grammar of English. Firstly, it can be thought to involve functional categories– such as participants and process in a clause, and the various functional configurations of individual participants (such as the Deictic / Numerative / Epithet / Classifier / Thing / Qualifier configuration of participants<sup>20</sup>). However, it also can be thought to have constituent structure– a clause is constituted of groups, in turn constituted of words, in turn constituted of morphemes. The functional and structural aspects of the lexicogrammar are in a sense mutually determining– we only recognise a functional element of a clause because it is often mapped onto a structural constituent, and vice versa. But in any case these two aspects can be separated from each other in the theory that guides the characterisation of the lexicogrammar of a language.

This theoretical separation allows us to more clearly see how a language's lexicogrammar realises its semantics. In this process of realisation, particular features of the language's semantic system become associated with certain lexical and grammatical functions of clauses. These functions are in turn mapped onto structural constituents of clauses, which then have the potential to be realised by the phonological system. So, in essence, the dual complementary nature of the lexicogrammar enables the realisational relationship to occur. It is quite possible that the other strata of language– such as phonology and semantics– also have a dual complementary nature that affords their realisational function, but full discussion of this issue lies outside the scope of this thesis. The main point of discussion of linguistic theory, given the concerns of this thesis, will be the semantics-lexicogrammar relationship.

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<sup>20</sup> See Halliday (1994) p.180-191 for the functional configuration of the nominal group in English.



**Figure 2-4** The mapping of lexicogrammatical functions onto lexicogrammatical structures

### 2.3.3 Metaredundancy

It was mentioned previously that the statement 'semantics is realised by lexicogrammar' simplified the actual state of affairs with regard to the relationship between these two strata. The notion of metaredundancy modifies this statement to 'semantics is realised by *the realisation of lexicogrammar in phonology*'. The notion of metaredundancy was first raised by Lemke and supported by Halliday in his characterisation of the nature of realisation. The reason for invoking this concept is as follows. The first reason is one of trying to simplify the logic of the statement of realisation within the context of the entire linguistic system. We have the initial statements

1. For a given language, semantics is realised by lexicogrammar



2. For a given language, lexicogrammar is realised by phonology.

However, these statements can be collapsed down into one, because lexicogrammar is not an endpoint in linguistic systems; lexicogrammar only exerts its presence by itself being realised in systems of expression such as the phonological system. And so we have the resulting statement

3. For a given language, semantics is realised by the realisation of lexicogrammar in phonology.

It would also be possible to extend this concept of metaredundancy to other realisation relationships, such as 'the context of culture and situation is realised by the realisation of semantics in lexicogrammar', or 'lexicogrammar is realised by the realisation of phonology in articulatory phonetics'. However, the main point of metaredundancy is this. It emphasises that in the stratified systems of a language, ranging from context to phonology and phonetics, there are no series of intermediate products at each stratum which have to be 'transformed' from one to the other. These products are only the result of some kind of linguistic theory that overtly states or implicitly assumes the independent existence of such products. Instead, the stratified systems of language are conceived of as a complex of interrelated processes that are hierarchically arranged.

However, for the purposes of this thesis, it becomes unwieldy to continually restate this character of realisation precisely in the language used here, particularly as the notion of metaphor depends heavily on the concept of realisation. Instead, realisation statements will take the form 'x is realised by y' as being shorthand for 'x is realised by (y being realised by z)'.

### **2.3.4 Non-conformal realisation**

The other important feature of realisation to note is that it is not a static, unchanging process. Instead realisation is a complex, fluid interstratal relationship; this is

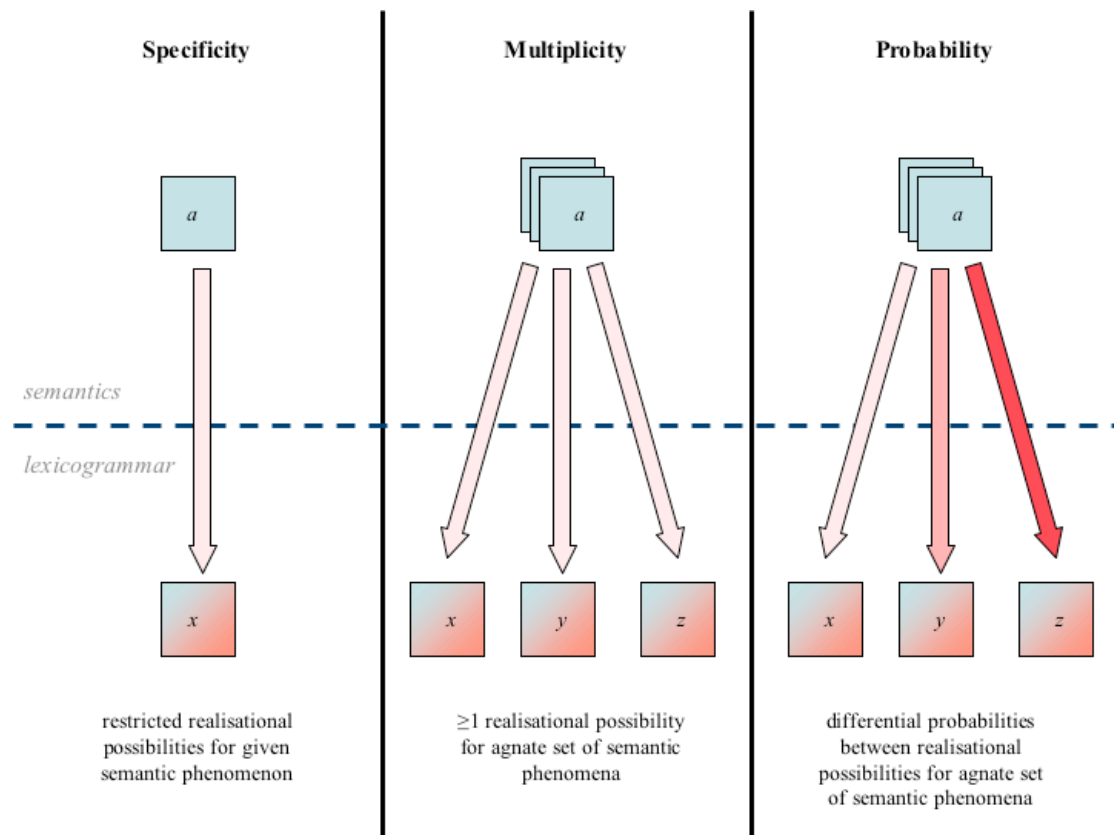
particularly the case in the relationships between the 'higher' strata. The complexity and fluidity lie along three dimensions. The first of these is one of specificity– 'what in stratum x realises / is realised by what in stratum y?'. This dimension is fluid because what may be realised by one means may be realised by another means at some other point in time. The second dimension is one of multiplicity– 'how many realisational relationships does a given entity in stratum x have in stratum y?' It can be quite easily seen that multiplicity can vary between different points in time. For instance, a given set of meanings may be expressed through the lexicogrammar in different ways at a given point in time in the systems of a language. In Greek, these three sets of clauses have different lexicogrammar:

1. ek Spartôn ekhôrêse pros Athênas ||  
'he proceeded from Sparta to Athens' ||
2. ek Spartôn pros Athênas khôrêsis autou ên ||  
'his progress was from Sparta to Athens' ||
3. exîôn ek Spartôn || Athênasde êlthe ||  
'leaving Sparta, || he went Athens-ward' ||

But these three lexicogrammatical expressions express or realise an equivalent or agnate semantic configuration.

The third dimension that may be considered in realisation is probability. If one considers the above examples hypothetically, it may be the case that, for a given author, or at a given context or text type, or at a given stage of the evolution of Greek, a given configuration of meaning is more likely to be realised through one means than another in the lexicogrammar. This probabilistic nature is a major determinant of the 'strength' of realisational relationships. In the system networks that are formulated by systemic-functional linguistics, it has long been recognised that certain selections in the system network used to describe a given stratum are, in a given context or set of contexts, probabilistically more likely to be selected than others. There is no reason

why the principle of probabilistic behaviour not only applies to phenomena within a stratum but also to the realisational relationships that obtain between strata.



**Figure 2-5 Three dimensions of interstratal realisation**

Specificity, multiplicity and probability are the major dimensions along which realisational relationships vary. It is a way of specifying what appears to be inherent to realisational relationships– that they change, and that this non-conformality is one of the major engines of change in a language. It is also what the phenomenon of metaphor depends on, because it involves changes in the probabilities of selection between strata, and in realisational relationships. However, what realisation, and metaphor, depend on is a specific conception of change over time in a language.

## 2.4 Linguistic and semiotic time

One of the major characteristics of any language is that its various features and characteristics are subject to change. Change can occur in a language in any of its strata, or a combination of strata concurrently. But change, of whatever nature, occurs over time. It can occur over any kind of length of time, and such change can occur in any number of people in a speech community, whether it is in one individual or groups of interacting people or the entire community. For these reasons it is essential to characterise time not as a homogenous entity but in several, ultimately interrelated perspectives. Once this is done, certain kinds of linguistic change such as metaphor can be described more specifically with reference to speakers and their social and linguistic context.

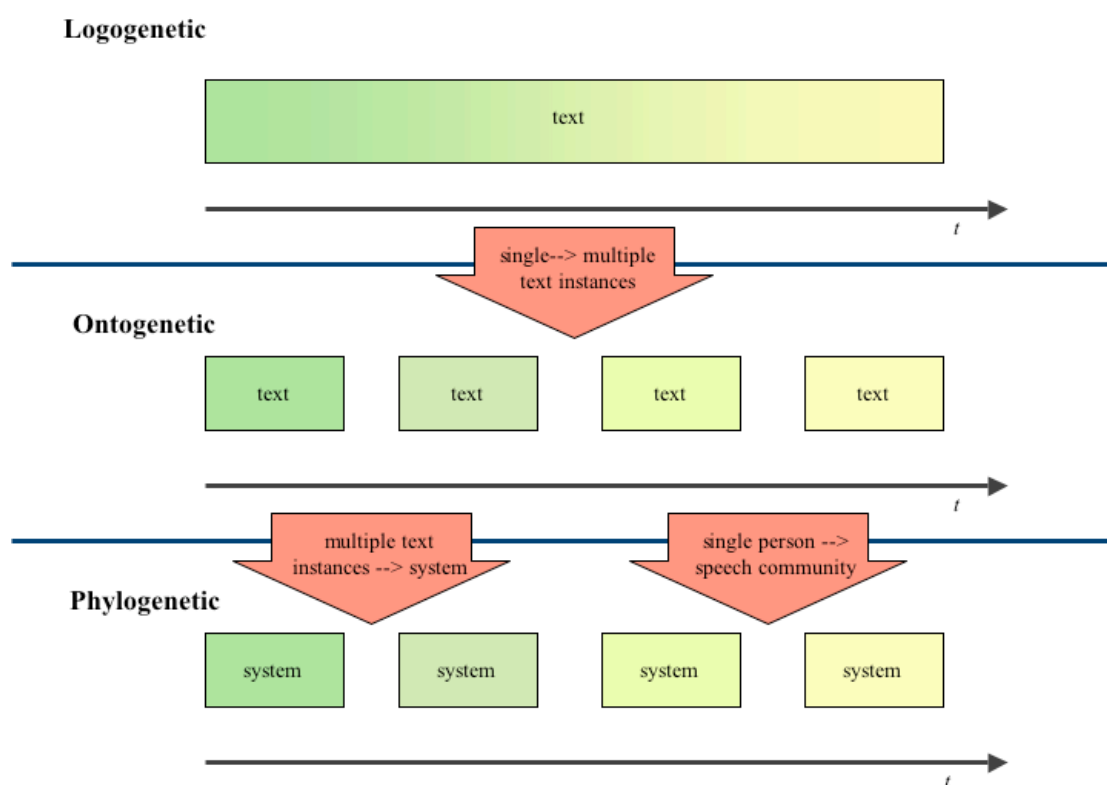


Figure 2-6 Three dimensions of linguistic and semiotic time

### 2.4.1 Logogenetic time

One axis along which time can be considered in the context of the use of a language is the logogenetic axis. Simply put, logogenetic time is the time taken to produce a given text. What constitutes a single given text is controversial, especially what separates two discrete texts from each other. This is particularly an issue for ancient Greek texts<sup>21</sup>. In its most extreme interpretation, the total language events in which a speech community engages in its entire history can be considered one large text. A full discussion of what constitutes text boundaries is outside of the scope of this thesis; however, the broad outline of the characteristics of a single text as stated in Mann, Matthiessen and Thompson is a useful starting point<sup>22</sup>. According to their formulation– grounded as it is in a functional perspective on language– a single text is a constellation of interrelated linguistic events (at the levels of phonology, lexicogrammar and semantics) that gives rise to a relatively large, unified linguistic entity that has a certain internal organization. The organization of this entity– a text– gives it a unity and coherence with respect to the overall social purpose of the producer(s) of the text. So, in this sense, a text is the linguistic manifestation of a distinct unit of linguistic social activity whose organisation is reflective and constitutive of that particular activity. In short, a text is an instantiation of linguistic systems which has a relatively unitary function in a given social and semiotic context.

To restate the point, logogenetic time is the time taken to produce a text so defined. Therefore linguistic processes involved in the unfolding of such a text can be described with reference to the timescale involved in text production. Certain linguistic phenomena can be said to occur earlier in text production than others. More specifically, the process of metaphor (lexical or grammatical) can be described in this way– for instance, a means of expression in the lexicogrammar of a given agnate set of semantic phenomena may be thought to be more 'non-metaphorical' in earlier

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<sup>21</sup> This is particularly the case with large-scale works in Greek. The Homeric epics are usually regarded as an agglomeration of separately produced epic stories (see Parry and Parry (1971) ) and in particular Herodotus' history can be seen as a collection of interrelated *logoi*– for this, see Immerwahr (1986) and Lang (1984).

<sup>22</sup> See Mann, Matthiessen et al. (1992) p.43-44.

sections of the text and more 'metaphorical' in later sections of the text. This will be discussed in more detail in the discussion of metaphor later in this thesis.

### **2.4.2 Ontogenetic time**

The second axis of time in which linguistic activity can be considered is the ontogenetic axis. This is the time taken for an individual to develop throughout his or her lifespan. It is expected that one's participation in the systems of a language changes throughout their lifespan; their patterns of usage of a language's systems (whether phonological, lexicogrammatical or semantic) changes accordingly.

Most studies of language in its ontogenetic dimension focus on children's language development. This is in many ways a natural place to start, since children's use of language most obviously differs between infancy, early childhood and later childhood— where a child starts with almost random vocalisations and vocal tract sounds not associated with linguistic activity, and then becomes gradually apprenticed into a community's means of semiosis, by developing the linguistic systems to enable such semiosis.

However, the early years of life are not the only period in which an individual's language systems develop. It is well acknowledged that an individual's patterns of usage occur in late childhood and into adolescence, where they participate in different kinds of schooling and become apprenticed into relatively 'abstract' domains of experience and modes of thinking. In particular, during this period, they are apprenticed into 'grammatical metaphor' in order to deal with these abstract domains<sup>23</sup>. It is expected that as they progress through secondary schooling and come across new kinds of abstract thinking and different concepts, the linguistic systems that they use will change accordingly. It is also expected that, throughout the adult

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<sup>23</sup> For a detailed consideration of this in English, see Derewianka (1995) which examines how children are gradually apprenticed into scientific genres through learning the process of grammatical metaphor, and thus develop resources for technicality and abstraction.

lifespan, linguistic change will continue to occur; so long as one's experience of the world in and through the community is varied, their patterns of linguistic usage will continue to change. Even so, such change is with respect to the ontogenetic dimension of time.

Ontogenetic change in linguistic systems can affect any stratum or combination of strata. This is well known in the case of children; they need to learn linguistic systems 'from the ground up', and this necessarily involves all linguistic strata. However, any stratum can be subject to change throughout the adult lifespan, whether it be the creation of new meanings and the redeployment of grammatical resources to construe new experiences, or changes in phonological systems with exposure to dialectal variants or changes in socioeconomic circumstances. Thus, ontogenetic change in a language is not confined to the childhood period; it is equally applicable to adults, such as the authors of Greek texts. It is another issue whether this can be demonstrated through the ancient Greek that is available to us. However, there is some scope for ontogenetic study of Greek in certain research contexts— particularly when we have several works by the one author whose working life spans a considerable period of time, such as the tragedian Euripides and the philosophers Plato and Aristotle.

### **2.4.3 Phylogenetic time**

Phylogenetic change in a language refers to the broad area of study of much of diachronic linguistics. It refers to the change in a language's systems during the period of the history and evolution of the language in its community of speakers. Much of comparative IE linguistics focuses on phylogenetic change, whether it be the change in phonological choices in a given environment, the divergence of phonological systems in related languages, the reconstruction of the phonology and

morphology of ancestor languages, or changes in word order from one period of the language to another<sup>24</sup>.

Many of these phylogenetic studies focus on those parts of a language that are amenable to an analysis in terms of structure. Hence, these studies examine phonological and morphological features, look for similarities and differences in the phonology and morphology of related languages (whether these languages stand in a cognate relationship or an ancestor-descendant relationship) and then propose a 'chain of events' in these levels of language that describes evolutionary change in a language or set of cognate languages. Phonological and morphological relationships that obtain between languages are often thought to be indicative of a relationship between all strata of the languages in question. In any case, the arguments are made primarily in terms of a structural analysis.

With a substantial functional theory of a language, however, it is also possible to look at changes in function over the evolutionary history of a language. In particular, changes in the systems at each stratum of a language could be tracked over time as an indication of how the functions of a language change in a community over time, and, narrowing the focus of such studies, to see what functions operate in a subsection of the community that is engaging in a particular kind of semiotic activity, such as scientific enquiry. The semiotic activity of a particular social group could potentially be related to that of the speech community as a whole. Such 'functional change' over time is what is the central concern of this thesis.

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<sup>24</sup> For a focus on phonology and structural morphology in a comparative IE context, see Beekes (1996) p.54-71 for the positing of 'sound laws' to explain sound change over time in IE languages, and *ibid.*, p.98-105 using techniques for the 'reconstruction' of ancestor languages or previous evolutionary stages. For phylogenetic change in clausal elements and their configuration in Greek, see, for example, Horrocks (1997) p.27-31 (the convergence of Attic and Ionic dialects reflected in changes in case of nominal groups with certain process types and transitivity) and p.59-61 for 'changes in word order' associated with 'clitic pronouns' in the development of Hellenistic period Greek.



A phylogenetic study in terms of language function makes an additional contribution to the diachronic study of a language over and above what a study in terms of structure can provide. A functional analysis is ultimately grounded in terms of a social and material context in which a language operates. Consequently, a functional approach to phylogenetic change is likely to provide an explanation of *why* such change occurs. Such an explanation will be given in terms of what a speech community does in its social operation. An analysis driven purely by a structural perspective can only state change in terms of structure but not given a full explanation of why such change has occurred. Thus functional analyses of diachronic linguistic change may be important in exploring issues of how linguistic change is socially and materially motivated, either in the context of the speech community as a whole, or a section of that community that is engaged in a distinct form of social and cultural practice.

#### **2.4.4 Interdependence of time axes**

Again, this notion of three time axes in the process of semiosis is a theoretical conception. Ultimately, in any instance of language use, all three dimensions of time are in operation, and change in one axis necessarily implies change in the others. This has implications for the linguistic analysis of any text. It is important to be explicit about what kind of linguistic change is occurring along what time axis as a text is produced. Initially it would seem obvious to say that the change must be logogenetic; however, because the text is produced by an individual (in the case of the texts under consideration in this thesis) who lives in a community of people who engage in the same sphere of cultural activity (in turn in the context of the larger speech community), the logogenetic production of an individual text has implications for the ontogenetic and phylogenetic dimensions of a language.

In the case of the authors' texts that are under analysis in this thesis, a text is produced by an individual. Most obviously, it takes this individual a certain amount of time to produce this text– no assumption is made about how 'linearly' this text is produced– and so this is a process that is taking place in logogenetic time. However, at the same

time, the linguistic systems of the author are ontogenetically changing. This becomes apparent when one considers in more detail the nature of linguistic systems; however, in short, any use of a linguistic system changes the probabilities of selection of particular linguistic choices at a given stratum. Furthermore, in the functional view of language, any change in one stratum has potential implications for the nature of the other strata. For instance, the use of the lexicogrammar can be thought of as 'semogenic'— that is, it is a resource for creating meaning. This is particularly the case with grammatical metaphor, where the use of particular grammatical selections in the context of creating 'new knowledge' creates new meanings in that domain of knowledge<sup>25</sup>. In addition, changes in the meanings created in a text can have implications for any subsequent organisation of that text. For instance, if one introduced into the unfolding of a text meanings to do with likelihood (which may be realised in the lexicogrammar of Greek by lexical items such as *eikos*, by 'irrealis' verbal modality such as the subjunctive, and by causal or conditional clause complexing), this makes it more likely that the overall structure of the text will take the form of an 'argument from probability'. This is simply to say that an author's linguistic systems change over time with usage, and so an author's production of a given text is also part of that individual's linguistic development.

On this interpretation, it seems that there is very little difference between logogenetic and ontogenetic processes. However, the crucial difference is this. Logogenetic changes— that is, changes considered only in their logogenetic aspect— only have implications for the subsequent production of a single given text. In contrast, changes considered ontogenetically have implications for that individual author's subsequent production of other texts at a later point in time. This further emphasises that these dimensions of semiotic time are simply applied as different point of view— from the point of view of text unfolding, and from that of an individual's trajectory of linguistic development— on any given linguistic phenomenon.

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<sup>25</sup> For a full discussion of the semogenic nature of the lexicogrammar, see Halliday and Matthiessen (1999), particularly p.18-25.

In a similar fashion, the phylogenetic dimension is an additional perspective, taken from the point of view of the evolution of the linguistic systems at the general disposal of a speech community. If an author is part of a speech community, then any linguistic activity in which that individual engages is part of the overall linguistic activity of the speech community. Therefore, any change in the linguistic systems of that individual constitutes change (however small) in those of the speech community<sup>26</sup>. The extent of the impact on community systems depends on whether other socially related individuals engage in the same kinds of linguistic activity; however, whether the impact is large or small, it is still the case that individual change in language behaviour constitutes change in the linguistic behaviour of the community.

So, how does this affect how one views an individual text in an analysis and how it relates to the author and the speech community? Of course, a text most directly reflects semiosis along the logogenetic dimension. It is accepted that the production of the text may not necessarily be in a simple linear fashion; one must assume that in any literary text there will have been a number of revisions to material written previously. However, it is always the intention of the author that the text in its 'finished' form be read or heard in a linear fashion. In this reception of the text, the text creates meaning logogenetically in a linear fashion. In the case of the texts of ancient Greek, we are in this position of receiving texts. Therefore, in analysing these texts we are examining logogenetic semiosis within a 'context of reception' of these texts. Although we can assume that the production of the text coincided with a period of the lifespan of the author, we have less access to ontogenetic semiosis. We do not have any access to the way in which these texts were produced in real time, particularly if we assume that literary texts are produced non-linearly. It is quite possible that given stretches of text were produced linearly without any subsequent revision, but we do not know definitively which stretches these are. Therefore, the texts under study in this thesis indirectly reflect ontogenetic semiosis.

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<sup>26</sup> This argument make use of the concept of instantiation, as it assumes that, in social and cultural terms, an individual is the product of the social and cultural systems of the community– see later.

The question of whether a given text reflects phylogenetic semiosis is complicated. An answer to this question requires consideration of the issue from two perspectives. The first is the relationship between individual and community language use; the second is the extent to which a given text is representative of other texts of the same genre and register type. With respect to the relationship between individual and community linguistic systems, we would certainly expect that the semiosis of a literary text in its reception changes the linguistic systems of the speech community and its attendant semiotic processes, in however small a fashion. This is simply by virtue of the fact that the ontogenetic and phylogenetic dimensions are interdependent– the social and cultural activities that an individual engages in are an instantiation of the social and cultural processes in his or her speech community.

However, the phylogenetic implications are considerably increased if we consider the text to be in some way typical or representative of other texts. This is the general assumption made by many studies of ancient world literature and intellectual activity, such as Geoffrey Lloyd's investigation of the development of ancient science and medicine; it is assumed that individuals are involved in some kind of social network with other individuals who engage in the same kinds of cultural practice, communicate with other about these practices, and are therefore likely to share some 'common ground' in their intellectual, semiotic activities. If we consider a given text in this way, we then assume either or both of the following– that more than one person in the speech community engages in the same kinds of semiotic practices, and / or that the same person engages in that particular kind of semiosis on an ongoing basis. This makes it more likely that the text in question produces semiotic patterns that significant parts of the speech community produce; this is because the more a particular kind of semiosis occurs, the more likely it is to be codified at some point in the linguistic systems of the speech community<sup>27</sup>. Therefore, semiosis in a given text, with these assumptions, reflects to a significant extent phylogenetic semiosis. It

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<sup>27</sup> For a more precise formulation of the notion of codification in functional linguistics, see Halliday and Matthiessen (1999) p.22-25, particularly in relation to systems in the strata of lexicogrammar and semantics.

follows that performing a linguistic analysis of a given text in a given genre will result in statements about the linguistic characteristics of the text that will to a substantial degree hold for texts of the same genre and register. These texts are produced by socially interacting individuals who constitute at least a subsection of a speech community engaged in a particular kind of cultural activity. It therefore follows that analysing a text primarily reveals logogenetic semiosis, which is then assumed to inform, and be informed by, phylogenetic semiosis. This process indirectly reflects the ontogenetic semiosis of the author.

We can take the Hippocratic corpus of medical texts to be a case in point. It is generally regarded that this collection of material, owing to large differences in style, subject matter and divergences in theoretical positions, to be a multi-author corpus of texts. Even so, all of the authors are generally (and reasonably) assumed to belong to a medical profession, where there is some formal training and education in medicine, and therefore a great likelihood that medical knowledge was socially communicated and shared between members of that profession and those being apprenticed into it. This profession constitutes a speech sub-community in its own right, engaging in distinct semiotic practices that in a significant way define that profession; but they are also part of the larger community that engages in conscious enquiry of the experienced world, and the ancient Greek speech community as a whole. We therefore expect that the semiosis of a single text of that corpus reflects to at least some degree the phylogenetic semiosis of the medical profession that has developed distinct cultural practices as a subvariety of those of the whole speech community. This is thought to be substantially reflected in the logogenetic semiosis of the text in its own right. Similar cases can be mounted for those authors engaging in historiography, and performance genres such as legal oratory and tragedy.

However, at the same time we do not expect the author of that text to be an exact 'parrot' of those socially-based cultural practices. Any author will develop their own individual experience and individually formulated opinions in the texts they create. It will always be problematic as to what the relative proportional contributions are of both the author and the social community in which they participate. Some progress in

answering this question may be made when we consider the nature of linguistic systems later in this discussion.

## **2.5 Systems in functional linguistics**

An additional concept that can be introduced into a functional conception of language is that of systemic organisation. It can be simply put that each stratum of language can be thought of as being organised into a system or a constellation of interrelated systems. However this statement needs careful clarification, because we have not so far specified what a system is in the context of functional linguistics, and how the functional roles in a particular stratum can be said to be organised systemically.

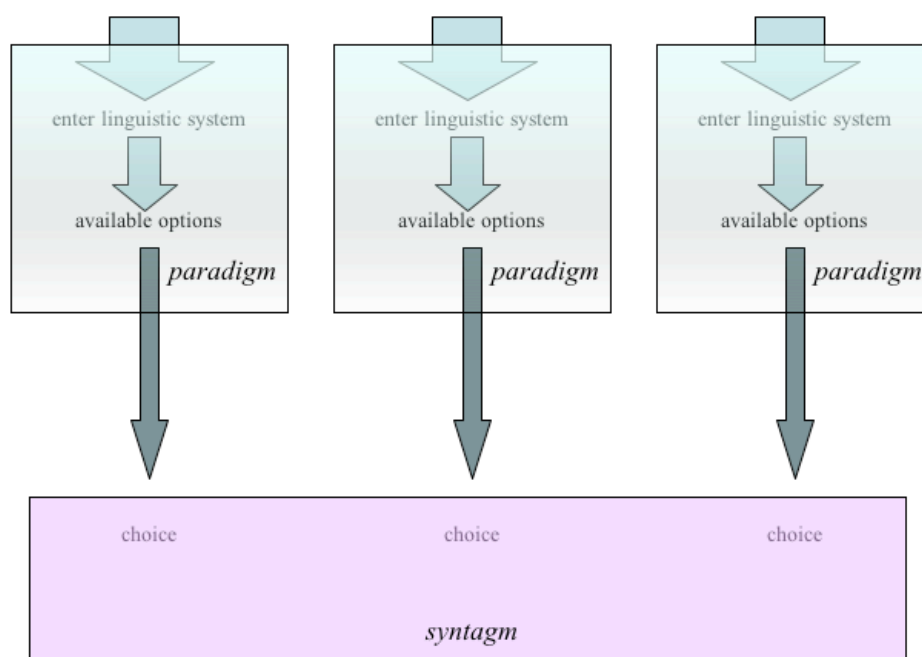
### **2.5.1 Syntagmatic and paradigmatic organisation**

When systems are discussed in the context of functional linguistics, what is being emphasised is the paradigmatic organization of functions in a given stratum. This is a complementary perspective to the syntagmatic organisation of functions in a text or series of texts.

### **2.5.2 Syntagms and structure; paradigms and choice**

The distinction between syntagmatic and paradigmatic organization was one made very early on in modern linguistics by Saussure. It is helpful to look at the syntagmatic perspective first. In a given length of text one or more clauses long, functions (and indeed structure) are put together with each other, and this results in an 'unfolding' of a configuration of functions (or structure) as a text progresses. A syntagmatic approach to language studies this unfolding process, and how the resulting configurations are put together in a text.

A paradigmatic approach to language studies a text in terms of what options or choices are available to the producer of a text to put the text together. Each of the functions or structures that are found in a text is considered to be the choice made from among a set of related functions or structures. There are also choices made in combining these functions in a text in a certain way– particular ways of combination are chosen over other others– although, as will be seen from an examination of lexicogrammatical systems, this is ultimately related to the choice of individual functions.



**Figure 2-7 The relationship of paradigms and syntagms**

It may very well be that an association with the structural / functional perspectives is likely to occur. When looking at individual syntagms, it appears that the most readily apparent feature of the syntagm for exploration is its structure; this is because the notion of structure is necessarily implied when one examines how the syntagm is 'put together'. Hence structural approaches to a language are likely to adopt a syntagmatic perspective as well. However this association is not a strong one; it is quite plausible that one could study the configuration of functions in a given stretch of text, and

indeed this is what happens when one does a clause-by-clause functional analysis. However some theories that examine functions in a text as it unfolds will often look at these functions as being configured into some kind of structure. For instance, Mann and Thompson's theory of discourse approaches a text initially from the syntagmatic point of view; the results of the analysis guided by the theoretical concepts result in a description of a structured configuration of functions<sup>28</sup>. It is for this reason that this theory is therefore, unsurprisingly called 'rhetorical structure theory'. However this does of course not preclude organisation of the stated functions into sets of paradigmatic choices in a later formulation of the theory; even for the analysis of an individual text, one can build an 'instantial system'<sup>29</sup>.

However, it is also highly plausible that functional perspectives on a language will lend themselves to stating those functions in a paradigmatic organisation. This is what is implied by Saussure's conception of the sign. He emphasised that signs—being the basis of a linguistic or semiotic system— are relational in character, and that, in essence, signs are distinguished from each other by similarity and difference. The study of function is intimately associated with the notion of signs, because the study of functions is with the aim of elucidating a semiotic system— a system of signs. Therefore it makes sense that functions are also relationally organised, and therefore lend themselves quite easily to paradigmatic formulation.

### **2.5.3 Paradigms in traditional grammars**

One obvious example of the paradigmatic perspective in classical language linguistics is that of word class paradigms, typically the nominal conjugations and verbal

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<sup>28</sup> See Mann and Thompson (1992) p. where there is diagrammatic representation of the semantic structure of the text.

<sup>29</sup> See Matthiessen in Butt and Matthiessen (draft, 2000) p.351-383 where, in the lexicogrammatical stratum, the building up of an instantial system is described for single texts. Particular examples include the description of the endophoric reference system for a single narrative text (ibid., p.355-359) and for experiential systems being logogenetically built up through narrative and brochure description (ibid., p.360-372).



declensions<sup>30</sup>. If we look at any of these paradigms, each member of the paradigm is related to the others in some way– that is, each member shares similarities and differences with the others. In the case of the paradigms set out in traditional grammars, these relationships may be on various bases. The relationship may be based on form, such as similarities in phonological form or morphological characteristics. Relationships in these paradigms are also on a functional basis. For instance, in a noun declension, each of the members of the declension is able to fulfil the role of a participant in a clause. However, they differ functionally, in that they fulfil different kinds of participant roles– in Greek, these functional differences are mapped onto different structural elements, and therefore manifest as morphologically marked case differences in the paradigm. These similarities and differences provide the basis for the relational organization of the word paradigm in the traditional grammar of Greek.

The paradigms discussed above are generally of word classes– either in terms of their morphological form or their functional potential in a clause in a text, or a combination of the two<sup>31</sup>. This feature of traditional grammars immediately opens up the possibility of extending the paradigmatic aspect to all aspects of wording in a grammar of Greek. If a nominal or verbal paradigm can base its organization at least in part on the functional similarities and differences between its members, why cannot other aspects of the grammar, which are to do with the functional organization of clauses, be systematised on this basis? This can be at least theoretically be done; what in effect will happen is that aspects of the traditional grammar which are normally conceived of in rule form will instead be reconceived in terms of related options or choices in a paradigm.

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<sup>30</sup> In the traditional grammar, paradigmatic organization is not limited to nouns and verbs. Similar paradigms exist for other kinds of wording in the lexicogrammar of Greek– for instance, the derivation of the comparative and the superlative and adverb from the simple adjective. See Smyth and Messing (1974) p.86-90 for the paradigm of comparison of adjectives (both 'regular' and 'irregular').

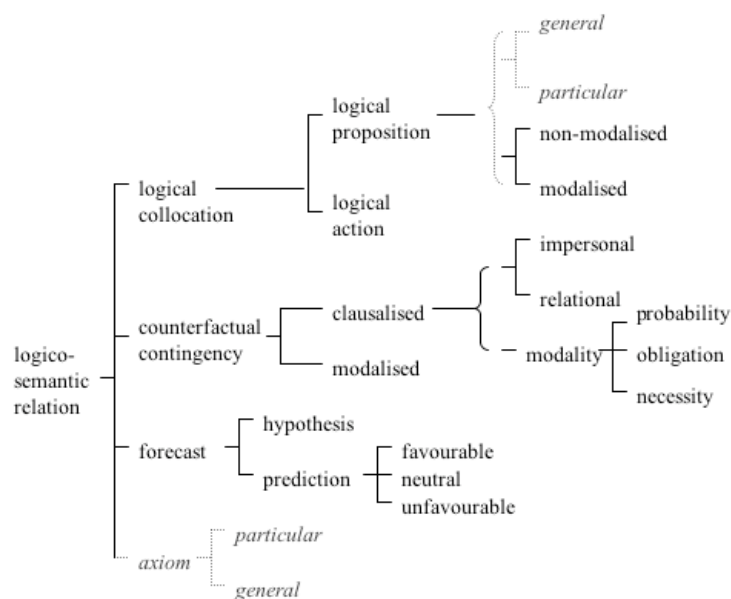
<sup>31</sup> It is noted here that the paradigms combine form with function; whether this is desirable in a functional grammar of Greek is another matter. See Chapter 3 on the need for a functional grammar of Greek.

One potential place in a grammar to demonstrate this is to try and systematise in functional terms the means in the grammar of Greek by which conditional clauses are created. This is a particular subvariety of clause complexing, since it involves a particular kind of functional relationship between two clauses that is enabled through the wording of each clause. Therefore, this is a phenomenon at the lexicogrammatical stratum of Greek<sup>32</sup>. Instead of prescribing rules for protasis-apodosis combinations, a paradigmatic system outlines the available choices of conjunction, particle and verbal functions in both apodosis and protasis, and then specifies which of these choices in both protasis and apodosis co-occur in conditional clause complexing. If conditional clauses can be systematised in this way, paradigmatic organisation can be extended to encompass many or all aspects of wording in the stratum of lexicogrammar, as has been done by Halliday and others for English<sup>33</sup>.

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<sup>32</sup> The phenomenon of clause complexing really lies at the boundary of lexicogrammar and semantic text structure such as rhetorical structure. Clause complexing is the typical means by which sequences at the level of semantics are realised, but because of the phenomenon of metaphor, this is not *necessarily* the case. Sequences can be realised by single clauses– see Halliday and Matthiessen (1999) p.124-126 – and this in itself shows that there is a resource for clause complexing at the lexicogrammatical stratum distinct from message / figure sequencing and rhetorical structure.

<sup>33</sup> See Halliday (1994) and Matthiessen (1995) for elaborate formulation of the lexicogrammar of English in paradigmatic functional terms, and in particular the latter for the setting out of the paradigms in terms of system networks.



**Figure 2-8 A provisional system network for lexicogrammatical resources for conditional clause complexing in ancient Greek: logico-semantic relations**

#### 2.5.4 The system network as the representation of a paradigm<sup>34</sup>

The typical way in which systemic-functional linguistics represents paradigms in its analysis and theorisation is by means of the system network. These networks are represented diagrammatically. The aim of these networks is to depict how functions in a paradigm– at whatever stratum of language– are related to each other. These relationships are depicted as functions organised into a system, where a system is thought of as a set of functions related to each other by the choices people make when they are engaged in linguistic behaviour. Typically there are successive waves of

<sup>34</sup> For a full treatment of the nature of system networks in systemic-functional linguistics, see Butt p.18-45 in Butt and Matthiessen (draft, 2000).

choices between functions, the end result of which there is a network of choices available, and consequent available 'pathways of choice'.

### **2.5.5 System network conventions**

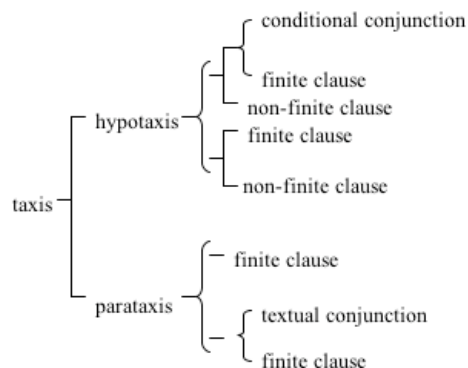
In the diagrammatic representations, there are only a few notation conventions that are used. These are principally to represent kinds of choice in the network, and how these particular choices are entered into. Typically for each point of choice there is an entry condition, followed by a particular kind of choice. These choices can be mutually exclusive– the 'a or b' choice– or the multiple choice– the 'a and b' choice. These choices may be between two or more entities at the given linguistic stratum. This gives rise to the succession of choices and 'pathways of choice' so inherent to many system networks.

Recursion is also permissible in the system network. This means that after choices are made in the network, there is facility to re-enter previously entered portions of the network. This may be to repeat the exact choice pathway, or to activate a different one in the network. Furthermore, small diagonal arrows can be used to show how particular choices might be realised in the 'lower' stratum– for instance, how lexicogrammatical choices might be realised in the phonological systems of a language. These indications of realisation are not inherent to the network, but are used as guides in its interpretation.

In their simple form, system networks often take the diagrammatic form of a tree-like structure, where individual branches of the 'tree' represent pathways of choice, originating from the main 'trunk' of the entry condition and proceeding through the increasingly smaller and smaller 'branches'. However, particularly in those networks that allow or stipulate more than one pathway of choice to be activated, these pathways can be 'bundled' together to lead to further choices in the network, or to show that the combination of these choices are realised as a single entity.

2.5.5.1 Example: conditional clauses in ancient Greek

This can be illustrated by trying to draw out the system network for conditional clauses in Greek. The main aim of presenting Greek conditional clause complexing in this discussion is to show the various network conventions in operation, and so to demonstrate what a system network is 'like'. This network does not claim to be a definitive statement on the functional treatment of conditional clause complexing; it is expected that when this network is tested against the texts in which conditional clauses occur, there will be minor or major modifications to the network as appropriate. In this light, this network in this discussion primarily serves as a demonstration of system network principles.



**Figure 2-9 A provisional system network for the lexicogrammatical resources for clause complexing in ancient Greek: taxis**

In the traditional grammars of Greek, we understand the various types of conditional clause combinations are related to each other, in the sense that they constitute a kind of clause complexing. In addition, they all share the same kind of clause complexing, where one clause is said to be the case so long as we accept the truth of the state of affairs construed by another clause. But we still understand that each kind of conditional clause complexing differs from the others in some way, and the task, as it were, of the system network is to relate these types to each other, and how someone who engages with these systems chooses between them.

The diagram is a preliminary attempt at portraying conditional clause complexing in Greek in terms of a system network. It is preliminary in two senses. Firstly, this network is based on the findings of a traditional grammar<sup>35</sup>, and in particular the functional distinctions that it makes; ideally, a system network is based on the examples of conditional clauses that one can find in a corpus of texts. Secondly, the configuration of the system network as set out here is in no sense final; even if one does base a network on a corpus of texts, this network can always be modified by re-interpretation of the corpus examples or by subsequent findings in different texts. Hence the system network represent linguistic phenomena, such as the lexicogrammar, as a continuous process rather than a static product, and is therefore subject to change.

In line with most treatments of clause complexing in other systemic-functional grammars, the initial choice node involves choice of taxis type and logic-semantic type<sup>36</sup>. We will consider taxis first. We initially consider that conditional clauses must be in a relation of hypotaxis, where the condition is 'dependent' on the main clause. However it is possible for them to be related in a relationship of parataxis<sup>37</sup>, so this choice of taxis must be allowed for. The typical hypotactic type requires the dependent clause to have a conjunction that explicitly marks out the conditional

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<sup>35</sup> This network is based on the formulation of conditional clauses found in Smyth and Messing (1974) p.512-537.

<sup>36</sup> This basic division is initially implied by Halliday (1994) p.218 and Matthiessen (1995) p.

<sup>37</sup> See Smyth and Messing (1974) p.513.

relation (typically *ei*, though this interacts with the logico-semantic type– see later) and a finite verb<sup>38</sup>, and the main clause to be finite. However, it is possible for the dependent clause to be non-finite, with a participle but without a conditional conjunction<sup>39</sup>, so there should be an option for that. In any case, the main clause usually has a finite element, unless it itself is a dependent clause in other kinds of clause complexing such as *oratio obliqua*. In the less common instance where conditional complexing is enabled through paratactic clauses, there must be some kind of textual conjunction (usually the additive *kai*) to link these clauses together<sup>40</sup>.

Plato *Theaetetus* 149b

ennôêson dê to peri tas maïas || hapan hôs ekhei, || kai rhâion mathêsê ||[ho boulomai]

Think about childbirth– || what it is like overall– || and you will more easily understand ||[what I am getting at]||.

protasis (condition)	1 α	ennôêson dê to peri tas maïas
projection: idea	1 β	hapan hôs ekhei,
apodosis	x2	kai rhâion mathêsê   [ho boulomai]

<sup>38</sup> Here, the requirement of a finite verb is that it is functionally (and typically morphologically) marked for number, which provides it with a 'valency' for a main participant in a clause and is responsible for orienting the Subject and Finite elements of the clause to the speaker.

<sup>39</sup> See Smyth and Messing (1974) p.530.

<sup>40</sup> An alternative interpretation of the use of parataxis in conditional constructions is that this is a form of grammatical metaphor, where a conditional enhancing sequence at the stratum of semantics is realised as an enhancing clause complex of result. See later on the section on grammatical metaphor (Chapter 5).

Another choice that has to be made in conditional clause complexing is of what is termed the logico-semantic type. This is a concept well used in descriptions of clause complexing<sup>41</sup>, and is used to indicate the functional relationships between clauses. It is at this point that traditional and modern functional approaches to conditional clauses diverge. Traditional approaches specify the subtype of condition in terms of the combinations of the grammatical configuration of apodosis and protasis. What the system network does instead is, in the first instance, to more delicately specify the function of the clause complexing relation itself– in terms of logical collocation, counterfactual contingency, prediction and axiom. These functional subtypes are found in the traditional grammar but under different names, such as 'simple present and past conditions', 'present and past unreal conditions', 'future conditions' (including 'vivid', 'less vivid' and 'emotional' variants) and 'general conditions'<sup>42</sup>. These functions are further delicately refined to the point where they specify the particular function of each type of clause complexing relation. This function of the individual clauses is then thought to be constituted by the configuration of functions of each clause– specifically functions of process, participants, modality and so on internal to the clause. However, because these are to do with choices internal to the clause, they are not properly part of a system network that deals with clause complexing, and so are not specified in the current network. It is assumed that the endpoints of choice in this network will feed into further (as yet unspecified) networks that specify individual clause configuration.

In this way, we are approaching conditional clauses 'from above'– that is, the primary focus is not on the morphologically marked grammatical configuration of each clause in relation to the other clause. The structural or formal aspect of the clauses (such as what morphological forms the verbs take in each clause) is backgrounded. This is particularly important, especially as there is no simple one-to-one correlation between functional and structural elements of Greek conditional clauses. For instance, it is well acknowledged that there are many rarer types of conditional complexes which are subtly different in structural terms but essentially are thought to have the same

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<sup>41</sup> See Halliday (1994) p.216, 225-273.

<sup>42</sup> See Smyth and Messing (1974) p.516, 518, 522, 523, 525-7 respectively.



function, and used as such<sup>43</sup>. Thus an approach to conditional clauses which takes the one perspective of function has advantages; if desired, one can then catalogue at a later stage what structural forms correlate to these functions, without assuming there to be a one-to one relationship. For instance, in the conditional clause network, the functional choices 'forecast: hypothesis' would correlate to the structural, morphological features of the optative in the protasis, and the modalising particle *an* plus optative form in the apodosis<sup>44</sup>, without implying in itself that this is the only structural correlate; it allows for the possibility that there might be other structural correlates to this function in other texts. Thus the system network builds in flexibility, which is a consequence of the fluidity of the systems that underlie linguistic phenomena.

The system network also allows one to revisit certain categories of linguistic phenomena at a certain stratum. This particular system network carries over from the traditional grammar the idea of a 'general condition', here represented as 'axiom'. However the functional characteristics of this appear to be the same as that of non-modalised logical collocation; the only difference with the 'axiom' is that there is some indication of the generality or specificity of the condition. So an alternative configuration of the network would see the category of 'axiom' collapsed into that of 'logical collocation'; this latter part of the network can then be enhanced with a choice between generality and specificity. This is indicated in the network diagram by the 'greyed out' sections (done here for typographic convenience rather than being part of the conventions for system network notation), to indicate that these parts of the network are especially 'subject to change'.

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<sup>43</sup> See Smyth and Messing (1974) p.514.

<sup>44</sup> This is termed the 'less vivid future condition' in Smyth and Messing (1974) p.526.

### **2.5.6 Theoretical implications of system networks**

We have presented the system of conditional clause complexing as above through a system network. The guiding principle is to how one who engages with conditional clause complexing makes choices within the paradigmatic set of functions available to them.

In representing the use of conditional clauses in this way, does one gain any more insight into this aspect of Greek over and above what is set out in the traditional grammar in 'rule' form? The advantages of the system network appear to be as follows. The network has more potential to show the process of language use, because it shows that a series of ordered choices about what functions are selected, and therefore presents potential insights into language behaviour. Furthermore, it shows that the system involved in conditional clause complexing is this process of making choices among options to lead to the configuration of the clause complex, not in the 'end products' of that process. So, in formulating clause complexing in paradigmatic form, the focus is shifted to the process, not product, of linguistic behaviour. This emphasis on process is also found in the nominal and verbal paradigms of traditional grammars. Although these paradigms are essentially oriented to the structural aspects of lexicogrammar– morphology– the setting out of these paradigms at least implicitly sets out the process of choosing amongst morphological options to attach to word stems.

So far we have outlined what advantages the system network has over the setting out of rules. These advantages are a function of the paradigmatic perspective over the rule-based structural approach. However, the system network has theoretical implications for the paradigmatic approach to language itself. We have previously said that the paradigmatic perspective emphasises the notion of available options that are related to each other. These options are related to each other by similarity and difference; however we have not said so far on what basis this similarity and difference rests. One may be tempted to say that this is some kind of 'conceptual' similarity and difference, and leave it at that. For instance, inflectional morphemes in

a nominal paradigm are similar in that they have the same role of assigning the word to different grammatical functions, but differ in what kinds of grammatical functions they specify. However, what the system network does is to offer further specification of what it means to have this 'conceptual' similarity and difference. Particularly in diagrammatic form, it shows that this relatedness is ultimately based on the relatedness or closeness of choices in the network. Linguistic entities are therefore paradigmatically related because they are the result of similar choices in the system of choices available. Thus the system network is not just a representation of a particular aspect of paradigmatic organisation in a language; through the notion of choice, it makes statements about the basis of the relationships that underpin the paradigm.

### **2.5.7 What aspects of language can system networks represent?**

In the above depiction of the system of conditional clause complexing, the assumption made is that the resulting system is a resource of choices with the potential to be used by any members of the speech community in their linguistic behaviour. The system does not describe the system which only one person uses, or the system that is employed in one text. Like the traditional grammar in general (on which this system network is based), it represents the resources available to a speech community for conditional clause complexing. If we look at this from a diachronic perspective, this is the system that has phylogenetically developed in the speech community.

However, there is nothing in principle to stop the system network formulation being applied to logogenetic or ontogenetic aspects of language. For instance, one can draw out the system of meanings made as a child develops in the environment of its caregivers; and this indeed has been done<sup>45</sup>. Also, one can draw out a system network for a given text– for example, one can examine the grammatical choices made, and the relationship of these choices to each other in a text. This can be referred to as an

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<sup>45</sup> See Halliday (1975) for his depiction of the systems that are developed by the child Nigel. See also Painter (1991) p.17, 29-30, 36-37 for system networks outlining the 'pragmatic' and 'mathetic' functions of childhood language, and Painter (1999) p.254-255, 257 for the development of systems of interpersonal choice.

instantial system for a text<sup>46</sup>. For a given set of related linguistic entities– say, conditional clauses– systems developed for the logogenetic, ontogenetic and phylogenetic dimensions of language do ultimately bear strong relationships to each other.

System networks can be in principle applied to all features of linguistic and semiotic behaviour, in whatever dimension of linguistic and semiotic time. In the particular case of a language, it can be applied to all features of a language that are thought to be paradigmatically related. This means it can be applied to any or all phenomena in each of the strata of phonology, lexicogrammar and semantics. Through realisational relationships, systems in different strata can be related to each other. Not only can it be applied to the strictly linguistic strata; it can in principle be applied to the level of context– both the context of situation (register) and context of culture (genre)– if one is prepared to think of context as also being paradigmatically organised, such as thinking in terms of registers related to each other or genres related to each other. Therefore, the system network, because of its potential applicability to phenomena of quite different semiotic orders and characters (say, phonology and semantics), assumes the status of a 'metatheory'.

## **2.6 Instantiation of systems**

The systems involved in a language are *used* by individuals and their speech community. The concept of the system network allows us to specify more precisely what 'use' means in this context. It generally means that the producer of a text makes choices among paradigmatically related options, thereby proceeding through the system network. The set of ordered choices that the producer of the text makes, once all possible pathways in the system have been exhausted, is an instance of use of the system. This process of making ordered choices in a system of a language is known

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<sup>46</sup> As referred to previously, see Mathiessen p.351-383 in Butt and Matthiessen (draft, 2000). The concept of 'instantiation' will be explained later in this discussion.

as instantiation. The status of any system in any stratum of a language is relatively abstract; the process of instantiation is the use or deployment of this abstract system and the resulting set of ordered choices. These ordered choices have the potential to then be realised. However, instantiation has an important role in the maintenance of a system, beyond just mere 'use'; it has an interdependent relationship with the system, as will be described below.

A system and its instantiation are reciprocally dependent. Firstly let us consider the first half of this statement– that the maintenance of a system depends on its being instantiated. Although a system is an abstract entity, the central concept that underpins its paradigmatic organisation is choice. In other words, what underpins a system is its use, and so the existence of a system depends on its instantiation. As a corollary, the whole concept of instantiation depends on there being a system of choices to carry out instantiation.

### **2.6.1 System development through instantiation over semiotic time**

Systems evolve and develop over time. This is achieved through repeated instantiation of the system over time. Instantiation achieves system change in various ways. In the most simple case, it changes the probabilities of selection of the various choice options of the system network, and therefore 'strengthens' or 'weakens' various choice pathways. Alternatively or in addition, instantiation can change the sequence of ordered choices, or omit or add choices, and therefore change the paradigmatic organisation of the system. Therefore, the more instantiations of a system over time, the greater the likelihood of change in that system. It is not the case that systems are fixed entities that are 'passively' read in the course of instantiation; the fact that the paradigmatic relationships inherent in systems are predicated on the process involved in instantiation ensures that this is not the case. This is particularly evident in the ontogenetic studies of language referred to previously.

Again, to characterise this change, it is useful to do so with reference to the three dimensions of semiotic time. So one can talk about the development of a system over the span of a text, over the span of individual development, and over the span of the linguistic development of a speech community. In this thesis, the focus will be on systems of choice that develop logogenetically– what is called the 'instantial system'. Therefore, for a given stratum, and for a given text (which is taken as an instantiation of the systems at the disposal of the individual(s) producing the text), a system of choices related paradigmatically to each other can be mapped out. Furthermore, to each choice one can assign a frequency for that text. This can then be used as the basis for comparison with instantial systems developed for other texts of similar or different registers or genres. It can also be compared to any systems that are developed ontogenetically or phylogenetically, to determine how the choices made for an individual text compare to the systems at the disposal of an individual and of a speech community respectively.

These instantial systems will be taken to be a function of the individual writer and of the speech community as a whole. It will always be a matter of debate as to the relative contributions of these; to determine this more precisely, there would need to be a comprehensive functional grammar based on a very large number of texts– something which to date has not yet been developed and is outside the scope of this thesis. However, as a starting hypothesis, we might suppose that the most proximal parts of the system– those closest to the entry condition for the system– are perhaps the most 'established' parts of the corresponding system for the speech community, as they often specify the broad configurational aspects of the unit of lexicogrammar (for instance, the clause or the clause complex) on which mutual understanding is based, and therefore represent ontogenetic and phylogenetic systems to a large degree. We may also suppose that the finer-grained choices in the system network and their associated probabilities of selection are more likely to represent individually developed systems of semiosis. Thus, as we, as observers of a system in operation, follow the instantial system network from left to right, the choices that are present, their relative position and their associated probabilities of selection reflect a

narrowing down from speech community practice, through to an individual's practice, and finally to what is used in an individual text.

### **2.6.2 Theoretical implications of instantiation**

The concept of instantiation, and its reciprocally dependent relationship with a system, makes for a particular perspective of an individual behaving linguistically in a speech community. It views that individual's linguistic behaviour as being both reciprocally dependent and independent with that of the speech community. The degree of dependence and independence is always a matter of debate; however, it is always possible to specify in more detail how this dependence and independence occurs. This has particular implications in the context of ancient world studies, where much of what we have left of long-extinct speech communities is the written texts that they have produced, and an understanding of what their cultural and semiotic activities were has to be reconstructed out of those texts.

As an individual is engaged in linguistic behaviour, that person instantiates linguistic systems. In the first instance, there is an instantiation of that individual's own systems, which causes various kind of change in those systems. However, the effects of instantiation spill out beyond the individual, for two reasons. Firstly, that individual's systems are in part due to being apprenticed previously in a community's linguistic systems; therefore, an individual's instantiation affects, in however small a way, the community's systems. Secondly, that individual, in the process of languaging, is communicating with other people in the speech community, and their systems are instantiated in the process of comprehension, as they use the sounds they hear or the marks they see on a writing surface to 'reverse engineer' the linguistic systems of which they are a realisation. The magnitude of the effect is a function of the number of people who directly engage with that individual's linguistic behaviour, and of the number of people with whom they subsequently come into contact, and of the kind of change itself. This is particularly the case for the texts under examination in this thesis, which were intended to be in the public domain.

What implications does this have for the way we are to interpret an ancient Greek text in terms of how 'reflective' it is of community linguistic practice? Through an understanding of the consequences of instantiation, we can say that any given text is part reflection and part creation. So we expect that, for instance, the text *On the sacred disease* is a text that to a degree reflects the semiosis of the Hippocratic doctors; but at the same time it will actively modify the means of semiosis of that community. To what extent it is reflective or creative, and what are the kinds of semiosis of which it is reflective or creative, are some of the challenging questions that can be posed of any ancient Greek text.

## 2.7 Metafunctions

One aspect of any language long recognised by functional linguistics is that it performs more than one role simultaneously as it is used by individuals in a speech community. This was noted by Halliday as he tried to build up system networks at the stratum of lexicogrammar<sup>47</sup>. He found that certain lexicogrammatical functions seemed to naturally group together into relatively independent systems; furthermore, he proposed that each of these broad groupings was underpinned by a 'binding principle' which appeared to describe some general function of a language. It was proposed that these 'metafunctions' were not specific to English, but were potentially found in the broad groupings of functions in any language.

Three metafunctions are thought to be in operation in any language. Firstly, a language can fulfil the role of construing or representing the experienced world, whether this be events external or internal to a person, including a person's mental activity. This is called the 'ideational' metafunction of language. Secondly, a language fulfils the role of enacting linguistic social exchange between people, whether this be making statements, requesting information, offering a service, and so

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<sup>47</sup> See Halliday (1994) p.30-36 for the notion of three relatively independent 'lines of meaning' in clauses, and in a language in general.



on. This is the 'interpersonal' metafunction of a language. Thirdly, because these metafunctions need to be combined and deployed simultaneously, a language requires a means of organising these metafunctions into information in a text that is patterned in a certain way to allow that information to be further developed by those engaging with the production or reception of that text. This is called the 'textual' metafunction.

	καὶ	τὸν μὲν Περικλέα	ἐν	αἰτία	εἶχον	
<i>Ideational</i>		Goal	Circumstance: location: space	Process: material: dispositive		
<i>Interpersonal</i>		Complement	Adjunct	Predicate	Finite	(Subject)
<i>Textual</i>	Textual Theme	Topical Theme	Textual Theme	Rheme		
Clause: Declarative + Material: dispositive						

**Figure 2-10 Three metafunctions operating simultaneously in a clause in ancient Greek**

Because of the concerns of this thesis, most emphasis will be given to the ideational metafunction. However, this is not to deny the importance of the other two metafunctions. We are concerned with how complex phenomena are represented through Greek texts. Therefore, performing a linguistic analysis in terms of the ideational metafunction will provide the most direct insights in this regard, given the broad area questions being asked of the linguistic analysis. However, of equal importance– but of less relevance to the thesis– are questions to do with what kind of interactional pattern is found in the texts and what form of social communication the text comprises, and what kinds of things are being negotiated or otherwise; these

issues are best explored with an analysis in terms of the interpersonal metafunction. Likewise, a study of how information is developed in the texts, and how the texts are 'put together'– best studied through the textual metafunction– is also important. It does have some bearing on how a particular 'picture' of an experienced phenomenon is built up. This does have significant implications for phenomena described in this thesis– particularly anaphora and nominalisation. However, the prime concern in this thesis is on the resultant 'pictures' as they are construed by the text in its totality, rather than on the step-by-step progressive development of those pictures, or the communicative form in which they come. Therefore this thesis will emphasise the ideational component of the language, and place rather less emphasis on its interpersonal and textual aspects. It is well acknowledged that without a full study of all three metafunctional aspects of a text, the linguistic analysis of a text is not complete. However, this thesis only aims to cover those aspects most directly relevant to the thesis questions and regard the findings as a starting point for a more exhaustive text analysis to fully cover issues such as how the 'ideational picture' is built up, and how that picture is communicated to people interacting with the text.

### **2.7.1 Ideational: experiential and logical**

The ideational metafunction, as described before, is a theoretical formulation in functional linguistics to account for the general function that a language has in construing or representing experience. In functional linguistic theory, this comprises two sub-functions– the experiential and the logical<sup>48</sup>. The experiential sub-function is most directly concerned with representing and construing experience. Approaching a text from a purely experiential viewpoint, we look at the individual elements of experience in a text that construe a complex phenomenon, and examine the nature and character of these elements; subsequently we might look at the overall experiential picture that a text provides and see it as being the product of the individual experiential elements.

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<sup>48</sup> See Halliday (1994) p.179-180

However, there is more to the construal of experience in a text than just the experiential elements. Furthermore, when considering how the total experience construed by a text comes about, it is not simply a matter of experiential composition; it is not the simple case that experiential element a plus b plus c is equivalent to the total text-construed experience x. It becomes apparent that certain experiential elements 'go together' with some rather than with others in the text. Additionally, when considering these relationships, they may or may not be 'equal'; one element may stand in a 'dominant' or 'subsidiary' relationship with another. Thus, certain elements may be considered to be 'dependent' on others, and stand in a particular relationship to the 'whole picture' as construed by the entire text. The logical subfunction is that aspect of ideation that construes these interdependent relationships, either in the systems of the text, the individual or the speech community. Particularly in the case of the last of these, the logical subfunction describes the 'natural logic' present in the systems of the language– 'how things go together with each other'. Therefore, ideation in a language is thought to be the typical ways in which experience is construed through a relationally structured configuration of individual experiential elements. In effect, the two subfunctions take complementary perspectives of configuration and elemental structure on the general function of language in construing experience.

### **2.7.2 Language specificity**

Having put forward the idea of metafunctions, we should ask what strata of a language are amenable to metafunctional separation. Halliday derived metafunctions specifically from his work on the systems involved in the lexicogrammar of English; one therefore cannot assume that metafunctions automatically apply to all strata of a language, or indeed to all natural languages.

However, the first thing we shall assume in this thesis is that the concept of metafunctions applies to at least some strata of all natural languages. Therefore metafunctions are thought to apply to ancient Greek, and at least to its lexicogrammar. Let us look at a sample of text in Greek to bear this proposition out.

Thucydides 2.60

kai prosdekhomenôî moi || ta tês orgês humôn es me gegenêtai || (aisthanomai gar tas aitias) || kai ekklêsian toutou heneka xunêgon, || hopôs hupomnêsô || kai mempsômai || ei ti mê orthôs ê emoi khalepainete || ê tais xumphorais eikete. || egô gar hêgoumai || polin pleiô xumpasan orthoumenên || ôphelein tous idiôtas || ê kath' hekaston tôn politôn eupragousan, || hathrōan de sphallomenên.

As I understand it, || your anger has become directed to me || (for I realise the causes of it),|| and for this reason I called this assembly,|| so I may remind you || and investigate critically || whether you are angry with me– which is not right– || or you attribute it to our recent misfortunes. || I believe || rather that the city has assisted individuals || by being successful overall,|| than to have collectively failed || by benefiting each citizen one by one.

If we look at the wording of this text clause by clause (meaning, its lexicogrammar) we can see that it is doing three things simultaneously. We can be confident that each is representing some state of affairs; this state of affairs may be relatively concrete, or it may deal entirely with a relatively abstract semiotic order which may or may not be thought to underpin concrete events. The events or happenings construed by the grammar in each clause of the text 'hang together' in certain ways; we see that some clauses are 'dependent' on other, clauses have greater affinity for some clauses rather than others, and in each clause itself the processes are in a certain relationship to participants.

xβ	kai	prosdekhomenôî	moi
Enhancing: temporal: simultaneous: extent		Process: mental: cognitive	Senser
α	ta tês orgês humôn	es me	gegenêtai
	Attribute	Carrier	Process:

			relational: circumstantial + ascriptive
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As I understand it, || your anger has become directed to me

This would suggest that one of the functions of Greek is for ideation, and that these resources can be similarly divided into experiential and logical subfunctions.

Secondly, we recognise that the text can be thought to take the form of a certain kind of social communication between the producer and the recipient of the text. Clause by clause, certain elements are being negotiated while others are 'taken for granted' or backgrounded, and each clause represents a unit of social exchange, such as providing information (the declarative). There are also other elements of the clause that express the speaker's attitude to what they are saying, whether this be an expression of the speaker's certainty or some kind of evaluative comment on the situation they are describing<sup>49</sup>:

ei	ti	mê orthôs	ê	emoi	khalepainete	
conj	Mood Adjunct	Comment Adjunct	conj	Complement	Predicator	Finite / Subject
Residue						Mood
Declarative						

...whether you are angry with me in any way– which is not right– ||

Therefore, Greek language systems do have resources that enact the kind of speech adopted by the speaker with respect to the audience.

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<sup>49</sup> The terms used here for interpersonal analysis come from Butt, Fahey et al. (2000) p.122-123.

Furthermore, each clause can be thought of as comprising information with a certain structure; certain parts of the information structure as used as a 'departure point' for the individual clause, while others are used as the basis for further information development in subsequent portions of the text<sup>50</sup>.

ei	ti	mê orthôs	ê	emoi	khalepainete
Textual Theme	Interpersonal Theme	Topical Theme	Textual Theme	Rheme	
Theme				Rheme	

The result is that the 'flow of ideas' in the text is managed and structured in some way. Therefore, Greek is most likely to have resources for clause-by-clause textual organisation.

The above argument simply asserts that all three metafunctions are present in the above Greek text, and most probably likely to be found in all Greek texts. However, a separate question is whether they are theoretically separable in a functional theory of the grammar of Greek. To demonstrate this comprehensively is beyond the scope of this thesis; this would involve a full elucidation of the functional grammar of Greek, just as it required a comprehensive elucidation of the functional organisation of English lexicogrammar to posit the existence of the metafunctions. However, to demonstrate this point it will suffice to show that a single clause can be analysed by three different sets of grammatical analysis, each of which corresponds to each of the metafunctions. For this purpose, the analytical labels used in the functional analysis of English lexicogrammar will be used<sup>51</sup>. Because these terms have not been developed specifically for Greek, these analyses can only be preliminary. In this discussion they are simply used to show metafunctional separation.

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<sup>50</sup> For this use of textual metafunction analysis, see *ibid.*, p.135-139.

<sup>51</sup> These are essentially the unmodified terms of functional grammar found in Halliday (1994) and Matthiessen (1995).

Thucydides 1.52

hai te Attikai triakonta nêes kai |[tôn Kerkuraiôn hosai plôïmoi êsan]| epepleusan epi  
[ton [en tois Subotois] limena]

...the thirty Athenian ships and |[those of the Corcyreans that were seaworthy]| sailed towards [ the  
harbour [in Sybota] ]...

(clause analysis 1: ideational)

hai te Attikai triakonta nêes kai  [tôn Kerkuraiôn hosai plôïmoi êsan]	epepleusan	epe [ton [en tois Subotois] limena]
Actor / Agent	Process: material: dispositive + middle	Circumstance: location

(clause analysis 2: interpersonal)

hai te Attikai triakonta nêes kai  [tôn Kerkuraiôn hosai plôïmoi êsan]	epepleusan	epe [ton [en tois Subotois] limena]
Subject	Finite + Complement <sup>52</sup>	Adjunct

(clause analysis 3: textual)

hai te Attikai triakonta nêes kai  [tôn Kerkuraiôn hosai plôïmoi êsan]	epepleusan epe [ton [en tois Subotois] limena]
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<sup>52</sup> Typically in inflectional languages such as Greek, Finite and Predicator are combined in the one word. Instead, the morphological constituents of the word carry each of these interpersonal functions– the Finite being mapped onto the verbal augments and inflections, the Predicator onto the verb stem. For the analogous situation in French, see Caffarel (1995) p.8-22.

Theme / Given <sup>53</sup>	Rheme / New
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This demonstrates that the clause above can be analysed grammatically in three relatively independent ways in terms of functional linguistic theory. It is not denied that in the individual clause all three metafunctions are operating simultaneously; what is being asserted here is that systemic-functional theory can separate out the three metafunctions and analyse each independently of the other, depending on the questions that the research task poses. Therefore we can analyse the ideational aspect of the texts under consideration in this thesis independently of the other metafunctions without denying the importance of the other metafunctions to the text as a whole.

### 2.7.3 Stratal specificity

The applicability of the metafunctions to the lexicogrammar of Greek has been demonstrated in a preliminary way. However, is it also possible to say that other, or all, strata are amenable to a metafunctional characterisation?

It bears emphasising that the concept of metafunctions developed with the systemic characterisation of lexicogrammar. They are broad groupings of related functions. Underpinning this notion of a function is that 'a given linguistic entity x must have a function y'. Therefore each function is one part of a sign of some kind, where, according to the Saussurean concept of the sign, the process of meaning occurs in the reciprocal delimitation of entity and function. Therefore a metafunction is a grouping of signs related to each other by patterns of choice among functions. The Saussurean concept of the sign is most easily demonstrated in the lexicogrammar, because

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<sup>53</sup> This is taken as Theme because it acts as the point of departure of the clause from which the rest of the clause is developed. Secondly, the notion of the ships is thought to be 'Given' information for two reasons– the definite article *hai* implies anaphoric reference, and indeed the preceding text describes the military actions of the Athenian fleet and how Corcyrean ships came to be damaged in the previous day's fighting.



lexicogrammar, as the resource for wording in a language, can be most easily characterised simultaneously in terms of form linked to function.

If we are to demonstrate the presence of metafunctions in another stratum of a language, then we have to show that that stratum can be characterised in terms of signs, and that the 'function component' of any sign can be related to the function components of other signs in that stratum in a paradigmatic way. If this can be achieved, then one can determine whether these functions fall into broad metafunctional groupings.

Part of the means by which we can determine the presence of signs in the lexicogrammar is due to the fact that it realises, and is realised by, other linguistic phenomena. This allows lexicogrammar to be seen 'from above'— that is, in terms of the organisation of what it realises— and 'from below'— in terms of the organisation of that by which it is realised<sup>54</sup>. This is the reason why a 'from below' characterisation results in lexicogrammar being seen in terms of constituent structure analogous to phonological structure, and a 'from above' view results in seeing it in terms of function, analogous to how semantics might be characterised. Therefore in looking for metafunctions in the other strata, we have to determine the presence of signs defined with respect to what they realise and what they are realised by. Then we should examine whether the *signifié* component of these signs can be paradigmatically related, and, if so, whether these paradigms fall into broad groupings.

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<sup>54</sup> The concept of viewing linguistic phenomena 'from below' and 'from above' comes from Halliday (1994) p.24-30.

## **CHAPTER 3**

### **Linguistic Prolegomena II: Towards a systemic-functional grammar of ancient Greek**

The aim of this chapter is to consider what might involved in applying systemic-functional principles to the description of the lexicogrammar of ancient Greek. This has to some extent already been done in the previous chapter. However, there do exist 'traditional' grammars of ancient Greek, the categories and description of which are used in modern linguistic study of Greek texts. Therefore, there needs to a be a justification of why a new kind of lexicogrammatical description of Greek needs to be developed, and what aspects of the traditional grammar are worth preserving in the 'new' grammar.

Most current grammars of Greek are formulated along traditional lines, and are primarily used as reference grammars for students learning the language or others engaged in ancient world studies but whose primary focus is on literary or cultural study<sup>55</sup>. In addition, there have also been works in the comparative linguistic tradition, where the structural and functional lexicogrammar of two or more cognate IE languages is compared (typically Greek and Latin, with additional evidence from other IE languages); this is done with a view to reconstructing as far as is possible the ancestor proto-Indo-European language.

No systemic-functional grammar of ancient Greek exists to date. However, there has recently been an increasing interest in functional approaches to ancient Greek,

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<sup>55</sup> An example of this is Morwood (2001).

particularly in Europe<sup>56</sup>, and there have been recent publications of grammars of Greek in Spanish and Dutch that are oriented to a 'functional' perspective<sup>57</sup>. However, even the studies of Greek from a 'functional' perspective do have some limitations which can be related to those of the traditional grammar. For this reason, despite the utility of these studies, it is necessary to reconsider what it means to develop a functionally oriented model for a language such as ancient Greek.

### **3.1 A functional grammar for a 'dead' language**

A modern systemic-functional grammar was first developed for English, notably by Halliday<sup>58</sup> and then expanded with the use of the system network by Matthiessen<sup>59</sup>. Halliday's original grammar was first published in 1985, a second edition of which was published in 1994; a third edition of the grammar by Halliday and Matthiessen is flagged for release in 2004. Halliday's systemic-functional grammar of English has been the model on which systemic-functional grammars for other modern languages have been developed; there are numerous precedents for the application of the functional approach to languages other than English, to languages both inside and outside of the Indo-European (IE) group; a collection of such studies in functional language typology, edited by Caffarel, is due for publication in 2004 or 2005. The one factor that might distinguish a functional grammar of ancient Greek from these other functional grammars is the fact that ancient Greek is a 'dead' language.

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<sup>56</sup> An example of this is the collection of linguistic studies of ancient Greek in Bakker (1997). The authors in this collection are responsible for a number of 'functional' studies of particular grammatical features of ancient Greek texts, particularly relating them to 'discourse functions'; however, none of them have used system networks for their grammatical descriptions, or set out a systematic grammar of the language in functional terms. More specifically to do with the functional roles of particular elements of structural lexicogrammar– specifically verbs, prepositions and case marking– see Luraghi (1995) and Luraghi (2003).

<sup>57</sup> See Rijksbaron, Slings et al. (2000) and Martínez Vázquez, Ruiz Yamuza et al. (1999). These works are not available in English as yet, and have not been cited in this thesis.

<sup>58</sup> Halliday (1994).

<sup>59</sup> Matthiessen (1995)

By the term 'dead', one means that a language is no longer used in social interaction in a widespread way. It is true that ancient Greek does play a role in the Greek Orthodox Church<sup>60</sup>, analogous to the ceremonial role that Latin plays in the Roman Catholic Church. But this is the only social environment in which this language is used, and, within this environment, the context of situation (that of prayer and other ceremonial functions) is severely restricted. It is no longer a language used in a multiplicity of social environments, contexts of situation, or cultural practices.

The consequence of this is that there are no 'native speakers' or 'native speaker intuitions' to draw upon, when formulating or checking the adequacy of the categories of a putative grammar. Before discussing the consequences of this, a more explicit consideration of what is meant by 'intuitions' should be made.

### **3.1.1 'Intuitions' as part of learning a language**

During one's experience of language over an extended period of time– in both using and comprehending it– certain regular patterns of the language's systems are detected, through picking up similarities and differences in the patterns of individual text instances. These patterns are detected within a stratum, or between strata, and a memory of these patterns contributes significantly to what might be termed 'language learning' or 'language development'.

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<sup>60</sup> Strictly speaking, this is what is known as Koine Greek, the variety of ancient Greek that had its roots in classical Athenian Greek and became initially established as a *lingua franca* in the Macedonian empire under Alexander The Great and the Hellenistic period. In turn, through regional and socioeconomic class variation in this period and during subsequent Roman occupation, it became the basis for the language of the Greek Septuagint and 'New Testament Greek'. See Horrocks (1997) p.32-70, 92-95.

A simple example in English will be used here to illustrate the point<sup>61</sup>. One might find that with certain contexts of situation, there are certain kinds of meanings available in the semantic systems of English. Such meanings tend to co-occur with relatively restricted kinds of wording in the lexicogrammar. Over time, patterns are detected within strata. For example, there is a common pattern that binds certain contexts of situation together– for example, a 'need for something to be done by another person'. In the stratum of semantics, there is a common pattern among the meanings associated with these contexts– 'requests for goods and services'– which is a restricted set of the semantic choices available for selection in English. Again, associated with these meanings is a restricted set of wordings available in the lexicogrammar of English, and this set of wordings share a common pattern which may be labelled with, say, the term 'imperative'. Thus there are patterns detected within each stratum as language learning or development proceeds; the labels used within particular strata, such as 'requests for goods and services' and 'imperative', are meant to signify that there is a pattern among the phenomena that are given the same label.

Not only is there detection of patterns within strata, but between strata. That is, particular patterns in context co-occur in a regular way with particular semantic patterns and lexicogrammatical patterns. For example, the context of situation 'need for someone else to do something' regularly co-occurs with 'request for goods and services' at the level of semantics, and with 'imperative' at the level of lexicogrammar. Putting this pattern of realisation in a non-technical way, this means that, in learning English, one learns that in the context of when one needs someone to perform an action, it is much more likely– but not absolutely likely– that one will use meanings that construe a request for an action to be performed. In turn, when such meanings need to be made, it is much more likely that one will use an imperative in their choice of lexicogrammar. Hence certain probabilities are established in both the selection of given choices in a linguistic stratum in a certain context, and in their realisation.

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<sup>61</sup> This example makes use of the characterisation of speech functions in Halliday (1994) p.68-71 and Butt, Fahey et al. (2000) p.86-88.

As a language is learned through using and comprehending it in spoken and perhaps written varieties, more and more of these patterns accumulate, with the result that eventually the systems of a language within each stratum– the relationships between phenomena at the same stratum– are developed, as well as realisational relationships between strata. This allows the speaker or writer of a language to make predictions as to what kinds of phenomena at each stratum might occur, and, given choices in systems at one stratum, what might be expected in other strata. It is this predictive ability that allows one to have a sense of how the language 'works' in using the systems of a language and deploying the strata together in the majority of instances. By the same token, it also allows one to evaluate how unusual or 'marked' a particular instance of text is. This sense of the nature of the systems of the language, and how they interact within and between strata, is what may constitute one's 'intuitions' about a language. It is this that is intended by the term 'intuitions' here.

### **3.1.2 Intuitions for a 'dead' language**

Again, for a dead language, one cannot rely on one's 'intuitions' about it to get a proper grasp of the systems in play. This may be no bad thing on the face of it– the current trend among functional linguistics is to base a grammar on a corpus of texts (the only option available to an ancient language linguist) and build the grammatical description out of it. However, in reality, it is a combination of both textual evidence and speaker / writer intuitions that go to formulating most grammars. This becomes most evident in the various 'tests' that are used to identify the grammatical functional of a particular clausal element, such as the use of the 'mood tag test' for the identification of the mood block in the interpersonal grammar of an English clause<sup>62</sup>. As a means of identifying Subject and Finite, one has to use one's intuitions about the appropriate form of mood tag to add to the clause in question. In other words, intuitions about the linguistic systems of English lexicogrammar are added to the text

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<sup>62</sup> See Halliday (1994) p.71-75 and Butt, Fahey et al. (2000) p.91-92.

under analysis in order to develop the lexicogrammatical description<sup>63</sup>. The textual evidence for a grammatical feature usually has to match one's intuitions as to how entrenched that feature is in a language's systems. Conversely, intuitions about the grammar in a language– specifically how marked or unmarked particular grammatical constructions are– have to be backed up with reference to how frequently those constructions are chosen in texts.

Therefore, for a 'dead' language, one is completely reliant on a corpus of written text(s) for developing the grammar. It is true that, with experience in reading ancient Greek texts, one develops 'intuitions' about what kinds of grammatical choices take place in the use of the language. But these could be described as 'scholarly intuitions' as distinct from 'native speaker intuitions'; the former is based solely on the reading of the restricted set of written literary texts available to the modern reader, whereas the latter is based on the reception, and production, of a very wide variety of spoken and written texts, actively used as part of social life. In essence, the 'scholarly intuitions' derive from nothing larger than, at best, the entire corpus of texts available in ancient Greek, and therefore bring nothing in addition to the evidence in the corpus of literature in ancient Greek, when it comes to developing a grammar based on these very texts. Thus there are problems in using such 'intuitions' for a grammar of ancient Greek, leaving aside the possible distortions that such 'intuitions' might introduce into the formulation of the grammar, based as they often are on a scholar's individual experience of the language as presented through the extant texts.

So far, the difference between 'scholarly intuitions' and 'native speaker intuitions' has been described in terms of 'range'– they are based on different 'amounts' and 'kinds' of language. But there is another, qualitative, difference, and it is to do with the different contexts of situation in which they are developed. A native speaker's intuitions about a language develop because that speaker wants to be interacting with

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<sup>63</sup> However, direct textual evidence can be found to back up these intuitions– such as the rhyme cited by Halliday (1994) p.71 or the 'Mars Bar argument' in Butt, Fahey et al. (2000) p. 103 to justify the mood tag test.

the members of a community which speak that language, and to construe one's own and others' experience in terms of these interactional patterns.

In contrast, scholars studying an ancient language develop their own intuitions for quite different reasons. They want to be inculcated in the ways of the language largely for the purposes of 'reconstruction'— they want to know 'what the language *was* like', and how it *was* used between members of the community that spoke it; this in turn contributes to the larger project of determining the nature of ancient society. They do not develop these intuitions in order to construe immediate experiences with others in the present time; they gain ideas about the systems of the language, but do not expect to use them for their own communicative events. The difference in the context of situation in which these intuitions are developed is likely to push those intuitions in a significantly different direction. There is rather more emphasis on understanding how the language systems were used to produce the extant texts. There is rather less on elucidating the potential which those systems of language opened up to construct novel language instances, because the scholar will not be using these language systems in their own social, communicative environments. In other words, the systems of an ancient language are not viewed as a resource for creating texts in the present time. As a result, there is less emphasis on how a language like ancient Greek could potentially be used, because the focus of effort is expended in working out how it was in fact deployed.

Thus any grammar of ancient Greek which is at least in part dependent on 'scholarly intuitions' is quite different in scope and orientation to that of a living language. The 'source' from which the intuitions derive is relatively restricted, in both the volume and type of corpus material. The intuitions are motivated not by a need to participate in a particular community's social and communicative activities, but to reconstruct a set of activities that are no longer in existence and for which we do not have any direct experience. This is a substantially different task to the linguistic characterisation of modern languages.



### **3.1.3 How much ancient Greek are we going to know?**

It has already been noted that we are in the situation of developing a grammar of ancient Greek from a very restricted set of written texts, and for different purposes. This throws up a wider question– how representative is the grammar going to be of what the lexicogrammatical systems were like when the language was 'live'?

Any notion that we are going to have a comprehensive, faithful construal of ancient Greek's lexicogrammar as it was when it was 'live' should be abandoned. This should be evident when considering the kinds of extant texts and the contexts in which they were produced. What is clear is that the vast majority of the texts were produced with a very public audience in mind; tragedy and comedy were intended to be performed, oratory, poetry and history were meant to be read or listened to. Furthermore, the expectation was that these texts, because of they were intended for 'public consumption', should have some kind of aesthetic value, as they were viewed as being part of literary genres. This applies even to the dialogic exchanges found in comedy (often cited as being the closest thing that we have to what spoken Greek was like at the time<sup>64</sup>), and to Plato's dialogues. In all of these cases, these texts had a literary function. Therefore, the kinds of lexicogrammatical systems involved, and the choices within them to produce these texts, are influenced by the fact that these texts are written, they are written for an extended audience in some kind of 'performance', and are intended, apart from other considerations of field, to fulfil aesthetic expectations.

In short, the texts realise a restricted set of contexts of situation and culture. Because of this, the texts are very selective instantiations of the systems in ancient Greek, and, furthermore, within these systems, there are likely to be marked or incongruent 'choices' in the production of these texts. Therefore, the grammar that one might produce is not of the ancient Greek language, but of the ancient Greek texts that are

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<sup>64</sup> For this view, see Denniston (1952) p.57.

left to the modern reader, and for a 'dead' language, this is an important, crucial distinction. We cannot expect such a grammar to describe all of the lexicogrammatical resources of the ancient Greek language as it was when it was in widespread use as part of community life.

However, from the perspective of a linguist studying the systems of ancient Greek, advantages can be found in what appear to be quite restrictive circumstances surrounding a dead language. The primary advantage is that the corpus of ancient Greek language is relatively small compared to a current language such as English, and therefore finding evidence for a linguistic feature becomes much easier. Furthermore, such a corpus is quite static (in comparison to one for a living language where new texts need to be constantly added for it to be a 'balanced' instantiation of language systems); it therefore provides a stable 'object of study' for analysis (however misleading it is to call language an object). Focusing on selected parts of the corpus opens up the possibility of obtaining quite tight 'synchronic' descriptions of the language, either with reference to a time period (such as the fourth century BC), or to literature of a particular genre (such as the Hippocratic corpus), or even a certain writing period for a particular author (such as the early dialogues of Plato<sup>65</sup>). Lastly, the absence of the spoken variety and of the new generation of texts reinforces a reliance on the corpus, and an emphasis on needing to provide 'hard evidence' for any hypotheses about the systems of ancient Greek. In other words, since ancient Greek is available to the modern reader in a 'restricted' form, there exists the opportunity to produce 'restricted grammars' which can be fitted to any clearly defined purpose of linguistic analysis.

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<sup>65</sup> It should be noted that dating texts relative to each other relies in turn on picking out particular linguistic features which are thought to be reflective of overall text style. For a study which dates Plato's works in this way, see Brandwood (1992) p.90-120 which attempts to produce a chronology of the dialogues based on the frequency of occurrence of particular lexical items that signal agreement with the propositions of other speakers, the frequency of particular 'clausal' rhythms (probably equivalent to the notion of 'foot' in suprasegmental phonology– see Halliday (1994) p.7-9) and the use of 'hiatus'.

## **3.2 The advantages of a functional grammar over a traditional grammar**

It has already been explained why a functional approach to the grammar would be most suitable for the aims of the project being undertaken here. But does a traditional grammar not provide such a framework to enable functional interpretations about the grammar of ancient Greek? The answer appears to be both yes and no.

There are numerous traditional grammars of the ancient Greek, ranging from the smaller-scale versions<sup>66</sup> to the monumental and comprehensive<sup>67</sup>. Many grammars, given the longstanding preoccupation of ancient language linguistics with historical change and commonalities with other IE languages, are 'comparative grammars' where the grammars of two or more IE languages are compared with a view to elucidating cognate grammar and lexis in the IE family<sup>68</sup>. Given this volume of work to produce ancient Greek grammars, one has to justify adding a new kind of grammar to this collection, and to explain what benefits or advantages such a grammar would bring.

### **3.2.1 General criticisms of traditional grammars**

For modern languages such as English, the drawbacks of traditional, and modern, grammars have received critical attention. The areas of criticism appear to fall into two broad areas: criticism of underlying concepts of classification, and criticism of the organisation of grammatical material. According to Halliday, the problems of grammatical concepts that permeate traditional grammars, and cause problems for modern ones, are to do with paradigmatic organisation, category labelling, and the

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<sup>66</sup> For example, see Goodwin (1963) and Smyth and Messing (1974). The latter one is the principal traditional grammar used in this thesis.

<sup>67</sup> The best known of these is Schwyzler, Brugmann et al. (1968) (in German).

<sup>68</sup> For an example of this, see Buck (1933).

exemplification of grammatical features<sup>69</sup>. While paradigms in a grammar give an idea of the systems present in a language, they do not in themselves reflect how those systems are instantiated in text. Labels assigned to particular elements of these paradigms (such as 'nominative' and 'accusative' in declensions of nouns) themselves become reified when in fact they are just conveniences for marking particular kinds of 'proportional' relations between choices within a given paradigm, and detract from its relational and systemic character; the result of this is that the labels do not say anything about the function or the meaning of the forms, except in a very rudimentary sense<sup>70</sup>. Traditional grammars, by defining the criteria for grammatical categories in a restrictive way, tend to 'oversimplify' a particular language's lexicogrammar, with the result that the grammar describes only a certain proportion of its lexicogrammatical phenomena, while ascribing what does not fit neatly into the grammar's categories to a wastebasket of 'anomalous' or 'borderline' cases.

The main thrust of Jespersen's criticism of traditional grammars is to do with the organisation of material– more specifically, that the grammatical phenomena described in them are grouped together in an inconsistent and misleading way. This arises because there is a priority given to categorising by form, and secondarily with respect to function or meaning<sup>71</sup>. A particular case in point is the subclassification of kinds of word formation, sometimes by the kind of affix or infix, at other times by the word compound's 'signification'; hence the classification scheme for these compounds in general becomes arbitrary<sup>72</sup>. The consequence of this tendency, more generally across the traditional grammar, is that some phenomena are grouped together inappropriately because they share similar form, and the potential for revealing functional relationships between other phenomena is lost, because of the differences in form.

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<sup>69</sup> See Halliday (1994) p.xxxii-xxxiii in his discussion of formulating and applying grammars.

<sup>70</sup> Jespersen (1958) p.37-38.

<sup>71</sup> Jespersen (1958) p.37-39 and p.58.

<sup>72</sup> Jespersen (1958) p.38.

Jespersen's criticism foreshadows concepts developed by Whorf not long afterwards out of his experience with the categories of Amerindian languages and the need to use consistent, reliable grammatical concepts which could be applied to the IE and non-IE languages alike. He introduced the notions of phenotypic and cryptotypic categories– the latter of which incorporated the idea that not all grammatical categories need be distinguished from each other by differences in form, and that indeed differences of form should not be the basis of distinguishing grammatical categories<sup>73</sup>. This, of course, was underpinned by the larger idea that grammatical categories are semantically motivated– a notion that still has a central place in functional descriptions of language<sup>74</sup>. In effect, what Jespersen's criticism implies, informed by Whorfian principles, is that the traditional grammars, because they do not categorise primarily according to function or meaning, do not provide unified accounts of the systems of lexicogrammar in a language. Therefore, function or meaning becomes the organising principle of lexicogrammatical systems from this viewpoint.

Whorf's endeavours to build a consistent analytical framework for a grammar have special relevance to developing grammars for languages other than those typically selected for grammatical analysis, such as Greek and Latin in previous times, and English in the modern era. They also provide another point of criticism of grammars formulated along traditional lines. The categories that are developed tend to be specific for the language under discussion, and may not be appropriate distinctions for other languages. The consequence of this is that these categories are treated as if they are universally applicable to other languages, whereas in fact they may not be, leading to a less than ideal characterisation of the lexicogrammar of other languages. Jespersen suspected that this was the case<sup>75</sup>, and Whorf was acutely aware of this problem in his own work on languages such as Hopi<sup>76</sup>.

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<sup>73</sup> See Whorf (1956), p.88-93 in his discussion of overt and covert categories.

<sup>74</sup> The centrality of the distinction of phenotypes and cryptotypes in functional linguistics is underlined in the exposition of the theoretical underpinnings of the 'meaning base' in Halliday and Matthiessen (1999) p.26-29.

<sup>75</sup> Jespersen (1958) p.58-59.

<sup>76</sup> Whorf (1956) p.112.

Not only does this lead to problems in describing a single language, but it also makes comparison between different languages problematic. This issue is particularly salient if one wants to compare similar linguistic activities in ancient Greek and English. This task requires the use of consistent, reliable and explicitly formulated categories that can be applied successfully to differing languages. It may be argued that ancient Greek and English, being IE languages, are going to have broadly similar kinds of systems of lexicogrammar, and therefore the categories employed by a traditional grammar of Greek are going to be largely applicable to English. Of course, it is at least never safe to assume so until one gets down to the task of actually using the categories in an analysis. In any case, there are enough features of English lexicogrammar– the relative lack of inflectional paradigms for word classes, the complementary tendency to mark the case of nouns or nominal groups and the voice of verbs and verbal groups through the use of more than one lexical item rather than through inflection, for example– which have something in common with isolating languages such as Mandarin rather than many languages of the IE family<sup>77</sup>. This would call into question the methodology of using the traditional grammar of a single IE language even among other members of the IE family.

However, in this thesis, similar functional categories to English will be used in the analysis of the ancient Greek texts, because these categories, in view of the common language family, are likely to 'fit' in many cases. However, such categories can only be provisional for Greek, and only used as a starting point for a fuller exposition of a functional grammar of ancient Greek at a later time.

The criticisms of traditional grammars in general have been outlined above. But the discussion should be further explicated with reference to specific traditional grammars, and the kinds of categories imposed by them. This allows one to align an

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<sup>77</sup> Whorf (1956) p.87 mentions this very briefly; Jespersen (1958) p.59 also discusses the issue of the applicability of categories within the IE family in slightly more detail with respect to German and Danish.

evaluation of traditional formulations of grammar with the modern stratal view of language. To this end, reference will be made to Herbert W. Smyth's grammar<sup>78</sup>, formulated in the early part of the 20th century, as a representative example of a traditional grammar, and the kinds of discussion of grammatical phenomena that are generated from the traditional grammatical categories. Smyth's grammar is selected here, as it aims to be a primarily synchronic 'descriptive' grammar rather than a comparative one<sup>79</sup>, and thus makes for more direct comparison with grammars that employ an SFL framework.

### **3.2.2 Smyth's grammar: an example of a traditional grammar of ancient Greek**

A brief survey of the contents of this grammar allows some observations to be made on the basic emphases of a traditional grammar such as this<sup>80</sup>. There is a section that concerns itself with the sounds of the language and systematic variations of sound in given environments, a section on inflection and regular ways of compounding word stems, a section on syntax of individual clauses ('simple sentences') and on particular clause types (such as causal and conditional clauses) that take part in clause complexes ('complex sentences'), and a section that deals with particular kinds of clauses that have differing interpersonal choices, such as interrogatives and 'negative sentences'<sup>81</sup>.

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<sup>78</sup> Smyth and Messing (1974)

<sup>79</sup> See the editor's preface in Smyth and Messing (1974), p.iii-v on this point

<sup>80</sup> See Smyth and Messing (1974) p.ix-xvii.

<sup>81</sup> This is a slight variation on the tripartite, more general division of traditional grammars into accidence/morphology, word formation and syntax– these broad divisions are presented by Jespersen in Jespersen (1958) p.37 as being representative of traditional grammars in general.

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Figure 3-10 Table of contents from Smyth and Messing (1974) (10)

One can see from this that traditional grammars attempt to treat a wide variety of phenomena over many linguistic strata, and, from a functional viewpoint, across the metafunctions. It is this wide-ranging nature of the grammar– literally 'comprehensive'– that is likely to give rise to confusion over the strata at which the various phenomena are supposed to be situated, and whether the phenomena being described have value in construing experience or in enacting linguistic social exchange<sup>82</sup>. This is not to deny the sheer volume of valuable information in grammars such as this. Rather, it is to say that the grammar's particular organisational principles do not allow for analysis to be confined to single strata or metafunctions. This is problematic when specific analytical goals need to be pursued, where findings need to be located at the particular stratum or metafunction under consideration so that a text is characterised in a systematic way.

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<sup>82</sup> Note that there does not appear to be any phenomena in Smyth's grammar that may realise the textual metafunction, except perhaps for issues of word order that subserve particular mood types, such as use of word order in interrogatives. See Smyth and Messing (1974) p.596 on the importance of word order in interrogative clauses. In any case, the grammar, by and large, does not see the organisation of information in a clause as being an issue of grammar.

### 3.2.3 Smyth's discussion of the genitive case

A case in point is the discussion of inflection in traditional grammars. Many of the inflectional categories, though they do imply a close relationship between meaning and form, end up being a compromise between these two aspects. Because there is some kind of priority given to the recognition of form, inadequate distinctions of meaning are given by such categories. An example of this is the category of the genitive for nouns and the classes of words that can qualify nouns in nominal groups. An examination of many instances of the genitive that occur in texts reveal that that their grammatical function varies quite significantly. Smyth's grammar makes a basic division between genitives in connection with other nouns ('substantives') and those that are 'dependent' in some way on verbs<sup>83</sup>, and then proceeds to subcategorise within these divisions in a sometimes overlapping way.

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THE GENITIVE

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SYNTAX OF THE SIMPLE SENTENCE

[1295

1286. In late poetry a predicate adjective may be attracted into the vocative: *δαίς κούρῃ γένου* blessed, oh boy, mayest thou be Theocr. 17. 66. Cp. *Matutine pater* seu *Iane Ibenitus audis* Hor. S. 2. 6. 20.

1287. By the omission of *σὺ* or *ὅς* the nominative with the article may stand in apposition to a vocative: *ὦ ἄνδρες οἱ παῖδες* you, gentlemen, who are present P. Fr. 837 c. *ὦ Κύρῳ καὶ οἱ ἄλλοι Πέρσαι* Cyrus and the rest of you Persians X. C. 3. 3. 20; and in apposition to the pronoun in the verb: *ὦ παῖς, ἀκούσθου* boy, attend me Ar. Ran. 621.

1288. The nominative may be used in exclamations as a predicate with the subject unexpressed: *ὦ τυχεὶς θεῶν* oh loathed of heaven S. Ph. 254. *φόνος ὦ Μενέλαε* oh dear Menelaus Δ 189; and connected with the vocative by *and*: *ὦ πόλις καὶ δῆμος* oh city and people Ar. Eq. 273. In exclamations about a person: *ὦ γενναῖος* oh the noble man P. Phae. 227 c.

a. *οὔτος* is regular in address: *οὔτος, τί πάρεστι, ὦ Σαρδῖά;* ho there, I say, Xanthias, what is the matter with you? Ar. Vesp. 1; *ὦ οὔτος, Αἴας* ho there, I say, Ajax S. Aj. 89.

GENITIVE

1289. The genitive most commonly limits the meaning of substantives, adjectives, and adverbs, less commonly that of verbs.

Since the genitive has absorbed the ablative it includes (1) the genitive proper, denoting the class to which a person or thing belongs, and (2) the ablative genitive.

a. The name *genitive* is derived from *casus genitivus*, the case of origin, the inadequate Latin translation of *γενεῖ πρῶτος* case denoting the class.

THE GENITIVE PROPER WITH NOUNS

(ADNOMINAL GENITIVE)

1290. A substantive in the genitive limits the meaning of a substantive on which it depends.

1291. The genitive limits for the time being the scope of the substantive on which it depends by referring it to a particular class or description, or by regarding it as a part of a whole. The genitive is akin in meaning to the adjective and may often be translated by an epithet. Cp. *στέρνας χροῖον* with *χρῶνός* *στέρνας*, *φόνος πολέμου* with *πολέμου* *φόνος*, *τὸ εἶδος πλέθρου* with *τὸ εἶδος* *πλεθραῖον* (1035). But the use of the adjective is not everywhere parallel to that of the genitive.

1292. In poetry a genitive is often used with *βιά*, *μένος*, *σθένος* might, etc., instead of the corresponding adjective: *βίῃ Διομήδεος* mighty Diomedes E 781.

1293. In poetry *δύμω* form, *ἑρῶ* and *κεφαλῇ* head, etc., are used with a genitive to express majestic or loved persons or objects: *Ἰσμήνης ἑρῶ* S. Ant. 1.

1294. *χρῆμα* thing is used in prose with a genitive to express size, strength, etc.: *σφειδοντήνων πεμδού* *τι χρῆμα* a very large mass of slingers X. C. 2. 1. 5. Cp. 1322.

1295. The genitive with substantives denotes in general a connection or dependence between two words. This connection must often be determined (1) by the meaning of the words, (2) by the context, (3) by the facts presupposed as known (1301). The same construction may often be placed under more than one of the different classes mentioned below; and the connection between the two substantives is often so loose that it is difficult to include with precision all cases under specific grammatical classes.

a. The two substantives may be so closely connected as to be equivalent to a single compound idea: *τελευτῇ τοῦ βίου* 'life-end' (cp. *life-time*) X. A. 1. 1. 1. Cp. 1146.

b. The genitive with substantives has either the attributive (1154), or, in the case of the genitive of the divided whole (1306), and of personal pronouns (1185), the predicate, position (1168).

1296. Words denoting number, especially numerals or substantives with numerals, often agree in case with the limited word instead of standing in the genitive: *φόνος τέσσαρα τάλαντα* a tribute of four talents T. 4. 57 (cp. 1323), *ἐς τὰς ναῦς, αἱ ἐφρούρουσαν δύο, καταφυγόντες* fleeing to the ships, two of which were keeping guard 4. 113. So with *οἱ μέν*, *οἱ δέ* in apposition to the subject (981).

GENITIVE OF POSSESSION OR BELONGING

1297. The genitive denotes ownership, possession, or belonging: *ἡ οἰκία ἢ Σίμωνος* the house of Simon L. 3. 32, *ὁ Κύρῳ στόλος* the expedition of Cyrus X. A. 1. 2. 5. Cp. the dative of possession (1476).

1298. Here may be classed the genitive of origin: *οἱ Σόλωνος ῥέμοι* the laws of Solon D. 20. 103, *ἡ ἐπιστολὴ τοῦ Φιλίππου* the letter of Philip 18. 37, *κυματα πασιπλῶν ἄνεμος* waves caused by all kinds of winds B 396.

1299. The possessive genitive is used with the neuter article (singular or plural) denoting affairs, conditions, power, and the like: *τὸ τῶν ἐφόρων* the power of the ephors P. L. 712 d, *τὸ τῆς τέχνης* the function of the art P. G. 460 c, *τὸ τοῦ Σόλωνος* the maxim of Solon P. Lach. 188 b, *ἀδελφὰ τὰ τῶν πόλεως* the chances of war are uncertain T. 2. 11, *τὰ τῆς πόλεως* the interests of the State P. A. 36 c, *τὰ τοῦ δήμου φρονεῖ* is on the side of the people Ar. Eq. 1216. Sometimes this is almost a mere periphrasis for the thing itself: *τὸ τῆς τύχης* chance D. 4. 12 *τὰ τῆς σωτηρίας* safety 23. 163, *τὸ τῆς δοῦλᾶς, ἀνδραγαθίᾳ* *ἐντὶ* the quality of holiness, whatever it is 21. 126, *τὸ τῶν περὶφρονέων ἡμῶν* we elders P. L. 657 d. So *τὸ τοῦτον* S. Aj. 124 is almost = *οὔτος*, as *τοῦμὲν* is = *ἐγώ* or *ἐμὲ*. Cp. L. 8. 19.

1300. The genitive of possession may be used after a demonstrative or relative pronoun: *τοῦτό μοι διαβάλλει* he attacks this action of mine D. 18. 28.

1301. With persons the genitive may denote the relation of child to parent, wife to husband, and of inferior to superior: *Θουκιδίδης ὁ Ὀλόρου* Thucydides, the son of Olorus T. 4. 104 (and so *ὦς* is regularly omitted in Attic official documents), *Διὸς Ἀρτεμῖς* Artemis, daughter of Zeus S. Aj. 172, *ἡ Ζαῖκυθωνος* Μελαρτίχῃ Melastichē wife of Smicrythion Ar. Eccl. 46, *Αἰδῶς ὁ Φερεικῶν* Lydus, the slave of Pherecles And. 1. 17, *οἱ Μένωνος* the troops of Menon X. A. 1. 6. 13 (οἱ τοῦ Μένωνος στρατιῶται 1. 5. 11).

<sup>83</sup> The following discussion is based on Smyth and Messing (1974) p.313-337 which lists the subcategories of genitives which he identifies.

Figure 3-11 Discussion of the genitive case 'in connection with nominals' in Smyth and Messing (1974) p.313-314

This bipartite division turns out to be a useful one, but the full implications of this are not fully understood or pushed. In functional terms, the bipartite distinction refers to the observation that the form traditionally associated with 'the genitive' realises a function at either group rank (the genitive in connection with the 'substantive') or clause rank (the genitive 'dependent on' the verb). Hence the distinction being made is at what constituency rank (clause or group) the function of the genitive might be operating. However this point is at best not clear, or at worst there is confusion between functions in different constituent units.

1307]	THE GENITIVE	315
	<p>a. In poetry we may have an attributive adjective: Τελαμώνιος Αἴας (= Αἴας δὲ Τελαμώνιος) B 628. Cp. 846 f.</p>	
	<p>1302. The word on which the possessive genitive depends may be represented by the article: ἀπὸ τῆς ἐαυτῶν from their own country (γῆς) T. 1.15 (cp. 1027 b). A word for dwelling (οἰκία, ὄμιος, and also ἱερὸν) is perhaps omitted after ἐν, etc, and sometimes after ἐξ. Thus, ἐν Ἀθήραις at Athens P. Pr. 329 a, ἐν Διωνύῳ (scil. ἱερῷ) at the shrine of Dionysus D. 5.7, ἐκ ἑδρακίου to go to school X. C. 2. 3. 9, ἐκ Παρορκίου ἐρχομαι I come from Patroclus's Ar. Plut. 84. So, in Homer, εἰς(εἰς) Ἀἶδα.</p>	
	<p>1303. Predicate Use.—The genitive may be connected with the noun it limits by means of a verb.</p> <p>Ἱπποκράτης ἐστὶ οἰκίας μεγάλης Hippocrates is of an influential house P. Pr. 316 b, Βαυονῶν ἡ πόλις ἔσται the city will belong to the Boeotians L. 12.58, ἡ Ζελαία ἐστὶ τῆς Ἀσίας Zela is in Asia D. 9.43, οὐδὲ τῆς αὐτῆς Θρήνης ἔγένοντο nor did they belong to the same Thrace T. 2.20, ἃ δῶκει τοῦ ψήφισματος, ταῦτ' ἐστὶν the clauses in the bill which he attacks, are these D. 18.66.</p>	
	<p>1304. The genitive with εἶμι may denote the person whose nature, duty, custom, etc., it is to do that set forth in an infinitive subject of the verb: πενία φέρει οὐ πτωτός, ἀλλ' ἀνδρὸς σοφοῦ 'tis the sage, not every one, who can bear poverty Men. Sent. 468, δοκεῖ δικαίον τοῦτ' εἶμι πειλῖται this seems to be the duty of a just citizen D. 8.72, τῶν νικῶντων ἐστὶ καὶ τὰ ἐαυτῶν σφίεν καὶ τὰ τῶν ἡττημένων λαμβάνειν it is the custom of conquerors to keep what is their own and to take the possessions of the defeated X. A. 3. 2. 58.</p>	
	<p>1305. With verbs signifying to refer or attribute, by thought, word, or action, anything to a person or class. Such verbs are to think, regard, make, name, choose, appoint, etc.</p> <p>λογίζω . . . τὰ δ' ἄλλα τῆς τύχης δοκέω the rest belongs to chance E. Alc. 789, τῶν ἐλευθερωτῶν οἶκον νομισθεῖσα deemed a daughter of a house most free E. And. 12, ἐμὲ γράφει τῶν ἱππεύων ὑπερεκδομήσιον put me down as one of those who desire exceedingly to serve on horseback X. C. 4. 3. 21, τῆς πρώτης τάξεως τεταγμένον assigned to the first class L. 14. 11, τῆς ἀγαθῆς τύχης τῆς πόλεως εἶμι I reckon as belonging to the good fortune of the State D. 18.264, εἰ δε τις τῆς Ἀσίας ἐαυτῶν πωσέσθαι but if some are claiming Asia as their own X. Ages. 1.33, νομίζει ὑμεῖς αὐτοῦ εἶμι he thinks that you are in his power X. A. 2.1.11.</p>	
	<p>GENITIVE OF THE DIVIDED WHOLE (PARTITIVE GENITIVE)</p>	
	<p>1306. The genitive may denote a whole, a part of which is denoted by the noun it limits. The genitive of the divided whole may be used with any word that expresses or implies a part.</p>	
	<p>1307. Position.—The genitive of the whole stands before or after the word denoting the part: τῶν Θρακῶν περλαστοὶ forgetters of the Thracians T. 7.27, εἰ ἔμποροι τῶν πτωχῶν the needy among the citizens D. 18.104; rarely between the limited noun and its article: οἱ τῶν ἀδίκων ἀφικνούμενοι those of the unrighteous who come here P. G. 526 c. Cp. 1161 N. 1.</p>	

Figure 3-12 'Partitive genitives' described in connection with both nouns and verbs— Smyth and Messing (1974) p.315, 320

οἱ δὲ θάνατος διὰ τὸ αὐτῶν δέος τοῦ θανάτου καταφρόνῃαι by reason of their fear of death men tell lies P. Ph. 86 a, Διωνύῳ προσβύτων χορὸς a chorus of old men in honour of Dionysus P. L. 605 b, ἡ τοῦ Λάχης τῶν νεῶν ἀρχὴ Laches' command of the fleet T. 8.115, ἡ Φαιάκων προετοίχευσι τῆς Κερκύρας the former occupation of Coreyra by the Phaeacians L. 25.

GENITIVE WITH VERBS

1339. The genitive may serve as the immediate complement of a verb, or it may appear, as a secondary definition, along with an accusative which is the immediate object of the verb (920, 1392, 1405).

1340. The subject of an active verb governing the genitive may become the subject of the passive construction: Νικέρατος ἐρῶν τῆς γυναίκος ἀντεράται Niceratus, who is in love with his wife, is loved in return X. S. 8. 3. Cp. 1745 a.

THE GENITIVE PROPER WITH VERBS

THE PARTITIVE GENITIVE

1341. A verb may be followed by the partitive genitive if the action affects the object only in part. If the entire object is affected, the verb in question takes the accusative.

Ἀδρήστου δ' ἔγημε θυγατρῶν he married one of Adrastus' daughters X. 121, τῶν πῶλων λαμβάνει he takes some of the colts X. A. 4. 5. 35, λαβόντες τοῦ βαρβαρικοῦ στρατοῦ taking part of the barbarian force 1. 5. 7, κλέπτουσι τοῦ θρους seizing part of the mountain secretly 4. 6. 15 (cp. τοῦ θρους κλέψαι τι 4. 6. 11), τῆς γῆς ἔρεμον they ravaged part of the land T. 2. 56 (cp. τὴν γῆν πᾶσαν ἔρεμον 2. 67 and ἔρεμον τῆς γῆς τὴν πολλήν 2. 56), κατέκρη τῆς κεφαλῆς he had a hole knocked somewhere in his head Ar. Vesp. 1428 (τὴν κεφαλὴν κατεῤῥέειν to have one's head broken D. 54. 35).

1342. With impersonals a partitive genitive does duty as the subject: πολέμου οὐ μετὴν αὐτῇ she had no share in war X. C. 7. 2. 28, ἐμοὶ οὐδαμῶθεν προσήκει τούτου τοῦ πράγματος I have no part whatever in this affair And. 4. 34. Cp. 1318.

1343. The genitive is used with verbs of sharing.

πάντες μετείχον τῆς ἐορτῆς all took part in the festival X. A. 5. 3. 9, μετέδωκαν ἀλλήλοις ὧν (= τούτων δ') εἶχον ἕκαστοι they shared with each other what each had 4. 5. 6, τὸ ἀνθρώπινον γένος μετέλθοιεν ἀθανασίας the human race has received a portion of immortality P. L. 721 b, στρον κοινωεῖν to take a share of food X. M. 2. 6. 22, δικαιοσύνη οὐδὲν ὑμῶν προσήκει you have no concern in righteous dealing X. H. 2. 4. 40, πολίτεσσι, ἐν ᾗ πένησιν οὐ μέτεστιν ἀρχῆς a form of government in which the poor have no part in the management of affairs P. R. 560 c. So with μεταλαγχάνειν get a share (along with somebody else), συναίρεσθαι and κοινοῦσθαι take part in, μετατρέφειν and μεταποιεῖσθαι demand a share in.

1344. The part received or taken, if expressed, stands in the accusative. οἱ τύραννοι τῶν μεγίστων ἀγαθῶν ἐλάχιστα μετέχουσιν tyrants have the smallest por-

It is evident that the overriding principle of organisation is that of form rather than meaning, as the genitive of a given noun will have the same form, and still be called a genitive, regardless of its grammatical function. This is apparent from the observations above, where a particular phenomenon is called a 'genitive' regardless at which constituency rank it is functioning. But this is potentially misleading. It implies that those forms given the label 'genitive' have the same function, whether they operate at the rank of clause or group. But one cannot conclude that this is so, and it is most likely not possible to make such a conclusion, since we are dealing with phenomena at two different ranks of constituency. In other words, a genitive active at the rank of group may not, and probably does not, have the same function as one active at the rank of clause.

The further subcategorisation of these genitives, however, appears to be done primarily on functional grounds, and Smyth explains how these categories are determined:

The genitive with substantives denotes in general a connection or dependence between two words. The connection must often be determined by (1) by the meaning of the words, (2) by the context<sup>84</sup>, (3) by the facts presupposed as known. The same construction may often be placed under more than one of the different classes mentioned below; and the connection between the two substantives is often so loose that it is difficult to include with precision all cases under specific grammatical classes<sup>85</sup>.

If we consider this statement, together with the observation that some subcategories are shared between those genitives associated with nouns and verbs, then a few conclusions can be drawn. The priority given to form means that the account of the genitive given by a traditional grammar cannot present the uses of the genitive in a functionally unified way. Furthermore, although it is acknowledged that the subcategorisation of individual instances of the genitive does have a close connection to other meanings in the clause and to the context of situation, there is no notion that

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<sup>84</sup> This is best interpreted in terms of systemic-functional linguistics as both 'co-text' and 'context of situation'.

<sup>85</sup> Smyth and Messing (1974) p.314.

these meanings and contexts can be systematised, in the way that the grammar can be systematised. This means that one cannot, using a traditional grammar, easily and clearly demonstrate interdependent choices in the three strata of context, semantics and lexicogrammar. The classifications provided by a traditional grammar are a reflection of competing priorities to classify according to form and meaning. As a result, the traditional grammar does not provide the full orientation of grammar to meaning that a functional approach to language, with a clear separation of linguistic strata, requires.

The drawbacks of traditional grammars, as exemplified by Smyth, have been outlined above. One problem is that meaning and form are not explicitly identified and separated in the grammatics. It is true that in the 'reality' of language in use, and in the development of language in the individual, that meaning and form are intimately connected, and that they co-vary. The problem is that *in a tool of linguistic analysis* the two issues are not separated, and this compromises linguistic analysis. This is a specific manifestation of not clearly allocating linguistic phenomena to the appropriate stratum. Secondly, traditional grammars do not discuss linguistic phenomena along metafunctional lines. This is mostly because it is only in recent times that linguistics has adopted the idea of being able to look at a given text in one or more perspectives– as a construal of experience, as social interaction, as information organised in a particular way; no 'fault' can be ascribed to the traditional grammarians. But it does mean that the traditional grammars do not have adequate tools to answer questions that the current linguistic conception of language provides.

### **3.2.4 The notion of the 'historical present'**

Some other categories traditionally used in commentaries in classical texts and in traditional grammars betray rather more confusion between strata. An example of this is the use of what is called the historical present– the use of the present tense to construe processes that have occurred in the past. The traditional view is that these present verbal forms are used to make the narrative 'vivid', or to 'highlight' certain

events in the narrative. More recently this view has been revised to say that it is used in clauses in narrative that

'...constitute what is primarily important with respect to the purpose the narrative is to serve in its context.'

and

'In longer complex stretches of narrative...the HP (historical present) may be used for lifting out from a continuous narrative those narrative assertions that, together, constitute what the author intends to be its main line; it may also be used for distinguishing an embedded story, or a separate strand of narrative, from the narrative as a whole<sup>86</sup>.'

This modern revision may characterise the use of the historical present in more precise detail, but attempting a modern interpretation of a traditional category perpetuates some of the problems associated with it– in particular, the failure to delineate strata and metafunctions clearly. What is apparent from these explanations is that it is a unit at the level of grammar that realises certain choices at the level of semantics and context of situation. Furthermore, it appears that these choices lie within the textual and logical metafunctions, correlating to functional linguistic notions of Macro-Theme and Hyper-Theme<sup>87</sup> and certain shifts in the method of development of text and rhetorical structure. Again, a wide range of stratically- and metafunctionally-oriented material is lumped together under the guise of a grammatical category, where this material could be better systematised. Furthermore, there is not much of a sense of how this use of the historical present is

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<sup>86</sup> See Sicking and Stork (1997), p.165ff. This article attempts a revised explanation of this particular grammatical phenomenon with reference to narrative in tragedy, philosophy, oratory and history.

<sup>87</sup> For the notion of Macro-Theme and Hyper-Theme in English, see Martin (1992) p.437-448. However, Martin seems to emphasise the 'predictive' nature of these entities, where, for example, Hyper-Theme predicts the kinds of construals in the logogenetically later co-text and in turn the Themes of its clauses. The use of the historical present in Greek is not so much 'predictive', more a summary or 'synopsis'– not incompatible with the 'predictive' quality of Hyper-Theme and Macro-Theme.

seen in relation to the other functions of the morphological present tense. Hence, if one were to use the category in a linguistic analysis, it would obscure what particular aspect of the language one wanted to talk about, and becomes less useful when issues at a specific stratum or metafunction need to be discussed.



### 3.3 The valuable aspects of traditional grammars

There are quite a few fundamental problems with the formulations of traditional grammar that make using it as a tool of analysis for current linguistic issues problematic. However, it must be said that the traditional grammars did provide valuable principles of organisation of a language's lexicogrammar, and that a modern grammatics should preserve and build on them. Indeed, functional grammars do build on these principles, to their advantage. The first is that of the principle of the paradigm, most commonly manifested in the traditional declensions of nouns and conjugations of verbs– those parts of the grammar that deal with 'inflection'.

114	CONJUGATION OF Ω-VERBS			[383]	VOWEL VERBS: ACTIVE OF λύω			115											
I. (A) VOWEL VERBS:																			
383.	I. ACTIVE																		
NOT CONTRACTED																			
VOICE OF λύω																			
			1 Aorist			1 Perfect													
						1 Pluperfect													
INDICATIVE.																			
S.	1.	λύω	ἐλύον	λύσω	IND. S.	1.	ἔλυσα	ἐλύκη											
	2.	λύεις	ἔλυσες	λύσεις		2.	ἔλυσας	ἐλύκης											
	3.	λύει	ἔλυσεν	λύσει		3.	ἔλυσεν	ἐλύκει (ν)											
	D.	λύετε	ἐλύετον	λύσετον		D.	ἐλύσατον	ἐλύκετον											
	3.	λύεσθαι	ἐλύεσθαι	λύσεσθαι		3.	ἐλύσασθαι	ἐλύκεσθαι											
	P.	λύομαι	ἐλύομαι	λύσομαι		P.	ἐλύσασθαι	ἐλύκεσθαι											
D.	1.	λύεσθε	ἐλύεσθε	λύσεσθε	D.	1.	ἐλύσασθαι	ἐλύκεσθαι											
	2.	λύεσθε	ἐλύεσθε	λύσεσθε		2.	ἐλύσασθαι	ἐλύκεσθαι											
	3.	λύεσθε	ἐλύεσθε	λύσεσθε		3.	ἐλύσασθαι	ἐλύκεσθαι											
	P.	λύομαι	ἐλύομαι	λύσομαι		P.	ἐλύσασθαι	ἐλύκεσθαι											
	1.	λύομαι	ἐλύομαι	λύσομαι		1.	ἐλύσασθαι	ἐλύκεσθαι											
	2.	λύομαι	ἐλύομαι	λύσομαι		2.	ἐλύσασθαι	ἐλύκεσθαι											
SUBJUNCTIVE.																			
S.	1.	λύω			SUBJ. S.	1.	λύω	ἐλύω (891) or ἐλύω (892)											
	2.	λύῃς				2.	λύῃς	ἐλύῃς											
	3.	λύῃ				3.	λύῃ	ἐλύῃ											
	D.	λύητον				D.	λύητον	ἐλύητον											
	3.	λύητον				3.	λύητον	ἐλύητον											
	P.	λύομαι				P.	λύομαι	ἐλύομαι											
D.	1.	λύομαι			D.	1.	λύομαι	ἐλύομαι											
	2.	λύομαι				2.	λύομαι	ἐλύομαι											
	3.	λύομαι				3.	λύομαι	ἐλύομαι											
	P.	λύομαι				P.	λύομαι	ἐλύομαι											
	1.	λύομαι				1.	λύομαι	ἐλύομαι											
	2.	λύομαι				2.	λύομαι	ἐλύομαι											
OPTATIVE.																			
S.	1.	λύοιμι	λύοιμι	λύοιμι	OPT. S.	1.	λύοιμι	ἐλύοιμι, -οίην											
	2.	λύοις	λύοις	λύοις		2.	λύοις	ἐλύοις, -οίης											
	3.	λύοι	λύοι	λύοι		3.	λύοι	ἐλύοι, -οίη											
	D.	λύοιτον	λύοιτον	λύοιτον		D.	λύοιτον	ἐλύοιτον											
	3.	λύοιτον	λύοιτον	λύοιτον		3.	λύοιτον	ἐλύοιτον											
	P.	λύοιμαι	λύοιμαι	λύοιμαι		P.	λύοιμαι	ἐλύοιμαι											
D.	1.	λύοιμαι	λύοιμαι	λύοιμαι	D.	1.	λύοιμαι	ἐλύοιμαι											
	2.	λύοιμαι	λύοιμαι	λύοιμαι		2.	λύοιμαι	ἐλύοιμαι											
	3.	λύοιμαι	λύοιμαι	λύοιμαι		3.	λύοιμαι	ἐλύοιμαι											
	P.	λύοιμαι	λύοιμαι	λύοιμαι		P.	λύοιμαι	ἐλύοιμαι											
	1.	λύοιμαι	λύοιμαι	λύοιμαι		1.	λύοιμαι	ἐλύοιμαι											
	2.	λύοιμαι	λύοιμαι	λύοιμαι		2.	λύοιμαι	ἐλύοιμαι											
IMPERATIVE.																			
S.	2.	λύε			IMP. S.	2.	λύε	ἐλύε (897) or ἐλύε											
	3.	λύετω				3.	λύετω	ἐλύετω											
	D.	λύετον				D.	λύετον	ἐλύετον											
	3.	λύετων				3.	λύετων	ἐλύετων											
	P.	λύετω				P.	λύετω	ἐλύετω											
	3.	λύετων				3.	λύετων	ἐλύετων											
INFINITIVE.																			
				λύειν															
PARTICIPLE.																			
				λύων, λύουσα, λύν (305)															
PART.																			
				λύων, λύουσα, λύν (305)															

Figure 3-13 The inflectional paradigm for active voice forms of *luô* 'I loose'– Smyth and Messing (1974) p.114-115

Paradigms imply the notion of choice. Grammars were initially developed to account for the observed differences of morphological and phonological form of lexical items from clause to clause, and to provide an account of perceived regularities of form in given clause environments. What these paradigms imply is that there are choices of form (either syntactic or lexical form) which are made in relation to other choices of syntactic or lexical form in the clause. In short, the paradigms of various word classes were formulated out of perceived differences in form, and out of the observation that these forms varied in a systematic way which could often be predicted from the other syntactic and lexical forms found in a given clause. As noted above, rather too much emphasis was given to form as the primary determinant of a grammatical category. But the notion of choice as a central characterisation of the grammar of a language has been enduringly useful, and is not in dispute.

Choice is one valuable aspect of the paradigm. The other is that of the notion of a network of relations between choices. A particular declension of a noun or conjugation of a verb is, in essence, a relational network of categories. It is relational because each member of the paradigm has similarities and differences to another member, and thereby these members have different *valeurs*. It is a network because these members are all particular options, related to each other by their similarities and differences, that are available for selection in given semantic or contextual environments. Thus the notion of choice becomes specified to that of 'choice among interrelated options'. This concept has been carried over wholesale into modern functional linguistics and generalised beyond inflectional categories within the description of lexicogrammar, and to other linguistic strata. For instance, within the lexicogrammar of English, 'imperative' and 'indicative' are considered to be interrelated options within the paradigm of 'mood type'. Descriptions of the semantic stratum within functional linguistics, as exemplified by Halliday and Matthiessen<sup>88</sup>, employ the paradigmatic approach. Functional linguistics has found this particular

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<sup>88</sup> See Halliday and Matthiessen (1999).

take on the paradigm to be reflective of how language systems are actually used. It has generalised the use of the paradigm to describe sets of related lexicogrammatical functions, not just sets of structurally related entities.

In addition, the categories proposed by the traditional grammars do have some kind of functional motivation, and are often described with terms that imply a grammatical function. Any clause in Greek has grammatical categories that are categorised in semantic terms. An example from Herodotus will be used to illustrate this point. The lexical items in the clause have been 'parsed' according to the categories of traditional grammar.

Herodotus 2.66 Herodotus describes the behaviour of cats in Egypt during house fires

		$\beta$ 1			$\beta$ +2
hoi de	aïelouroi	<<diadunontes		kai	
The PART	cats (1)	slipping through (2)		and	
$\alpha$					
hyperthrôiskontes	tous anthrôpous>>	esallontai	es	to	pur
jumping over (3)	the men (4)	they leap (5)	into	the	fire (6)

...but the cats <<slip through || and jump over the men>>, and leap into the fire

- (1) nominative plural
- (2) masculine nominative plural present participle active
- (3) masculine nominative plural present participle active
- (4) accusative plural
- (5) third person plural present indicative middle
- (6) accusative singular

As pointed out before, the primary criteria by which the labels are applied is by inflectional form– for example the morpheme /-ous/ in (4) allows *anthrôpous* to be labelled as an accusative plural. But this designation also signals the potential functional role that this accusative might play– that it could be the 'focus' towards or around which an activity takes place (corresponding to the functional notion of Range) . The functional motivation behind the categories is especially apparent in (6), where there is nothing in the morphology of the word to distinguish it from the nominative or vocative, which are also *pur*. But (6) is classified as accusative because the other selections of lexicogrammar in the clause (the use of a prepositional phrase to specify the directionality of a process and the required case selection within the prepositional phrase) 'require' the accusative– what Whorf once termed 'reactance'<sup>89</sup>. This 'requirement' or reactance is a functional phenomenon. The categorisation of (6) depends on functional roles within the clause that are functionally motivated, and not because of properties of the phonological or morphological systems of Greek. Therefore the technique of 'parsing' within the framework of traditional grammar is, at least in part, done on functional criteria. What the perspective of functional linguistics has done is to build on this aspect of categorising by function, and to explicitly separate it from categorisation by form– something which the traditional grammars did not do systematically. Thus, it is important to point out that adopting a functional approach to language analysis is not to entirely jettison the legacy of the traditional grammar, but to extract what is valuable about it and rectify its weaknesses.

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<sup>89</sup> Whorf (1956) p.89. The notion of reactance is much broader than the present discussion might suggest. Here the notion is being applied solely to other constituents of the clause. But a particular clause constituent may realise a particular grammatical function because there is a reactance with semantic or contextual environments. For example, the lexical item mouse may realise the grammatical category of process in the context of computer discourse and in association with other meanings made in the clause.

### **3.4 The status of traditional grammatics with respect to functional grammatics**

At this point it is useful to summarise what has been said so far about traditional grammars, and what a functional grammar brings to the task of linguistic analysis of a text. The most important legacies of traditional grammatics have been the paradigm and categorisation according to function and form at a particular level of a language. These two concepts imply the notion of choice and the close interrelationship of meaning and form, respectively, at the level of lexicogrammar; these were always implicit notions rather than explicitly stated, but they were there, nevertheless. However, traditional grammatics posited categories that were a compromise between the axes of meaning and form, with the result that neither was categorised satisfactorily. More often than not, there was a bias to categorisation by form, with the result that important relationships between some phenomena were obscured, and inappropriate ones set up between others. Furthermore, some of the categories were characterised by criteria that were operative at different strata or levels of constituency, or, at best, there was a failure to explicitly locate those criteria at the appropriate level. This is problematic for the occasions when one wants to conduct linguistic analysis to answer specific questions about the grammar, meaning or context of a text. Functional grammatics builds on the notions of choice and semantically motivated grammatical categories, but is more 'level-aware' in the way that it allocates specific phenomena to specific levels of language. Thus analysis, backed by such a grammatics, is more amenable to answering specific questions about a text, and fits more comfortably into projects, such as this thesis, that demand multi-level analyses of a text. It also enables one to ask specific questions about what roles are had by the linguistic resources deployed in those texts.

### **3.5 Presentation of the functional grammar of ancient Greek clauses**

At this point, an outline of how the functional grammar will be presented will be given. Because of the relatively specific questions this thesis asks, the grammar presented here will be oriented to those concerns. Thus, there will be particular aspects and issues foregrounded and backgrounded in this presentation, compared to a grammar that is formulated 'for its own sake' and aims at a complete coverage of all lexicogrammatical phenomena for a given language. The presentation of the various categories will also differ slightly from other functional grammars such as Halliday's treatment of English functional grammar. This will be done, partly to satisfy some theoretical concerns, but also to give a better sense of what clauses in ancient Greek are like in their totality.

#### **3.5.1 Particular metafunctional biases adopted**

Functional grammars take the clause as their starting point for an analysis of those parts of a lexicogrammar exemplified by a text<sup>90</sup>. This necessarily involves a difference of perspective in doing grammatical analysis; we are taking clauses to see how their functions are configured by their constituent units, rather than taking words or groups of words and seeing how they are combined into clauses.

The configuration of clauses can be looked at in different ways according to the particular metafunction of interest in the analysis– ideational, interpersonal or textual. Since this thesis is concerned with a linguistic analysis to elucidate the construal of

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<sup>90</sup> See Halliday (1994) p.19 which justifies this standpoint on the basis that any grammar orientated to meaning– a 'higher' stratum– should take larger units (such as clauses) rather than smaller units such as groups or words as the departure point for analysis.

experience, or, in a naïve sense, how it represents 'states of affairs', the ideational metafunction is of primary importance.

### **3.5.2 The primacy of process type in the clause**

Another feature of the grammar that will be presented here is that whole clauses are initially assigned to process types in the first instance. After this is done, the categories that are associated with these process types, which are mapped onto groups within the clause, are given. There are a few reasons for presenting the grammar in this way, both theoretical and practical.

The great practical advantage is that this kind of presentation follows the method of analysis of clauses from a functional perspective– the process is usually identified and categorised first, followed by treatment of the functional roles associated with the process. Furthermore, many of the labels assigned to the various functional constituents of the clause are inherent to process type<sup>91</sup>.

Another related reason is that, from the ideational perspective, process is the minimum necessary functional role in a clause. Before justifying this statement, one has to define exactly what a clause is.

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<sup>91</sup> For instance, in the functional grammar of English, the term Actor is linked to material processes, Senser to mental processes, Sayer to verbal processes, among many other labels. These can all be considered to be specialisations of a more general category of 'main participant' found in many clauses. However there appear to be functional categories for some kinds of clauses uniquely related to particular process type, such as Token and Value in relational clauses. See Halliday (1994) p.106-149.

### **3.5.3 A metafunctionally oriented definition of the clause**

From a practical viewpoint, it is often convenient to take a clause as that stretch of text, the functional roles within which are directly related to that of a single verb or verbal group<sup>92</sup>. However, it pays to look at this issue from the point of the metafunctions, so that our definition of the clause is as consistent as possible across many different kinds of linguistic analysis.

From the ideational perspective, a clause is the minimal unit of lexicogrammar in a text that, within the contexts of situation and culture associated with that text, construes an event in the world, where certain entities are involved in some kind of process. More concisely, it is the typical realisation in lexicogrammar of a figure at the stratum of semantics<sup>93</sup>. From the interpersonal perspective, one can think of a clause as the minimum unit of lexicogrammar in a text that, within the associated contexts of situation and culture, enacts some kind of social exchange– whether this is giving or demanding information, or offering or demanding goods or services. Again, this is a realisation in lexicogrammar of speech roles at the level of semantics<sup>94</sup>. From the textual perspective, the clause is the minimal unit of lexicogrammar in a text, in context, that comprises information structured in a certain way. The way it is structured can be described in terms of how 'psychologically salient' each part of the information structure is, or which part serves as 'the starting point' for the unit of information (systems of theme and rheme), or how new each part is to the text and context (systems of information). This structure, because its constituent parts vary

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<sup>92</sup> See Martin, Matthiessen et al. (1997) p.28ff.

<sup>93</sup> This is implicit in the way a figure is defined in Halliday and Matthiessen (1999) p.52.

<sup>94</sup> The speech roles outlined above are, in the interpersonal grammar of English, realised in the 'mood block' and residue of the clause. The relationship of realisation is implied in Halliday (1994) p.71ff: 'When we come to look closely at statements and questions, and at the various responses to which these naturally arise, we find that in English they are typically expressed by means of a particular kind of grammatical variation...'



along the axes of the above systems, allows the unit to be part of a text, and to contribute to the development of the text as a whole.

For a given text, division into clauses along all three metafunctional lines will not result in exactly the same clause divisions. For instance, what counts as a unit of social exchange or interaction may not count as a realised figure or a piece of information with enough of a structure to take part in further development of a text. Consider the following passage:

Aristophanes *Clouds* 244-254 Socrates asks Stesichorus (who is badly in debt and needs speaking skills to defend himself in court) to swear that he will pay up appropriately for his tuition

St.      alla me didaxon ton heteron toin soin logoin,|| ton mêden apodidonta. |||  
misthon d' hontin' an prattêi m',|| homoumai <<soi katathêsein>> tous thêous.

Anyway, teach me the other of your two arguments, || the one that gets me out of paying anything. |||  
You can charge me whatever fee– || I swear <<that I will pay it to you>> by the gods. |||

So.      poïous thêous omei su? ||| prôton gar thëoi hêmin nomism' ouk esti. |||

What sort of gods are you going to swear by? ||| Firstly, the gods are not our currency. |||

St.      tôi gar omnute? ||| Sidarëoisin [^], hôsper en Busdantîôi? |||

So what do you swear on? ||| On iron coins [^], like they do in Byzantium? |||

So.      boulei || ta theïa pragmat' eidenai || saphôs hatt' estin orthôs? |||

Do you want || to know about matters to do with the gods || what the real truth is? |||

St.      nê Di', || eiper esti ge. |||

Yes, by Zeus, || if indeed it is the truth. |||

So.      kai sungenesthai tais Nephelaisin eis logous, tais hemeteraisi daimosin? |||

And to converse with the Clouds, our gods? |||

St.      malista ge.|||

Yes, please. |||

So.      kathisde toinun epi ton hieron skimpoda.|||

Then sit down on the sacred bed. |||

The clauses have been divided from each other with reference to the interpersonal metafunction– the minimum length units that can stand in this text and context as chunks of social exchange or interaction. But it is clear that many of them cannot stand as minimum units of the construal of experience, or as units with an information structure; this is particularly applicable to the affirmative or negative responses of one character to the statements or questions of the other. It may be argued that these are really 'minor clauses' and therefore are not included in a clause analysis<sup>95</sup>. However, the definition of a minor clause so far presented in a functional grammatics rests solely on textual criteria– they have no information structure. The point here is that picking out the units of analysis really depends on the metafunction being considered. From the ideational or experiential viewpoint, the clause is taken in ancient Greek to be those lexicogrammatical units of text that construe at least a process– in a sense, this is the ideational interpretation of the requirement that clauses have at least a verbal group, or one that is ellipsed<sup>96</sup>. This will be the major criterion on which clauses will be divided in this thesis.

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<sup>95</sup> See Halliday (1994) p.43 and Martin, Matthiessen et al. (1997) p.28.

<sup>96</sup> Again, see Martin, Matthiessen et al. (1997) p.28. The principle of clauses construing experience primarily and in the first instance as processes or 'goings-on' is argued in Halliday (1994) p.106.

### 3.5.4 The centrality of process to the clause construing experience

It has been implied so far that a process is crucial to a clause if it is required to construe experience. However, this point also has to be argued. The essential characteristic of clauses that construe experience is that they do so by representing change in the world– what is referred to by the term 'transitivity'<sup>97</sup>– and that this is the way that clauses impose order on the various happenings that go on in the world surrounding language speakers. To do so, clauses have systems that set up a functional category of Process. In English and ancient Greek, like in other IE languages, this is often realised as a verbal form or group. In the passage from Aristophanes above, it can be seen that those clauses that do not have a verbal form do not have a process, and therefore do not construe a 'happening' in the world, whether this happening is current, non-current, hypothesised or projected to occur.

It can be argued that there are some clauses that appear to lack a verbal form but still represent some kind of 'going on', but in such cases, a process is inferred from context:

Demosthenes *Against Meidias* 136-137 Demosthenes asserts that the defendant Meidias cannot possibly have recourse to particular arguments in order to get out of the present crime of which he is accused

horô...|| logous d' aphthonous toïoutous huparkhontas || "tis humôn emoi ti sunoide toïouton? ||| tis humôn eme tauth' <<hëorake>> poiounta? ||| Ouk estin, || all' houtoi di' ekhthran katapseudontai mou, || katapseudomarturomai," ta toïauta; ||| toutôi d' au tanantia toutôn [^]. |||

I observe...|| that they (defendants) have a great number of arguments available to them, such as || "Who among you knows such a thing to have been done by me? ||| Who among you <<has seen>> me

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<sup>97</sup> See Halliday (1994) p.106.

doing these things? ||| There is no-one who has– || but my accusers because of their enmity are making false accusations against me, || I am having false testimony being brought against me," and so on; ||| but for the present defendant, it [^?is ? there is available?] very much the opposite situation. |||

The last clause does not contain any kind of verbal form (the verbal forms are underlined), but it is clear that it is construing a state of affairs. It does so because it assumes a process of being (in functional terms, a relational process or an existential process), and this in turn is inferred from the context. At the same time, however, this is not a case of true ellipsis, but there is no specific process being ellipsed or assumed– it could be either *eimi* 'to be' or *huparkhō* 'to be available'. In this last clause, there is a process; it is just that its formal realisation is 'zero', or that it is not mapped onto any structural form of the lexicogrammar. This is a common feature in Greek. The reasons why this may happen could be quite varied between registers and genres. However certain literary genres (such as here in oratory) may place some kind of priority to prosody and 'stylistic concerns' rather than to complete explicitness. Alternatively, such constructions may be a common feature of the spoken variety– what might be loosely called 'idiomatic usage'. In any case, we are still left with the task of explaining why, in short, there is a process, but no verb.

### 3.5.5 Process as a property of the whole clause

In the last section, we have discussed clauses that appear to construe a 'state of affairs' despite the lack of a verbal form. In such cases, one might ask which part of the clause should be labelled 'process'. One alternative is to insert an 'elided' or 'assumed' process, but this runs the risk of inserting into clauses what is not there in the first place, and then including these insertions into the clause analysis proper.

Furthermore, as with the above example from Demosthenes, it is not clear exactly what kind of process is being elided or assumed. Here, it may not even be clear what process type it should be. It could be a relational attributive process (typically realised by the verb 'to be', as in English) or an existential process which directly assumes the verb *huparkhō* 'exist, be at one's disposal', the present participle of which,

*huparkhontas*, occurs in the preceding text. Thus to say that a specific process has been elided or assumed, for a clause that apparently lacks one, become problematic.

The alternative approach is to say that there is a process in the clause with 'zero mapping', as has been proposed before. The other formal word categories present in the last example clause (nouns, adjectives, demonstrative pronouns, particles) do not typically realise a process in Greek language systems, so the process appears to be 'zero mapped'. Typical grammatical analyses tend to append labels to parts of the clause; but where in this clause, or to what part, should we attach the label 'process'? We cannot do so. In such a case, we would have to say that process is a property of the whole clause and not simply of one or more of its constituent parts. The process is there because the other selections that are made and configured together in the clause interact with each other to require a process. In this thesis, this approach is followed, where whole clauses are labelled with a Process; however, any verbal form to which this Process might be mapped is also supplied in the analysis for convenience.

The other reason for considering process as a property of the whole clause is that such a view encompasses a broader range of languages where it becomes increasingly difficult to assign the label 'process' to a specific clause constituent. Thus taking this view in a grammatics allows better, more consistent comparison between languages—one of the aims of a functional grammar of ancient Greek. Furthermore, such a view is, at worst, not incompatible with the usual view of Process in the IE languages, and, as has been demonstrated above, possibly provides more explanatory power while avoiding the tendency to insert 'missing' parts of clauses.

The notion that process is a property of the whole clause further reinforces the notion that process categorisation has primacy in an experiential analysis of a text, and in the presentation of the experiential grammar of a language through a functional grammatics. The reasons for doing so are both theoretical and practical. This primacy is in line with the procedure of clause analysis. It most accurately and fully

represents the experiential aspect of clauses, and the role of process in them, and provides easier comparison between languages described functionally.

## **CHAPTER 4**

### **Linguistic Prolegomena III– Towards a semantics and semiotic context for ancient Greek**

So far, we have had to consider carefully what kind of SFL approach we should have to the description of the lexicogrammar of ancient Greek. Similarly, we should also consider carefully how we might describe the semantic systems of the language. We need some kind of theoretical framework for the description of the 'conceptual elements' that are 'meant' by the lexicogrammar and which underpin the registers and genres in ancient Greek that are left to us. This is also particularly important for the consideration of metaphor later in this thesis, and for the understanding of the meanings being created by the texts under consideration in this thesis.

In turn, the registers and genres of Greek are those aspects of the semantic systems of the texts that most directly reflect the context of both the situations in which the texts were produced and received, and the culture that gave rise to their producers and audience. Systematic ways of describing this would be useful for Greek, and indeed for any ancient language. The principal aim of ancient world studies– whether this be through literature studies, linguistics, historiography, art and archaeology– is reconstruction of contexts, and a consistent theoretical framework for context would be of use in integrating findings from different disciplinary approaches to propose such reconstruction.

The theoretical models for semantics and context used in this thesis are essentially those that have been developed within the SFL tradition. These models provide a great degree of 'affinity' for the functional approach to the lexicogrammar adopted here, and thus facilitate a mapping between context, semantics and lexicogrammar for

the texts examined in this thesis. However, there needs to be exemplification and qualification for these models for a 'dead' language, and its 'dead' speech community.

## **4.1 'Low-level' semantics and 'high-level' semantics**

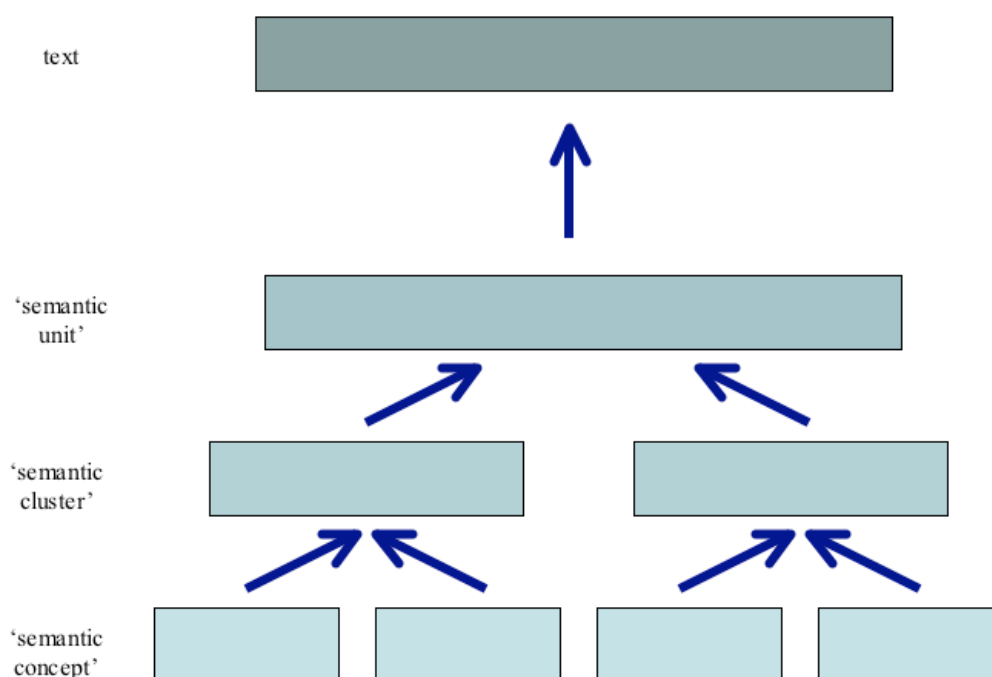
But before discussing contextual issues, we should first describe text in terms of semantic configuration, in order to have an idea of the co-text that surrounds the lexicogrammar. This is also relevant to the description of metaphorical processes. To discuss the semantic configuration of a text, it is necessary to look at it 'from below' and 'from above'. Each of these will be discussed, keeping in mind that, in the systemic-functional theoretical model, semantics realises context (of culture and situation), and is in turn realised by lexicogrammar (keeping in mind the notion of metaredundancy).

In a theoretical account of semantics, we should try to account for as many semantic phenomena as possible. Given that a text can be of any length, and can be configured in an almost limitless number of ways, this is a daunting task. More specifically for this discussion, we have to deal with phenomena of different scales, ranging from small elements of meaning or 'concepts' right through to whole sections of a long text, or a whole text. A theoretical statement has to encompass these phenomena in as unified an account as possible.

There are two possible ways of encompassing this range of phenomena at the stratum of semantics. The first is to take the compositional viewpoint– that there is something analogous to a 'rank scale' in the semantic stratum. This is analogous (or homologous, if one wants to also keep in mind that semantics and lexicogrammar diverged from a Hjelmslevian 'plane of content') to the rank scale found in the lexicogrammar, where words constitute groups, which in turn constitute clauses. In the same way, one might think of the semantic stratum as being compositionally organised in this way, that we



have certain semantic units that make up larger semantic units, that make up still larger ones, and so on, leading up to the semantic unit of the text. This approach was implicit in 'componential' approaches to semantics<sup>98</sup>. Taking this compositional view of semantics is one way of encompassing the large differences of scale among semantic phenomena.



**Figure 4-1 A 'compositional' approach to semantics**

Alternatively, in line with how the lexicogrammar is viewed in systemic-functional linguistics, we can take the viewpoint of complementary perspectives. In essence, this is the dual complementarity of viewing the semantic stratum 'from below' and

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<sup>98</sup> For a description of componential semantic analysis in these terms, see Lyons (1977) p.317-335. It perhaps is no surprise that such analysis is usually applied to determining the sense of lexical items.

'from above'. This assumes that any linguistic stratum has a dual orientation, to the stratum that it realises, and to the stratum by which it is realised. Thus we characterise semantics with respect to the functional configuration of the clause, resulting in a clausally-oriented account of the semantic stratum with similar distinctions as are made between functional categories in the lexicogrammar. At the same time, we can characterise it with respect to the context of situation and the situation of culture, and see semantic entities as holding value as a functional part of a genre or register. A configuration of semantic entities within a text can be described as a register with respect to the context of situation, or as a genre with respect to the context of culture<sup>99</sup>.

The 'rank scale' conception of the semantics can be criticised on two fronts. Firstly, it is rather misleading to suggest that semantic entities of different scales are related to each other by univariate constituency. Evidence for this can be found in the functional configuration of clauses in the lexicogrammar<sup>100</sup>. We have already referred to the complementary perspectives of structure and function on the lexicogrammar, and that the structural perspective lends itself to a view of univariate structural constituency, because it is oriented to systems of expression. However, this cannot be applied in a straightforward way to the semantic stratum, because we are dealing with functions and meanings that do not readily fit a segmental model. Evidence of the lack of segmentality can be found in the way that various functional elements of the clause do not map readily onto specific structural elements; as discussed earlier in this thesis, the Process of a clause does not map simply onto a verbal group as easily as one might suspect.

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<sup>99</sup> For an example of a culturally-oriented staging of an ancient Greek text type, see the description of the genre of ancient Greek tragedy in Easterling (1997), although this description does not explicitly use a functional linguistic or semiotic approach.

<sup>100</sup> The issue of univariate and multivariate configurations with respect to the lexicogrammar is discussed in Halliday (1994) p.20-28 through the description of maximal and minimal bracketing of clauses.

Additionally, we also have to deal with different types of logical relationships between entities that are meaning-bearing or meaning-creating in some way. The functional characterisation of the lexicogrammar shows us that meanings stand in relation to one another in a text in various kinds of tactic and logico-semantic relationships; this in itself shows that elements of meaning of a given 'rank' do not stand in a univariate relationship to a larger semantic unit. Furthermore, an examination of the system that underlies, for instance, the experiential configuration of the clause shows that the Process is in some sense the 'dominant' element of the clause, and the various other elements more 'subsidiary' to some extent. Matthiessen's conception of the 'nuclearity' and 'peripherality' of various functional elements of the clause<sup>101</sup> implies that these relationships are not univariate. It is this involvement of systems of logical meaning which further erode any claim that semantics can be described in terms of constituent structure.

Despite the lack of constituent structure, a carefully articulated notion of 'semantic rank scale' can still be applied. This is inherent in the notion of 'semantic cycles' as proposed by Butt<sup>102</sup>. Here, the various levels of the 'rank scale' are not related to each other in terms of constituency. Instead, the overall semantic process is characterised as proceeding along several levels simultaneously, and that these processes are nested within each other; in the theoretical model, these processes are represented by system networks at each level. Through this framework, the proposal attempts to draw together several discretely pursued attempts at characterising the semantic stratum, such as Hasan's message semantics and notion of genetic structure potential<sup>103</sup>, Cloran's rhetorical units<sup>104</sup>, and Halliday and Matthiessen's sequence / figure / element model of semantics.

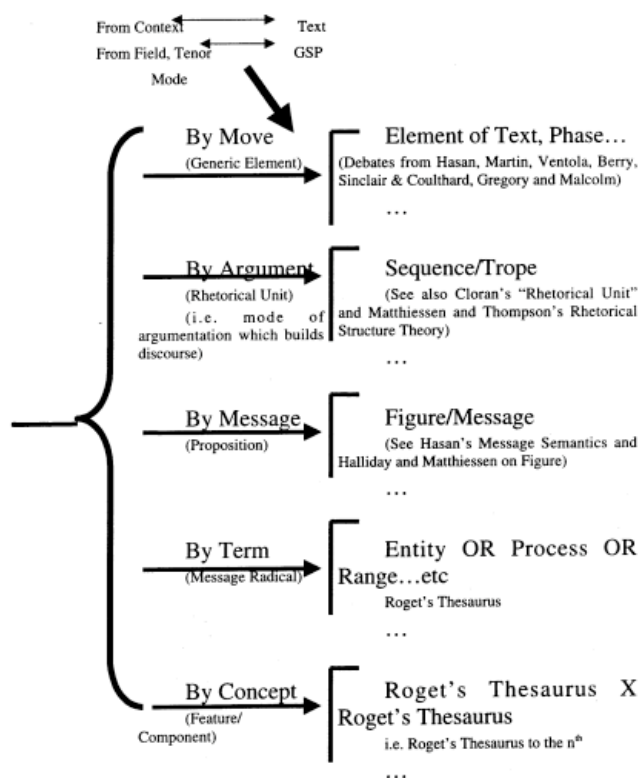
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<sup>101</sup> See Matthiessen (1995) p.197.

<sup>102</sup> See Butt and Matthiessen (draft, 2000) p.228-241.

<sup>103</sup> See Hasan (1996).

<sup>104</sup> See Cloran (1993) – not cited in this thesis.



**Figure 4-2 The notion of 'semantic cycles'– Butt and Matthiessen (draft, 2000)**

However, as has been noted before, semantics has a dual orientation to the strata 'above' and 'below'. Consequently, there is always the potential to characterise much, if not all, semantic phenomena 'from above' and 'from below'. Doing so may have a valuable payoff. We might end up with a useful account of generically or situationally relevant elements of meaning; evidence for this may be found in the way certain elements of meaning are realised as wording that is distinct for a given genre, in the way 'once upon a time' is often taken as a 'marker' of the genre of the nursery tale<sup>105</sup>. Conversely, we may also find value in finding relatively 'large' semantic units whose characteristics are homologous or analogous to those of the lexicogrammar. This may be useful in order to know how far-reaching or 'global' the semantic effects of lexicogrammatical semogenesis are in a given text. We have seen how the context

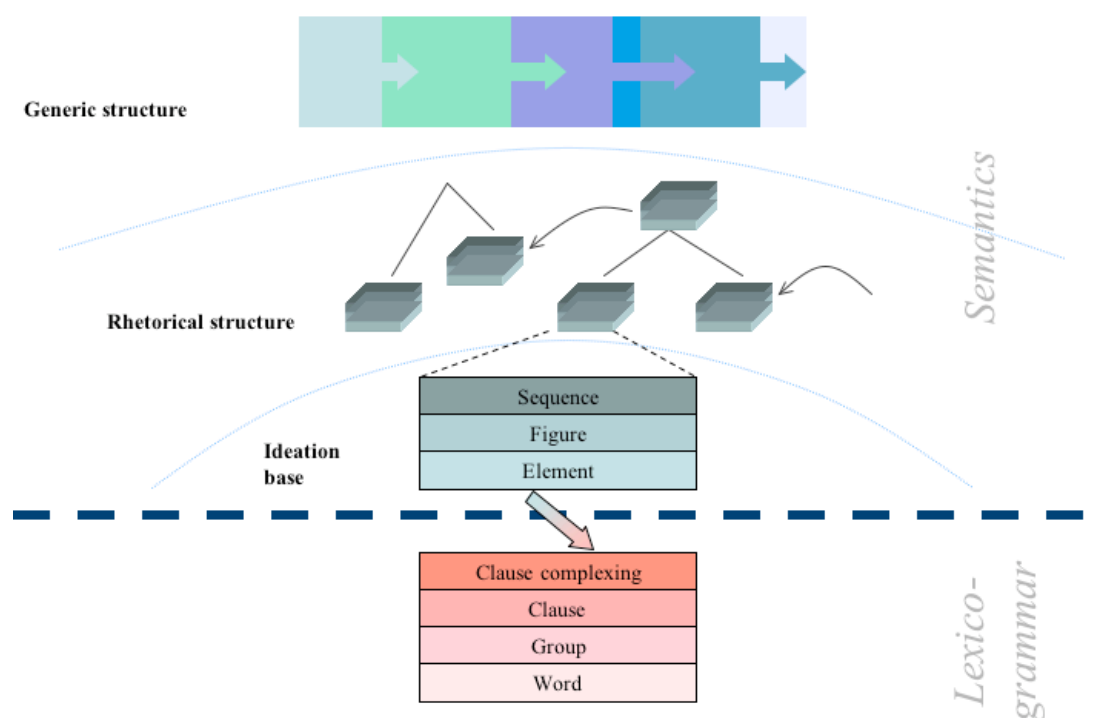
<sup>105</sup> See Halliday and Hasan (1989) p. for this, and for other examples.

of situation may be metafunctionally organised; this implies that semogenesis by the lexicogrammar has the potential to directly 'plug into' or modify the semiotic context of situation and its associated register. For this reason, it is preferable to maintain a complementarity of perspectives on the semantic stratum<sup>106</sup>. Proposing a 'unified model' of semantics at this stage may prematurely end full characterisations of the semantic stratum from different perspectives, however unintended this effect may be.

The characterisation of the semantic stratum is at this stage incomplete from both 'from below' and 'from above' perspectives. At this stage, we may refer to the 'from below' characterisation as being 'low-level' semantics, and, from above, 'high-level' semantics. We may go further, keeping in mind the stratal model of language, and describe them as 'clausally oriented' semantics and 'contextually oriented' semantics respectively. It is worth describing each of these in more detail as is relevant to the linguistic analysis in this thesis.

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<sup>106</sup> This is essentially the view adopted by Butt and Matthiessen (draft, 2000) p.229.



**Figure 4-3 General scheme of tools used in this thesis used to investigate clausally- and contextually-oriented semantic phenomena**

### **4.1.1 Clausally-oriented semantics: sequence / figure / element and the ideation base**

Halliday and Matthiessen's proposal of the 'ideation base' as a description of natural language semantics responsible for 'representing' experience is an example of a clausally-oriented description of the semantic stratum. It is clausally oriented for two reasons. Firstly, the ideation base is defined metafunctionally. It is intended that it should complement parallel descriptions of the 'interaction base' and the 'text base', and as such it is meant to be aligned with the ideational metafunction in the

lexicogrammar<sup>107</sup>. Secondly, most of the semantic units employed are co-terminous with the functional categories of lexicogrammar. This view is ultimately justified on the grounds of the natural relationship between semantics and lexicogrammar. But the implications of this view are that many of the semantic categories are homologous to those in the lexicogrammar. Thus we have element, figure and sequence as semantic homologues of group, clause and clause complex in the lexicogrammar respectively. It is proposed that in English, when the linguistic resources are deployed congruently, sequences are realised by clause complexes, figures by clauses, and elements by groups. In the process of grammatical metaphor, there is realignment of these realisational relationships– so for instance a sequence, instead of being realised by the clause complex, is realised by a single clause, or even a group. An example from *Diseases* from the Hippocratic corpus serves to illustrate the point.

Hippocratic Corpus *Diseases* 1.13 Ginetai d' empüos || kai ên apo tês kephalês  
phlegma hoi katarrhûêi es ton pleumona; ||| kai to men prôton hôs ta polla lanthanei  
katarrhëon... ||

Internal suppuration also occurs || if phlegm flows down from the head to the lung; ||| and at first, in the majority of cases, this flux escapes people's notice...||

The nominalisation *to katarrhëon* is an example of lexicogrammatical metaphor. It is construed more congruently by the previous clause. This clause is thought to realise a figure in the semantics by a clause in the lexicogrammar.

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<sup>107</sup> However, the notion of the metafunction is not confined to the lexicogrammar– it is implied that Field in the context of situation is in some way defined metafunctionally– see the previous discussion.

	kai ên	apo tês kephalês	phlegma hoi	katarrhûêi	es ton pleumona
Semantics	<i>Relator</i>	Element: circumstance: enhancing: location: spatial	Element: participant: thing: non- conscious: material: substance	Event: doing: happening	Element: circumstance enhancing: location: spatial
<i>Lexico-grammar</i>	Conjunction group	Circumstance: location: space	Actor / Medium	Process: material: dispositive + pseudo-effective	Circumstance : location: space

However the nominalisation shows that this same figure (or one agnate to it) in the semantics is now realised metaphorically as a nominal group or participant.

	kai men	to katarrhëon	prôton	hôs ta polla	lanthanei
<i>Semantics</i>	Relators	Figure: doing + non- projected: happening	Element: circumstance: enhancing: location: temporal	Element: circumstance : enhancing: manner: degree	Element: process: sensing
<i>Lexico-grammar</i>	Conjunction group	Phenomenon	Circumstance: location: time	Circumstance: manner: degree	Process: mental: perceptive

A more complex example is found in the *On Joints* text of the Hippocratic corpus.

Hippocratic Corpus *On Joints* 52 ...hoti oud' hugiainontes || dunantai || kai tên ignuên ekatnuein to arthron, || ên mê sunekatanusôsi kai to kata ton boubôna arthron, || plên ên mê panu anô äëirôsi ton poda, || houtô d' an dunainto; ||| ou toinun oude <<sungkamptein>> dunantai to kata tên ignuên arthron homoiôs, alla polu



khalepôteron, || ên mê sugkampôsî kai to kata ton boubôna arthron. ||| polla de kai  
alla kata to sôma toïautas adelphixias ekhei...||

that not even when people are in health || can they || extend the joint at the hamstrings, || unless they  
extend the joint at the groin as well with it, || and they lift their foot high off the ground– || then they  
might be able to do it; ||| and they also cannot <<flex>> the joint at the hamstrings as easily, but with  
much greater difficulty, || unless they flex the joint at the groin as well. ||| Many other places  
throughout the body have such associations... ||

In this example, we initially have a sequence at the level of semantics realised congruently, through an arrangement of conditional clause complexes. In all, these two clause complexes (both of which contain conditional enhancement) realise two sequences. In the last clause in this extract, there is the nominalisation *adelphixia* which, through being qualified with *toïautas*, refers anaphorically to either or both of the enhancing conditional sequences. But this nominalisation also construes this sequence in this final clause, and so again this is case of grammatical metaphor, where a sequence at the level of semantics is metaphorically, or incongruently, realised as a participant in a circumstantial relational process.

It can be seen that this formulation of a clausally- or metafunctionally-oriented semantics is designed to reflect the basis of the relationship between semantics and lexicogrammar, and to explain metaphorical processes. It is used in this thesis as a basis for 'low-level' semantic description, because it accounts well for the kind of grammatical metaphor that is seen in scientific English texts<sup>108</sup>, and builds the concept of semogenesis into its theoretical framework. This theory therefore provides the opportunity to see how the grammar of a text– so long as that grammar is characterised in functional terms– actively contributes to the meanings in a text, and to examine how those meanings are created. Therefore, in this thesis, the sequence / figure / element model of clausally-oriented semantics is used to explain any

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<sup>108</sup> Again, see Halliday (1998) for this discussion.

metaphorical processes that are semantically significant or relevant, and occurring within larger-scale semantic environments that are perhaps better described through a contextually-oriented semantic theory.

The major overall feature of this model of semantics is that although the organisation of the lexicogrammatical and semantic strata is homologous, there is the potential for usually congruent realisational relationships to shift. The consequence of this is that anything in the ideation base can theoretically be realised by any lexicogrammatical category. However, as Halliday has noted in his formulation of 'syndromes' of grammatical metaphor, for a given language (and perhaps particular varieties of genre and register) the shift tends to occur in only certain ways, such as from Figure to Element and Sequence to Figure<sup>109</sup>.

#### **4.1.2 Relational semantic structure: rhetorical structure theory**

The second model of clausally-oriented semantics that will be used in this thesis is that of rhetorical structure theory (RST), initially developed as part of an investigation into text comprehension and production in computational linguistics during the 1980's. It then subsequently became generalised to the overall task of text analysis in linguistics; the most widely known application was as one method of semantic analysis of a 'fund-raising text'<sup>110</sup>. It is proposed as a method of investigating text structure. As such, it therefore is a theory of text semantics. The categories of RST have been incrementally modified and expanded over the years<sup>111</sup>. In addition, there has been a gradual integration and reconciliation with larger linguistic theory. Firstly,

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<sup>109</sup> See Halliday (1998) p.213-221 and Halliday and Matthiessen (1999) p.250-255. In relation to sequences being realised by single clauses, Martin notes the Relator being realised by a relational process in 'logical metaphor'– see Martin (1992) p.168-170, 408-409 and Martin and Rose (2003) p.140-141.

<sup>110</sup> See Mann, Matthiessen et al. (1992) for an introduction to the theory and its application to the analysis of the text.

<sup>111</sup> For the table summarising these changes, see Stuart-Smith (2001) p.67.

RST has been related to the notion of the coordinated and subordinated clauses, an issue that is of interest in linguistics generally. In particular, this particular issue is argued to be a 'grammaticalisation' of relational discourse structure as described by RST<sup>112</sup>.

RHETORICAL RELATIONS			
1992	1988	1987	1986
Mann, Matthiessen & Thompson	Matthiessen & Thompson	Mann & Thompson	Mann & Thompson
Focus on effect and cause			
background	background	background	background
enablement	enablement	enablement	enablement
motivation	motivation	motivation	motivation
evidence		evidence	evidence
justify		justify	justification
antithesis	antithesis	antithesis	thesis-antithesis
concession	concession	concession	concession
Focus on effect and means			
circumstance	circumstance	circumstance	circumstance
solutionhood	solutionhood	solutionhood	solutionhood
elaboration	elaboration	elaboration	elaboration
means			
purpose	purpose	purpose	
condition	condition	condition	condition
otherwise		otherwise	
volitional cause	reason	volitional cause	reason
non-volitional cause		non-volitional cause	?cause
volitional result		volitional result	
non-volitional result		non-volitional result	
restatement		restatement	restatement
summary		summary	
interpretation		interpretation	
evaluation		evaluation	
Subordination			
sequence		sequence	sequence
contrast		contrast	
joint			

**Figure 4-4 A history of the development of RST categories– Stuart-Smith (2001) p.67**

Secondly, this view can be expanded to state that the relations involved in clause complexing in general– not just the issue of taxis but also of logico-semantic

<sup>112</sup> See Matthiessen and Thompson (1988).

relations– are the lexicogrammatical homologue of relational discourse structure.

Thus RST is a theory of semantic structure in text whose discourse categories inform lexicogrammatical resources. It is a theory that is in concord with the notion of the 'natural relationship' between semantics and lexicogrammar, and also with the notion that grammatical categories are a reflection of discourse categories<sup>113</sup>. Thus, as the RST model had developed, many of the rhetorical relations defined in the theory are homologous to those of clause complexing in the SFL model, to the point where there nucleus-satellite relations are seen in terms of 'axis', and the other meaning relations of rhetorical structure are characterisable in terms of logico-semantic relations<sup>114</sup>.

Furthermore, a metafunctional distinction of the RST categories has been introduced, where the various logico-semantic types are subcategorised as to whether the meaning relation has a function with respect to the construal of experience (external relations) or with respect to the kind of interaction and communication between speaker and audience<sup>115</sup>. This formulation of RST as developed by Matthiessen in Butt and Matthiessen (2000, draft) and Stuart-Smith (2001) is the framework that is applied to the analysis of texts in this thesis.

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<sup>113</sup> For this, see Hopper and Thompson (1984) which is a typological perspective on many grammatical categories and phenomena, among them nominals (including the spectrum from full 'marked' nominal elements to pronominals and ellipsis, and nominalisation), issues of word order, and serial verb constructions are a function of discourse phenomena, such as presupposed entities, the foregrounding and backgrounding of particular events relative to the text type, and textual development. For his discussion of 'dependent clauses' as construing 'background' events in discourse, see *ibid.*, p.736-744– this can be interpreted as the grammaticalisation of satellite elements of discourse structure.

<sup>114</sup> See Butt and Matthiessen (draft, 2000) p.254, 264. Also see Stuart-Smith (2001) p. 79, 81; the latter for the formulation of rhetorical relations in terms of 'logico-semantic type'.

<sup>115</sup> See *ibid.*

LOGICO-SEMANTIC TYPE			ORIENTATION	
			internal — interpersonal orientation — effect on Nucleus:  enacting Nucleus	external — experiential orientation — effect on Nucleus + Satellite:  construing sequence
projecting			'interpersonal projection': (speaker's) modalization/ modulation of nucleus [†]	projection [†]
expanding	elaborating			elaboration
		expository		restatement
		summative		summary
	extending	adversative		contrast [para]
		additive		joint [para]
		replacive	antithesis	
		alternative		disjunction [para]
	enhancing	conditional		condition otherwise
		concessive	concession	
		purposive		purpose solutionhood
		causal	evidence motivation justify	cause: volitional/ non-v result: volitional/ non-v
		temporal		sequence [para] circumstance
		means	enablement background	

**Figure 4-5 Logico-semantic relations underlying rhetorical structure theory–  
Matthiessen, in Butt and Matthiessen (draft, 2000)**

LOGICO-SEMANTIC TYPE			ORIENTATION			
			INTERNAL/ INTERPERSONAL <i>locus of effect: NUCLEUS enacting nucleus</i>	EFFECT OF RELATION	EXTERNAL/ EXPERIENTIAL <i>locus of effect: NUC+SAT constraining experience</i>	EFFECT OF RELATION
projecting			'interpersonal projection': (speaker's) modalisation/ modulation of nucleus		projection	
expanding	elaborating				elaboration	recognise
		expository			interpretation	recognise
		summative			restatement	recognise
					summary	recognise
	extending	adversative			[adversative]	
		additive			contrast (paratactic)	recognise
					[additive]	
		replacive	antithesis	readiness to accept	joint* (paratactic)	
		alternative			[disjunction]	
	enhancing	conditional			condition	recognise
					otherwise	recognise
		concessive	concession	readiness to accept		
		purposive			purpose	recognise
					rationale	recognise
		causal	evidence motivation justify	readiness to accept desire to perform readiness to accept	cause result	recognise recognise
		temporal	(presentational sequence)		sequence (paratactic)	recognise
					circumstance	
		means	enablers background	ability to perform ability to comprehend	[means]	recognise

Note: [] = relation not defined in Mann & Thompson (1987a)  
[See Appendix 2 for definition of *Disjunction*]  
\*joint is a schema without a relation in Mann & Thompson (1987)  
multinuclear relations underlined

relation modifiers: (+positive evaluation) } interpersonal  
(+negative evaluation) } appraisal

Effect of Relation: adapted from Mann & Thompson's descriptions

**Figure 4-6 Logico-semantic relations underlying rhetorical structure theory in Stuart-Smith (2001)**

The initial premise of the theory is that text structure is relational in character. One consequence of this viewpoint is that certain portions of a text are thought to be more 'nuclear' or more 'peripheral' with respect to the context in which the text is produced or received. Furthermore, there are various kinds of meaning relationships between these portions, and these relationships can be categorised in various ways. It is for these reasons that this theory is also a clausally-oriented semantics, though less so than is the case with the ideation base. There are two reasons why rhetorical structure theory can be thought of as clausally oriented. Firstly, it uses notions of centrality and

peripherality which can also be found amongst the various elements of the clause<sup>116</sup>. Secondly, it makes use of notions of taxis and 'semantic relations', which are also found between member clauses of the clause complex<sup>117</sup>. In short, rhetorical structure theory is the extension of aspects of the logical metafunction to the semantic stratum, and to the relationship between larger portions of text. At the same time, however, it is less clausally-oriented than is the sequence / figure / element model of semantics, because the units which are brought into explicit relation in RST are not necessarily co-terminous with clauses or clause complexes<sup>118</sup>. Furthermore, the theory can describe the relations between large portions of text; this is something that the sequence / figure / element model has difficulty in doing. Halliday and Matthiessen's model only deals with larger portions of text only in their experiential aspect, and insofar as there is potential for them to be realised metaphorically in lexicogrammatical units the size of the clause complex or smaller, and the consequent potential for them to be codified in the semantics as a sequence or smaller. Consider the following passage from Herodotus:

Herodotus 2.24-26 houtô ton hêlîon <<nenomika>> [ *toutôn*] aition ] einai.

In this way, <<I believe>> that it (the sun) is [responsible *for these things*] ]

The pronoun *toutôn* refers anaphorically to the whole series of processes in the preceding text. However, this anaphoric reference involves a metaphorical reconstrual of much of the preceding text (which contains many sequences, as well as having its own rhetorical structure) as a demonstrative pronoun within an adjectival

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<sup>116</sup> See Matthiessen (1995) p.197 . The notion can also be extended to the 'logical' structure of nominal and verbal groups– see Halliday (1994) p.191-196, 198-207 for this.

<sup>117</sup> For the concepts of taxis and logico-semantic relations in clause complexing, see Halliday (1994) p.216-221 and Matthiessen (1995).

<sup>118</sup> In RST, however, it is acknowledged that the concepts in the theory can be extended to the relationships between what is realised by single clauses. See Mann, Matthiessen et al. (1992) p.51 on the size of units to be related to each other in RST analyses.

group that functions as Attribute in a relational attributive clause. Thus, the whole preceding text has the potential to be codified in the semantics as an Element, for incorporation into subsequent figures and sequences. The sequence / figure / element model of semantics helps us to understand this process. However, it does not have any units larger than the Sequence which are characterised in terms of functional relationship.

It may be argued that the relationships between figures in the sequence may be describing the same phenomenon as what is described in RST, and so there is overlap between these theories. Indeed, this overlap is likely to be significant, because the concept of sequences allows for a given sequence to be realised by more than one clause complex in a text, depending on the nature of the text, particularly with those texts that describe a stepwise procedure<sup>119</sup>. However, the model of the sequence is metafunctionally specific, geared to the construal of experience. The relational categories underlying RST do not make a claim to be only confined to experiential semogenesis, but also reflect more generally how a text is organised and developed<sup>120</sup>; this also involves the construction of semantic relations which are interpersonally oriented. In effect, RST brings principles of relational organisation to bear on the semantic stratum (particularly from those proposed in the logical metafunction in the lexicogrammar), but the relationships so described are not confined to the one metafunction. Scientific texts might rely on both experiential and interpersonal factors to fulfil their purpose in context, and RST contains the appropriate range of categories to bring those out in the text analysis in this thesis. In particular, it was found to be useful in this thesis to make a distinction between those rhetorical relations which are interpersonally oriented and experientially oriented.

In other words, RST is a means of describing how the speaker or writer of a text organises semantic entities in relation to each other with respect to the context of

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<sup>119</sup> See Halliday and Matthiessen (1999) p.125.

<sup>120</sup> See Halliday and Matthiessen (1999) p.410.



situation in which the text is developed and / or received. The relational organisation of a text is not only seen as homologous to that found in the lexicogrammar, but is a 'fractal' manifestation of the tendency for the functions of linguistic phenomena to be relationally organised.

Therefore, in this thesis, RST is used as a method in investigating 'mid-level' semantics in a text. As the theory stands, it is quite capable of elucidating experiential relations between portions of a text, which is valuable in an analysis of how a text represents or construes a complex phenomenon. It does so by using categories that are relational in character, and have strong parallels with those of clause complexing relations in the lexicogrammar. However, at the same time, it also reveals how the information of a text is unfolded and is oriented to its audience, occurring within the environment of 'high-level' semantic phenomena such as generic stages.

### **4.1.3 Contextually-oriented semantics: generic structure potential**

So far we have described ways of looking at the semantic stratum that are in some way oriented towards its potential to be realised in the lexicogrammar. The 'sequence / figure / element' model of 'low-level' semantics is both clausally-oriented and ideationally oriented, and uses this as a basis to explain both grammatical and lexical metaphoric processes that occur in text. RST is presented as a theory to explain an intermediate level of the semantic stratum, using a relational model of text that interfaces between a clausally and metafunctionally specified semantics and a semantic model oriented to context. It is the latter– a contextually oriented characterisation of 'high-level' semantics– to which we will now turn.

The first task is to specify as precisely as possible where this stands in relation to the lower levels of the semantic stratum. The view adopted is essentially the same as

adopted in Butt's proposal of semantic cycles<sup>121</sup> – that lower-level semantic processes are operating with the environment of the higher-level ones. Again, to emphasise the nature of this 'environmental' relationship, within these higher-level processes, the lower-level ones operate to feed back into their environment, and therefore contribute to the character and nature of the higher-level units. For instance, if we consider Thucydides' account of the plague, we would see the meanings realised by each clause and clause complex and their elements. In turn, these semantic processes operate within the environment of the rhetorical structure of the passage, where the picture of the disease is unfolded through a relational configuration of portions of text; but the low-level semantics are essential to this, because there would be no rhetorical structure without them. In turn, the rhetorical structure operates within an overall schema which has particular stages, which may be termed 'generic structure'. In addition, the rhetorical structure subserves the overall text strategies that realise the Field, Tenor and Mode of the context of situation.


Generic structure potential is the theorisation of the most 'global' aspects of a text that directly realise a particular context of culture; in short, it provides a description of a given genre. The initial premise of generic structure is that it is a staged process, that a text recognised as being of a particular genre passes through relatively distinct phases. Hasan discusses the genre of the nursery tale to make this case<sup>122</sup>. The structure of a genre is thought to be comprised of various elements of structure in a logogenetic temporal sequence. These elements may be ordered or unordered; some are obligatory to the structure while others are not. There may be provision for some kinds of elements to be repeated or interspersed with one another. There are various written conventions to represent ordering, optionality, and recursion. In this way, the genre of a nursery tale, can be represented as follows:

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<sup>121</sup> See Butt and Matthiessen (draft, 2000) p.237.

<sup>122</sup> See Hasan (1996) for this discussion.

[(<Placement> ^) Initiating Event ^] Sequent Event ^ Final Event [^ (Finale) ·  
(Moral)]<sup>123</sup>



The generic structure potential (GSP) described in this way aims to set out the minimum possible kinds of structural units in a particular genre, based on an analysis of several different texts that are thought to belong to that genre. The GSP thus represents the system of choices of text phases that constitute a genre– the notion of choice is particularly evident in the notion of optionality and recursive choice.

The other feature that may be associated with a particular genre, but which is relatively difficult to represent in a system network, is that of iteration. It is not necessarily the case that a text of a particular genre unfolds in discrete stages, where one continuous portion of text comprises one generic stage. It may be the case that a given generic stage occurs more than once in various parts of the text, in alternation with other kinds of stage; this is particularly noted in service encounters<sup>124</sup>. This is essentially a variant of recursion. However, it is also possible that a given stage occurs only once in a text, but its realisation is 'dispersed' across non-consecutive portions of the text<sup>125</sup>.

The way in which the concept of the GSP is to be used in this thesis will differ from how it has been implemented by Hasan. The GSP will be developed for individual texts in this thesis, rather than developing a GSP for texts thought to be generically agnate. Thus the resultant GSP is more a description of the actual 'global' structure of a particular text, rather than being representative of a system underlying it. To

<sup>123</sup> Hasan (1996) p.54. The accompanying text describes the notation conventions used in the description of the structure potential.

<sup>124</sup> See Halliday and Hasan (1989) p.61, 63.

<sup>125</sup> This appears to be implicit in Hasan's discussion of GSP in Hasan (1996) p.59, 62 and 67, where there is mention of generic stages being discrete, implying that they may be non-discrete. In the case of the nursery tale, it is stated that Placement is 'interspersed within the realization of the Initiating Event' (ibid., p.65)

propose a comprehensive GSP intended to account for generically agnate texts, and to be in some way 'predictive' of generic structure, would be beyond the scope of this thesis, as it would require identification of a large number of generically agnate texts. Given the relatively 'fragmentary' nature of ancient Greek, this would be difficult to do in a systematic and representative way. This issue presents particular problems in ancient Greek, as most prose accounts of epidemic disease are subsequent to, and may be consciously influenced by or modelled on, Thucydides' account. Investigating this issue further is thought to be unhelpful to the concerns of this thesis, as we are only seeking a method of description of generic structure within which other semantic and metaphorical processes are operating.

#### **4.1.4 The application of generic structure to 'discontinuous' texts**

Another point of difference in the use of the GSP in this thesis is that a relatively discrete structure is being proposed for only a section of Thucydides' history. In Hasan's treatment of GSP, it is applied to relatively self-contained texts that constitute some kind of distinct social activity, such as the nursery tale or service exchanges. In contrast, the account of the plague is one particularly elaborated significant narrative event within the constellation of events that occur in the early years of the war between Athens and Sparta, and the period of the political influence of Pericles in Athens. This in turn is set in the overall scheme of Thucydides' history of narrating and interpreting historical events associated with the war in total. The use of the GSP in this selective way is justified on two accounts. Firstly, it is hard to justify Thucydides' *History* as being a continuously produced text. It was written as the events which it described unfolded, and various parts of the *History* were subjected to later revision and modification, as the relatively incomplete state of book 8 shows<sup>126</sup>; in this sense, Thucydides' work is no different to any other literary text. Secondly, the

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<sup>126</sup> For an account of this discontinuous production of the history, see

*History* as we have it appears in relatively discrete sections, each section comprising a number of events that are spatially, temporally, or causally connected. This appears to be the basis on which each book of the *History* is divided into sections. It is therefore justified to treat each of these sections as relatively discrete texts, and therefore propose a generic structure for each. A similar case can be mounted from the texts from Homer, Hesiod and Herodotus examined in this thesis.

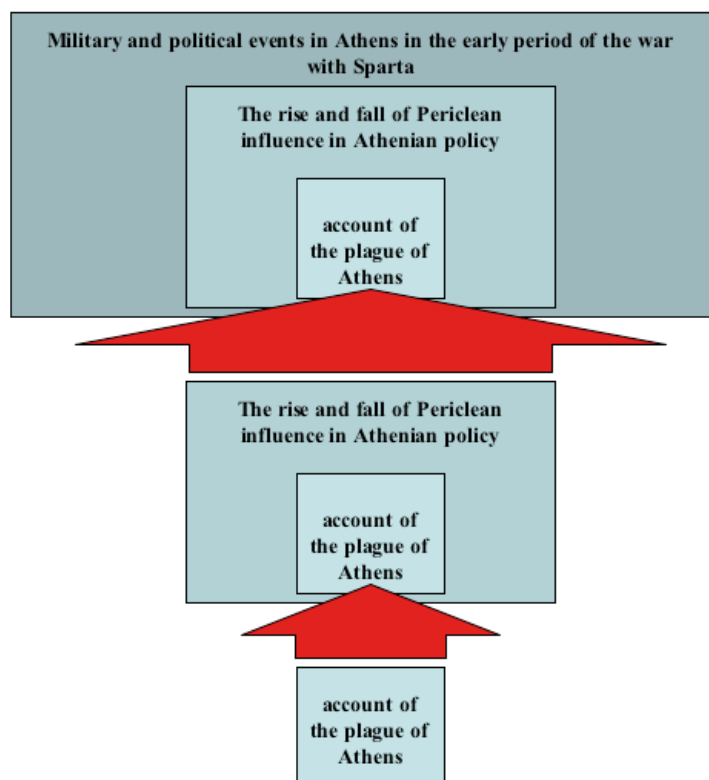
The account of the plague of Athens itself spans more than one section in book 2; but the events that comprise the account are closely connected with each other in terms of time, space and cause. The plague is also construed by Thucydides in book 2 as being the second part of a tripartite description of the history of Periclean Athens, where the plague is positioned as the major challenge to the Periclean political and cultural ethos, which is articulated previously in the response to the declaration of war and Pericles' funeral oration<sup>127</sup>. The plague is also the event in response to which Pericles defends his policies. Therefore, the account of the plague constitutes in effect a continuous text, a text that is meant to be read or received by an audience at one time. It is also intended to construe one of the major events in Periclean Athens as a whole. It is this that justifies taking the account as a single, relatively discrete text for which a single generic structure can be proposed. And it is the case that modern era classical scholarship, where the focus is on textual evaluation and criticism without any explicit recourse to linguistic tools, takes it as being a discrete account<sup>128</sup>. It also appears clear that ancient authors recognised the plague as being a discrete event marked out from the rest of Thucydides' historical narrative<sup>129</sup>.

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<sup>127</sup> For the pre-plague Periclean strategy, see Th.2.22-46. For Pericles' defence of this, which follows on from the Athenian population's psychological response to the plague, see Th.2.60-64. Th.2.65 outlines the people's response to this defence, and summarises and evaluates Pericles' contribution.

<sup>128</sup> This is reflected in text commentaries for Thucydides, such as Gomme (1962)

<sup>129</sup> Later ancient Greek historical authors, when describing epidemic disease that affects troops, describe symptoms with a remarkable similarity to those described by Thucydides, which means that they took it as a 'generic model' for describing epidemic disease in literary texts. Among the later Romans, in Seneca's adaptation of



**Figure 4-7 The overall scheme of book 2 in Thucydides' history**

Hence, in this thesis, the theory of the GSP is used as a way of describing the generic structure of the account of the plague of Athens, because this account can be seen as a discrete continuous text in terms of its reception. It is quite possible that this principle of usage can be extended to other large-scale texts in ancient Greek literature. The most obvious candidate for this kind of approach is Herodotus's history, where the historical narrative is punctuated with several kind of 'excursus', though what are seen as digressions may be actually part of a larger, intricate arrangement of parts<sup>130</sup>.

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the Oedipus legend, the plague that descends on Thebes is described in similar terms to those of the 'real-life' plague of Athens. See the later discussion of Thucydides in this thesis (Chapter 11).

<sup>130</sup> For a discussion of Herodotus' 'non-randomness' and of the possibility that there is some kind of 'design' to the overall organisation of the History, see Thomas (2000).

However, each of these parts may be taken as a continuous text, to which a particular generic structure can be assigned. In fact, this may be the case with the majority of Greek literature at least up until the classical period, because it may be the case that a large amount of it was composed so that sections could be publicly read. This is obviously the case with performance genres such as tragedy, comedy and rhetoric. However, with Herodotus and Thucydides, because their texts are very large, it made sense to organise it in terms of constituent texts which have a degree of independence from each other, and so could be read independently of each other. This organisation is implicit in the division of each book into sections in the case of both Herodotus' and Thucydides' works. This may indeed be a legacy from the Homeric epics, which are in effect an agglomeration of smaller independent texts that were orally composed and performed independently of each other<sup>131</sup>.

## **4.2 Language and context**

It is accepted that people in a speech community use a language in some kind of environment. However, to describe systematically what this environment is like and what relationship it has to the systems of a language is a major task. A language is used in a highly diverse range of situations and in a large variety of ways. Furthermore, this environment has a profound impact on how language systems are used; this is reflected in the previous emergence of pragmatics as a sub-field of linguistic study, in order to explain how language is used in context<sup>132</sup>. In addition, language use is itself part of or all of the environment of further instances of language

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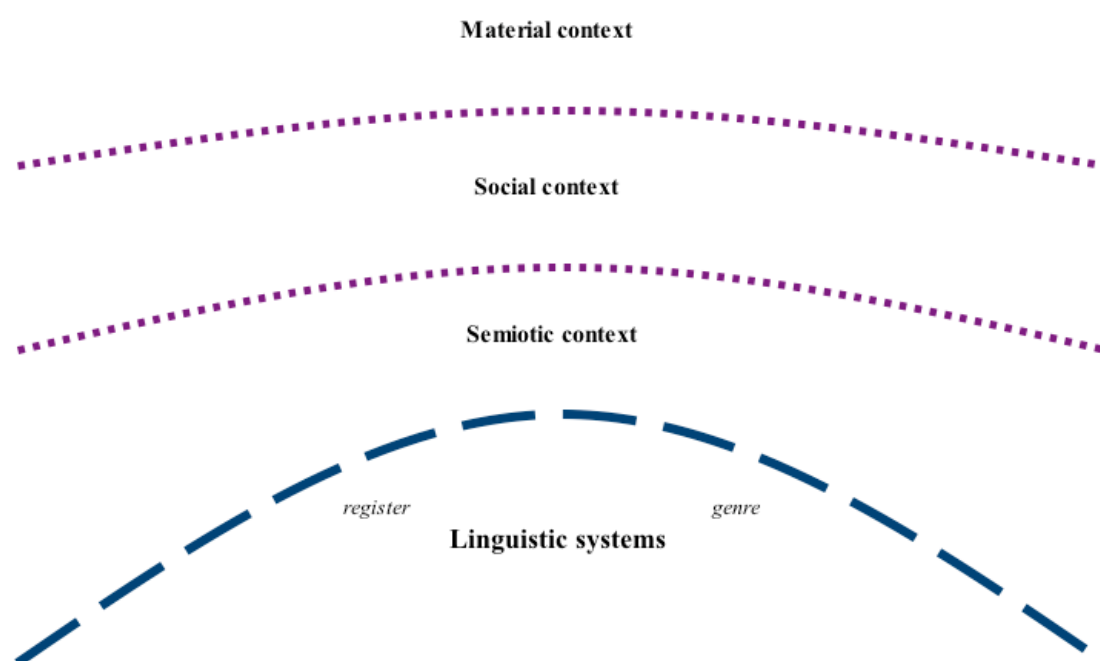
<sup>131</sup> For this, see Parry and Parry (1971).

<sup>132</sup> See Levinson (1983) p.5-21, and esp. p.21, which, despite Levinson's emphasis on truth-conditional semantics, states that relations between language and context are basic to most accounts of language understanding (that is, basic to most linguistic theories).

use. This environment in which language use occurs is commonly referred to as context.

### **4.2.1 Three orders of phenomena in context**

As it stands, the notion of 'context' is broad. It encompasses a whole range of factors of different orders, and so the preliminary stage of systematising context, so that it can be used with linguistic theories, is to determine what these orders are.



**Figure 4-8 Orders of phenomena in contexts associated with language systems**

Firstly, language is used in a physical environment, whether this be in an outdoor or indoor setting, in a particular location, or transmitted through electronic means (such as a computer display or telephonic equipment) or expressed in graphology on a sheet



of printed or handwritten paper. This physical environment can have two effects on the use of a language. Firstly it has significant effects on what is being talked about or negotiated– in a sense, the 'substance' of what is said. For instance, Thucydides, in writing the account of the plague, was in some way linguistically construing what was there in the physical environment around him– the perceptible manifestations and effects of the plague. This appears obvious enough, though it ought to be emphasised that this relationship is not as direct as it seems, since one's environment is construed through semiotic means. Secondly, it has great bearing on the actual means of languaging– whether it is spoken or written, whether the use of language occurs in real time or is produced for reception at a later date with intermediate stages of 'editing', or indeed whether the user of the language is human or whether language is produced by some kind of artificial computing device. Such factors put constraints and afford possibilities on the means of languaging. For instance, the linguistic differences between spoken and written language are well documented; the written varieties tend to be more 'lexically dense' (that is, have more lexical items on average per clause), whereas spoken varieties tend to comprise more intricate arrangements of clauses, both in terms of the number of clauses per clause complex and the tactic and logico-semantic relationships between the clauses<sup>133</sup>.

The second order of phenomena involved in context is that of social relationships. Languaging goes on between and among people, but these people occupy certain positions, and their corresponding social roles and functions, within the network of social relationships that go to make up a speech community. Each speaker of a language, in any instance of its use, has to have regard for the relative social positions of him / herself and their audience. This has bearing on what kinds of things are talked about, the kind of semiosis into which they are transformed, and how any linguistic action is negotiated or developed by the interactants. For example, a doctor who is an author of a text in the Hippocratic corpus may write that text either to put forward a view to other colleagues of similar professional status, or to teach and

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<sup>133</sup> See Halliday (1989) for an in-depth exploration of these differences.

inform those who are being apprenticed into the profession. Not only can the character of the languaging be a function of the social position of the interactants; it can also be a function of the particular activity in which people receiving a text might be engaged<sup>134</sup>. For instance, some of the texts of the Hippocratic corpus are in relatively brief 'note' form; this may have been to facilitate easy consultation in a doctor's practice as that doctor is treating a patient<sup>135</sup>. This is in contrast to the extended theoretical treatises such as *On the sacred disease* which may be read by a doctor (or other people with an interest in medical matters) when they are at remove from real-time clinical practice.

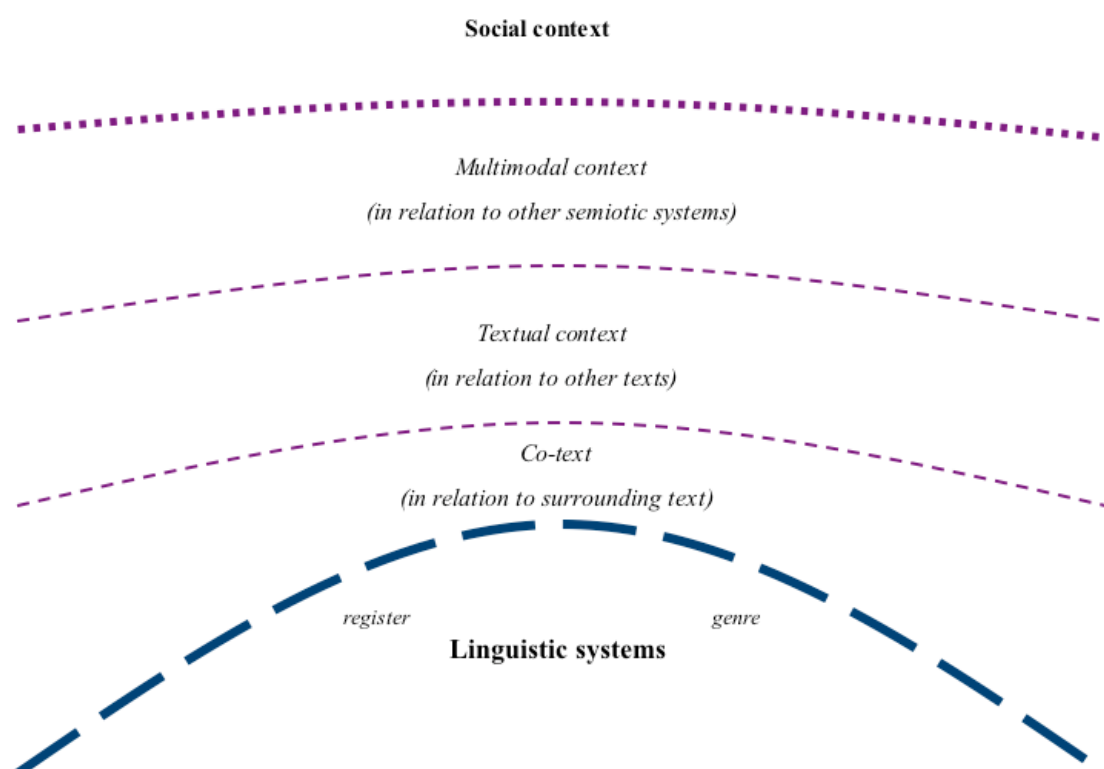
The third order of phenomena is semiotic, that of various meaning-making activities; a language is the most studied kind of semiotic activity, but other kinds of semiotic activity may also be occurring at the time of languaging; an example of this would be any Greek tragic or comic play where there is a complex interplay between the semiotics of the Greek language and that of the physical set, costumes, arrangement of people on the stage, bodily gestures, and the like. However of more concern to this thesis is the context of other linguistic semiotic activity. This is immediately apparent in the notion of 'co-text'; logogenetically prior text instances provide the linguistic semiotic context for any subsequent linguistic semiosis. This co-text is what is most apparent to us in reading ancient Greek texts, and from the modern reader's perspective, this is the most immediate semiotic context available to use for scrutiny. However, one should also bear in mind that these texts were produced with a view to being received in the context of other semiotic activities, such as sharing information

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<sup>134</sup> However, these two kinds of effects of social positioning may be related by the notion of instantiation, if one is prepared to accept that the social action of a particular individual is really an instantiation of that individual's systems of social action; this system can be taken as equivalent to an individual's social position in the speech community, if 'position' is taken as the repertoire of social roles associated with that individual. This assumes that social activity can be systemically organised, using the notion of the system as 'metatheory' for the social, as well as the semiotic or linguistic, order of phenomena.

<sup>135</sup> This particular feature of some of the Hippocratic texts is commented on by Jouanna (1999).

with medically trained colleagues, teaching medical apprentices, propounding and arguing a view to those who are oriented more generally to intellectual speculation and theorisation, using texts as an information source to inform a patient of the rationale of the diagnosis and treatment of disease, and so on. Furthermore, any one text may play a role in one or more of these activities.



**Figure 4-9 Levels of semiotic context**

Thus we have three kinds of semiotic context for any text instance. Firstly, there is the co-text, which unfolds as the text unfolds, in which any subsequent text production and reception is grounded. Secondly, there is the overall linguistic semiotic activity or activities that the text as a whole constitutes. Thirdly, there is the context of other modes of semiosis, as well as linguistic semiosis, that co-occur with the production of a text instance. The interaction of this third kind of context with linguistic activity is

properly referred to as 'multimodal semiotics'; since we cannot be sure about what other kinds of semiosis accompany the production and reception of Greek texts, we will leave this issue aside, and concentrate on the first two kinds. These first two kinds of semiotic context will eventually be linked to the notions of 'context of situation' and 'context of culture'; however, before discussing these issues, it is important to make clear that when we engage in systematising context with respect to linguistic systems, the primary task is to systematise semiotic context, rather than other kinds of context.

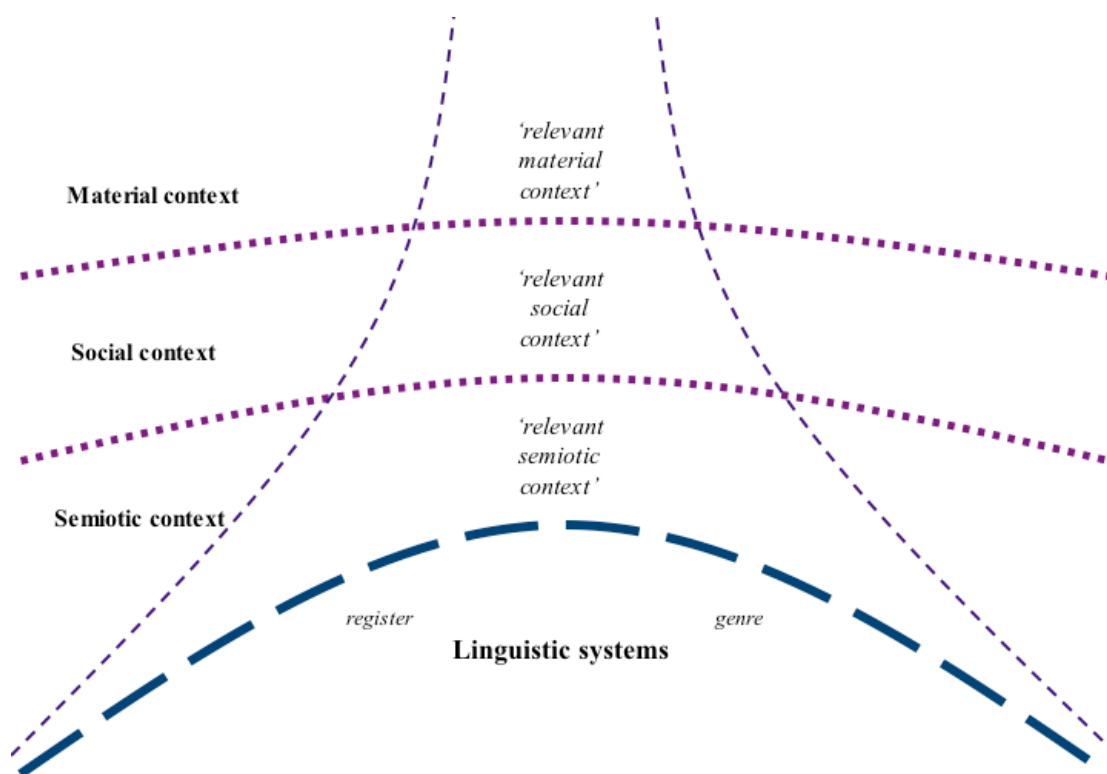
#### **4.2.2 Systematising semiotic context**

It might be objected that, in only concentrating on semiotic activities in systematising context, we are neglecting social relationships and material environments that quite obviously have a bearing on the current semiotic activity. However, the main argument against this objection is, in summary, this: systematising semiotic context will 'automatically' take into account these social and physical factors, because the relevant social and material environment only becomes known through semiosis. This argument will be explained as follows.

Firstly, the material environment does not make an unmediated impact on semiotic activity. Whoever engages in semiosis in a given physical environment can only have their semiotic patterns and choices influenced when material aspects of the environment are brought into 'semiotic awareness'. That is, there are some aspects of the material environment that come into awareness *and* have the potential to alter the course of a semiotic activity. For instance, a low background of ambient noise (such as on a quiet street) does not come into semiotic awareness during ordinary casual conversation; however, a high level of noise (such as on a busy street) does so, because it affects semiotic choices such as voice volume and articulation, the potential need to repeat information, and even might 'cut short' a conversation (meaning, conversations that take place in high levels of ambient noise are more likely to be

shorter). A would-be Hippocratic doctor studying a medical text would be semiotically unaware that it is raining outside the place where he (because medical apprentices at the time were exclusively male) is reading because it does not affect the semiotic choices involved in reading the text; but he would be aware of it if he was reading outside and it began to rain, because he would have to (temporarily) cut short his semiotic activity and move to a new location to (perhaps) resume it. In short, only certain elements of the material environment (and certainly not all) become known to those behaving semiotically because they are semiotically significant. To be semiotically significant, these material features must be construed semiotically at some point prior to or during the activity. Thus, in the ideal situation, there is potential for the systematisation of the semiotic context to also reveal relevant (that is, semiotically significant) aspects of the physical setting.

Again, the relevant social interactions and relationships have a bearing on linguistic activity only because they come into semiotic awareness. This is especially apparent when there might be two or more different kinds of social relationship between interactants with the potential for two or different sets of social activity to occur between them. Such a situation might occur when one is trying to order a drink from someone in a café, but the two people might also be acquainted with each other because they know each other through mutual friends. There might be some acknowledgement of each other and establishing 'how they know each other', where this latter kind of social relationship comes into semiotic awareness; the former is 'backgrounded' temporarily. However, when it comes to ordering the drink, a 'service encounter' is likely to occur, where the customer-waiter social relationship and its attendant kinds of social interaction are brought into semiotic awareness. So again, the relevant social relationships are semiotically construed in the linguistic exchange, and so a systematisation of semiotic contexts is likely to reveal them in some way, by showing that the attendant semantic choices covertly reflect them.



**Figure 4-10 Aspects of context with most direct bearing on the production or reception of a text**

Furthermore, as the above example shows, many social activities can only be carried out through linguistic or semiotic means, and so the linguistic activity is constitutive (that is, necessary and sufficient) of the social activity. This is further reason to believe that semiotic context not only reflects human social activity and organisation, but actually underpins them.

Thus, in trying to provide a systematic account of context in relation to linguistic systems, the primary aim is to describe in a coherent, unified account (by whatever theoretical means) the semiotic context, even though there are technically several orders of phenomena in the environment in which one behaves linguistically. Such a description will take into account the *relevant* material and social characteristics of

that environment. By the term 'relevant', one takes it to mean those characteristics of the context that influence the kinds and probabilities of choice in linguistic systems. It is taken that the various kinds of concepts described below to do with 'context' are to do with semiotic context. It is not overtly said so in the literature, but it appears that this is meant to be the case. For instance, in the discussion of the context of the dialogue between the one year old child Nigel and his parent<sup>136</sup>, each of the features of the context are semiotic, in the sense that each of them directly influences what kinds of meanings are selected in the dialogue. These features include what might be counted as material and social factors; but these factors are relevant to linguistic selections because they are brought into semiotic awareness and thereby are manifested in selection patterns in linguistic systems. This is perhaps not surprising, since the description of the context is built out of the available text. So, for describing context with respect to linguistic systems, we are describing those features of the language production and / or reception environment that are construed semiotically in some way.

### **4.2.3 The context of situation: Field, Tenor, Mode**

The semiotic context that surrounds any instance of text is referred to as the 'context of situation'. Not only does it simply 'surround' a text; it also has a direct relationship with the choices made in linguistic systems to produce that text. This was developed initially by the anthropologist Bronislaw Malinowski in his investigation of the culture of the Trobriand Islands where he needed a means to describe the situation in which a text was used to people not there to observe the situation, in order that the text could be fully understood. He eventually realised that this not only held for texts in 'exotic' languages, but for texts in all languages. This view was then further

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<sup>136</sup> See Halliday and Hasan (1989) p.34-36. This discussion is with reference to the text of the dialogue shown on p.30, where Nigel is attempting various experiments with the toy railway line he is setting up, and asking for his father to pass to him various components of the train set in order to further the activity.

developed by the British linguist J.R. Firth who saw meaning as 'function in context' and sought to integrate this into a general linguistic theory<sup>137</sup>.

It could be said that the descriptions of context produced in this way are simply 'decodings' of 'what was going on' at the time of text production. This is, in a sense, true. However, it is presumed that at least part of the context so described preceded the production of the text, and so knowing the features of the context 'predicts' in at least a general way how the text will unfold. This is thought to be at least part of the basis of mutual understanding and communication<sup>138</sup>.

This view, however, should be carefully qualified. One should in no way assume that the features of the context of situation were the same at the beginning of the unfolding of a text as they are when the production of the text instance is complete. This is for the reason as has been described above– any linguistic activity becomes part of the context of situation for subsequent linguistic activity. So, the way in which one can pick out the relevant situational features prior to text production and / or reception is to only include the minimum possible number of those that are common to all parts of the text.

Once this is done, one can group the contextual features of the situation in which a given text is produced. In systemic-functional linguistics, this grouping into Field, Tenor and Mode closely follows that proposed by J.R. Firth, but also draws on the original observations by Malinowski and later investigators such as Dell Hymes<sup>139</sup>. This grouping also has strong parallels with the metafunctional organisation of the lexicogrammar; however, this issue will be discussed later. The Field refers to the group of contextual features that specify what kind of social-semiotic activity is going on; these features should ideally specify Field to the point where the kind of social-

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<sup>137</sup> See Halliday and Hasan (1989) p.5-9.

<sup>138</sup> See Halliday and Hasan (1989) p.9-10.

<sup>139</sup> See Halliday and Hasan (1989) p.5-10.



semiotic activity has unique characteristics to that situation, such as who is participating in the social activity and what is / are the focus / foci of the activity. The features belonging to Tenor specify the kind of social relationship between the interactants that is applicable and relevant to the social-semiotic activity being conducted at that time; in other words, the social relationship enacted logogenetically. This can be specified in terms of social distance and the social roles that each interactant conducts. The features of Mode specify how the social activity is 'packaged'; in particular, this describes whether the linguistic activity is spoken or written (channel) and whether the text assumes a form which is conventionally associated with the channel (medium), and the overall patterns of how the information in the text is organised (such as a particular rhetorical style), and how certain pieces of information in the text are related to and develop from each other.

One of the important features of this formulation is its tripartite character, and the similarity of these to the metafunctions in the lexicogrammar. This is not altogether surprising– Firth's modelling of the context of situation mentions features such as actors in the social activity, and kinds of the social activity itself, which strongly mirror the features of the ideational and interpersonal metafunctions respectively. In the description of Field, Tenor and Mode given above, one can see the strong parallels with the ideational, interpersonal and textual metafunctions respectively. And so, through this theoretical formulation, another claim is made on the relative organisation of linguistic strata– namely, that each clause of wording and meaning in a text is a clausal model of the context of situation. The functional configuration of each clause is therefore thought to reflect at least some of the elements of the context of situation. To some extent, this claim is supported by the surprising amount of information about the context of situation that can be gathered from studying the functional organisation of one clause complex in a text.

Herodotus 6.99 ên gar su gnomêi têi emêi prosthêi, || esti toi patris te eleutherê || kai  
polis prôtê tôn en têi Helladi

For if you side with my opinion, || our fatherland is free || and our city the foremost in Greece...

We can tell from the first clause in this complex that there is a speaker and an addressee. The process of this clause– of siding with an opinion put forward previously by the speaker, in effect a metaphor for being persuaded, shows that the speaker is engaged in the process of persuasion. The focus of the clause complexing is a forecasting conditional clause complex– 'if x happens, then y will happen' which suggests that the speaker is situating the act of persuasion within the framework of presenting alternative courses of action and outcomes. The processes that are brought into relation show that the consequence of the action in the protasis results in a change to an entire state in its geopolitical position; thus the course of action being proposed or discussed must be political or military in nature, and the moment significant. If we keep in mind that the interaction is between speaker and addressee, the addressee must have significant influence to put the political or military course of action into place; it is probable that the speaker does not have such authority, but, given that he speaks to the addressee directly, he has positioned himself or has been positioned as a credible and trustworthy source of advice. And so, we can try to set out the context of situation as follows:

Field:

1. Speaker persuading addressee to particular course of action.
2. Discussion pertains to military or political strategy to achieve favourable outcome for both persons' native city state in the context of Greece as a whole.

Tenor:

1. Addressee in position of great influence to determine particular course of military or political action.

2. Speaker is positioned as someone who would have significant influence with the addressee, and can be thought by the addressee to be a trustworthy or credible source of advice.
3. Both are engaged in some way with military or political activities; therefore it is likely that both of them are colleagues in the same line of work.

Mode:

1. Written channel; perhaps spoken medium (although one cannot be sure).
2. Rhetorical style aimed at persuasion; course of action presented as potential contingency for probable outcome, therefore argument constructed as selecting one out of a range of possible courses of action and expect other courses of action to be presented antithetically.
3. Possibility that there are stages to the argument; the current text does not stand as a self-sufficient argument, and so possibly earlier sections of the argument set out and describe the potential courses of action.

This is in fact what is happening in this text, which is part of the speech of the general Miltiades trying to persuade the polemarch Callimachus (who has the casting vote in deciding the military strategy of an army) to a particular course of action just before the battle of Marathon. We have been able to infer from just the meaning and wording of a single clause complex much of this information. Therefore, it must be that there is something in the lexicogrammatical and semantic configuration of the clause that 'models' the context of situation as a whole.

This is an assumption that many ancient world studies make, as they try to determine the possible origin of a fragmentary text; various features of the fragment may allow a 'reconstruction' of the nature of the co-text and other features of the context, which then allows one to determine whether the fragment is part of another text that is known from another source. This is a methodology that has served ancient world studies well. But the important point is that these techniques may very well rest on a

property inherent to any text– that the functional organisation each clause and clause complex embodies the characteristics of the semiotic context in which the text is located.

This linkage between the context of situation, semantics, and lexicogrammar in a text assumes that the stratum of semantics is, in part also metafunctionally organised along the same principles as the lexicogrammar. Certainly, a clausally-oriented semantics such as the ideation base<sup>140</sup> (which presumes the existence of a 'interpersonal base' and a 'textual base', both of which are yet to be characterised) is also oriented to lexicogrammatical metafunction, because of the 'natural' relationship that is thought to hold between the strata of semantics and lexicogrammar. But, as has been mentioned before, semantics can also be characterised from above, to determine the function of these clausally-oriented semantic entities. However, there is no claim that this 'from above' systematisation of the semantic stratum is also metafunctionally organised along the same principles of the lexicogrammar; the theory as it stands leaves this question open. The claim that is made here is that semiotic situations, and the semantic and lexicogrammatical selections that realise them, are most probably organised around the core metafunctional processes of construing experiences, enacting social exchanges, and enabling their combination into information organised in a certain way, and the potential for further information to be developed in particular ways. Metafunctions are therefore oriented to instances of language use. This is the view embodied in what is called the 'context-metafunction hookup hypothesis'<sup>141</sup>.

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<sup>140</sup> See Halliday and Matthiessen (1999).

<sup>141</sup> See Halliday and Hasan (1989) p.45-46 for this view, where the metafunctional components of a text– that is, a semantic unit that has a function in a context– are linked to the Field / Tenor / Mode configuration of the context of situation. This view is discussed in Martin (1992) p.493-494; but see note 2 (ibid., p.588) which shows that there no simple one-to-one mapping of metafunction to context of situation, particularly in regard to the ideational metafunction, where the logical submetafunction is related to aspects of Mode. This relationship between context of situation and metafunction is also implicit in Painter (1999) p.57-60.

#### **4.2.4 Abstracting away from the context of situation**

We have so far described the context of situation as it relates to specific situations in which specific texts are located. However, it can be said that many texts share similar features of their respective contexts of situation. For instance, if we were to view the narratives of the battle of Marathon and the battle of Salamis as relatively discrete texts within the whole of his history, we can say that they share similar situational features. In both texts, Herodotus informs his readership of the sequence of military manoeuvres on both sides and the outcome of each manoeuvre, and of the final outcome. From the above argument, we expect that similar semantic and lexicogrammatical choices are made in both texts, and indeed this is the case.

Herodotus 6.113 (the battle of Marathon)

kai to men meson tou stratopedou enikôn hoi barbaroi, têi Persai te autoi kai Sakai etetakhato; kata toutou men dê enikôn hoi barbaroi, kai rhêxantes edîôkon es ton mesogaïan, to de keras hekateron enikôn Athênaïoi te kai Plataïêes.

...and in the middle of the army the barbarians were winning, where the Persians and the Sakians have been drawn up; indeed at this place the barbarians were winning, and, after breaking the Greeks' ranks, pursued them into the interior– but on each wing the Athenians and Plataians were winning.

Herodotus 8.84 (the battle of Salamis)

enthauta ânêgon tas nêas hapasas Hellênes, anagomenoisi de sphî autika epekêato hoi barbaroi. hoi men dê alloi Hellênes epi prumnên anakroûonto kai ôkellon tas nêas, Ameiniês de Pallêneus ânêr Athênaïos exanachtheis nêi emballei: sumplakeisês de tês nêos kai ou dunamenôn apallagênai, houtô dê hoi alloi Ameiniêi bôêthêontes sunemisgon.

Then the Greeks put all of their ships out to sea, and, as they were going out, the Persians set upon them at once. The rest of the Greeks began to back water and were trying to beach their ships, but Ameinias, an Athenian man of Pallene, charged at and rammed a ship; when his ship became stuck, and he was not able to free it up, the other Greeks came to Ameinias' assistance, and so joined battle.

It therefore follows that one might be able to look at the common situational features of each battle and thus propose the minimum number of features that comprise a 'situation type' such as that of battle. These minimal situational features would hold across all texts that are to do with describing battles. In doing so, we are abstracting away from individual texts and individual situations and proposing a situation type for a text type. In this case we would propose that military personnel engaged in tactical movements and fighting is a generalised situation type for a text type that might be termed 'battle narrative'.

But we can abstract even further away from this situation and text type. The situation type of the battle can be thought of as having features in common with other events in the history that result in some altered military or political state or some kind of 'result' or endpoint. In the case of Herodotus and Thucydides, this may be other kinds of warfare other than the land battle, such as naval warfare (such as the battle of Salamis in book 8 of Herodotus<sup>142</sup>, or the naval battle at Syracuse in book 7 of Thucydides<sup>143</sup>) or the positioning and manipulation of troop contingents without actual formal battle (such as the fortification of Deceleia in book 7 of Thucydides<sup>144</sup>, or the Spartan forces laying waste to land in Attika in book 2<sup>145</sup>) and other events where there is no actual military or tactical action in the true sense, but concerns the state of military troops and their function in achieving a particular aim (such as the enslavement of the remainder of the Athenian troops by the forces allied against them in Sicily in

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<sup>142</sup> Herodotus 8.84-92.

<sup>143</sup> Thucydides 7.60, 65, 70-71.

<sup>144</sup> Thucydides 7.19.

<sup>145</sup> Thucydides 2.57-58.

Thucydides book 7<sup>146</sup>). In each of these situations, the author is attempting to portray to the reader a series of events in past time that concern military troops that start out with particular roles and aims. By doing so, he aims to show through these events whether they achieve the outcome of what they were supposed to do, and how the actual outcome came about. Thus we may have an even more abstracted situation type of 'historical event'. This is associated with a similarly abstracted text type of 'historical event narrative'.

In abstracting away in this manner, we realise that we are making less specific statements about particular situations and the texts in which they are located. Instead, two things are happening in this abstracting move in the theory. Firstly, in proceeding to more and more general types of situation, we are encompassing more and more of general human experience in a speech community. In this particular example, we move from the situation of a specific battle, to that of battles in general, and then to historical events (as in those kinds of events that are appropriate for construal in discourses to do with history). We can then abstract even further and talk about the situation of describing past events of any kind, and in doing so we are now talking about a large part of human activity and experience. The features of the corresponding text type are similarly abstracted and enlarged in scope, to what might be described as 'narrative'– that is, there are a few very general principles of organisation of a text that engages in narrative activity. We therefore approach the position where we are able to conceptualise principles of text organisation that are inherent to a substantial number of human social activities. We are then in a position to describe 'the ways of going about semiotic activity' in a speech community– what might be termed the semiotic 'culture' of that community.

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<sup>146</sup> Thucydides 7.86-87.

#### **4.2.5 The context of culture**

This accords largely with the notion of the 'context of culture', originally proposed by Malinowski and part of the theory of context associated with systemic-functional linguistics. Malinowski initially proposed that there were two kinds of context– that of the situation and that of the culture<sup>147</sup>– where the latter acts as a semiotic 'background' to individual contexts of situation. For example, if there is any instance of a Hippocratic doctor being consulted by a patient for diagnosis and treatment of their malady, it is done so against the background of a professional class of doctors whose skills are at the disposal of whosoever requires them in a community, and the cultural practice of going to see a doctor because of illness. Similarly, Herodotus and Thucydides write their individual historical accounts against the background of the cultural practice of writing and reading history, with the aim of keeping a record of significant events in a community's life, and to provide insight into the causes and outcomes of those events<sup>148</sup>. But we have argued above that situations are instantiations of culture. So we see the cultural practice of seeing doctors and writing history as being systems in the community which can be instantiated to result in culturally guided, but specific and individual semiotic situations which are realised by individual texts. This is inherent in the view that culture evolves or is constructed by the use of language in specific situations<sup>149</sup>. Since the context of situation and the context of culture are related to each other by the relationship of instantiation, viewing a text in its situation is viewing it from the perspective of the instance, and viewing it in its cultural surround is to view it from the point of view of the system.

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<sup>147</sup> See Halliday and Hasan (1989) p.6-7.

<sup>148</sup> The opening statements by Thucydides and Herodotus in their respective histories (1.1 in each history) locate their practices explicitly and squarely within this kind of historical tradition, which essentially goes back to the Homeric epics. This argument is modelled on that made for classroom educational practice in Halliday and Hasan (1989) p.46.

<sup>149</sup> See Halliday and Hasan (1989) p.55.



#### **4.2.6 Register and genre**

Individual texts are often said to belong to a particular register or particular genre. As it stands, this statement merely asserts that a text takes on particular semiotic configurations in keeping with their context, but it is unclear what particular aspects of that configuration are linked to what aspects of its context.

In the systemic-functional view, any text, and text in general, is primarily a configuration of meaning that has a function or functions in semiotic context<sup>150</sup>. These meanings are, of course, realised in lexicogrammatical, then phonological, systems of the language; however, the essential notion is that a text is a semantic entity. Secondly, a text can be thought to have a structure– that is, the meanings of a text are configured such that they have particular relationships with each other, and these relationships are at least part of the basis of the unity of a given text<sup>151</sup>.

However, because text is the realisation of context, text structure can be viewed from the point of view of the situation, or from the point of view of the culture. Register is therefore text structure viewed from the point of view of the context of situation. This is so because register is thought to be a semantic entity that is associated with a particular situational configuration<sup>152</sup>. Thus, abstracting away from specific texts, we can talk about registral types that correspond to situational types.

Similarly, genre is text structure described with respect to the context of culture. Here, a text is viewed as a staged process, reflecting, and realising, the staged nature

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<sup>150</sup> See Halliday and Hasan (1989) p.10. This is in turn related to the Firthian view of meaning as function in context– see p.8.

<sup>151</sup> See Halliday and Hasan (1989) p.53. This is also part of the claim that is used to support rhetorical structure theory as a tool for the investigation of text unity and structure in Mann and Thompson (1992)

<sup>152</sup> See Halliday and Hasan (1989) p.37-38.

of cultural activity<sup>153</sup>. These stages are intended to reflect on the relatively ordered manner in which cultural processes proceed, based on a core of obligatory elements with a range of optional ones, and where these elements may or may not be sequentially ordered.

Thus a text may be dually characterised in terms of generic or registral features. One can therefore expect that any text will not only have features unique to itself (because no two situations are exactly alike, or at least cannot be assumed to be) but will also reflect choices made in the systems of culture. The relationship of situation to culture is that of instance to system, register and genre being their respective realisations at the stratum of semantics.

#### **4.2.7 Register as an instantiation of culture**

The notion of instantiation is deeply involved with the functional linguistic model of any language. Firstly, as has been explained above, it is inherent to the nature of a system— a system is there to be instantiated, and is developed and maintained by instantiation. It is crucial to the process of language use— it provides a means of understanding how complex, abstract cognitive operations are 'transformed', as it were, into relatively concrete communicative and social practices. However, it is also involved in the theoretical formulation of certain concepts in systemic-functional linguistics, particularly in the formulation of the concept of context.

As mentioned before, context stands in a realisational relationship to semantics— the semantic systems of a language realise context. Secondly, context can be characterised in one of two ways. The first is what is called the context of situation— that is, the material, social, and semiotic setting for any instance of linguistic

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<sup>153</sup> For an in-depth exploration of genre, see Halliday and Hasan (1989) p.52-68 and Hasan (1996).

behaviour; this includes any linguistic behaviour immediately preceding and surrounding a given moment in that situation. This phenomenon is often glossed under the term of 'register'. The second way in which context can be characterised is as the context of culture– a term originally devised by Malinowski but more recently taken up by systemic-functional linguistics, along with contributions from Bühler and Firth, among others<sup>154</sup>. This is essentially the set of ways which a given speech community has to negotiate its social and semiotic activities; these are glossed under the term of 'genres'. Genres may include activities such as recounting events, telling stories, carrying out a financial transaction at a shop, and so on.

Therefore we have two ways of characterising context in relation to linguistic systems. It is initially tempting to regard them as complementary perspectives on context– to view context as either a material, social and semiotic situation, or as a social and semiotic activity. However, more recently there has emerged the view that situation is an instantiation of culture, and this particular view is worth examining.

This hypothesis requires that culture can be organised and theorised in systemic terms– that is, people in a community can choose what kind of social and semiotic activity they wish to engage in, and then specify what features of that activity or genre they want to implement among paradigmatically related sets of options. In the work done by Hasan on generic structure potential in English nursery stories<sup>155</sup>, it becomes clear that there are various elements of the genre that are optional or compulsory (such as Finale) and there is facility for recursive phenomena (such as Sequent Event). This seems to strongly suggest that the features of a genre, and of genres in general, are systemically organised. As such, this means that systems of genre can be instantiated.

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<sup>154</sup> See Halliday and Hasan (1989) p.5-9 which outlines the intellectual history of the 'context of culture' and the 'context of situation' through the anthropological and linguistic traditions.

<sup>155</sup> See Hasan (1996).

If we instantiate, say, the generic system of the nursery story, we end up specifying the broad framework of a given story, elements of which can then be further elaborated or specified. As this is done we have a 'situation' for a particular story developing. We may first specify the kind of nursery story along various dimensions– according to the presence of human and non-human actors, the presence or absence of overt moralising, the interrelation of sequent events, and so on. As further choices are made, the nursery story type is specified more delicately till we have a particular story which describes a particular situation or configuration of specific situations. Therefore instantiation of systems of genre, so long as they are developed enough, will eventually result in the specification of a situation or register. Therefore, the concepts of genre and register are not so much complementary perspectives on context, but stand in a relationship of instantiation. Alternatively, if one wants to view them as complementary perspectives, then culture is a perspective of context from the point of view of the system, and situation is from the point of view of the instance. Thus the concept of instantiation underpins quite fundamental aspects of how context is theorised in relation to a language. What this means for a given ancient Greek text is that we hope that a given text or set of related texts are the realisation of typical registers. In turn, it is hoped that these registers reflect community-prevalent patterns of instantiation of the community's culture. For instance, we examine a text like the Hippocratic *On the sacred disease* as a realisation of a typical register (discussing the cause of epilepsy in contrast to other causative theories in front of an educated audience that wishes to be informed and to engage with this opinion in their clinical practice). We then examine this particular register with a view to it potentially being the product of a typical pattern of instantiation of a genre (establishing causation of disease by evidence and deduction and refutation of alternative theories). Implicit in this approach is that we view a given Greek text as potentially being reflective of choices amongst established options in phylogenetically developed systems.

It may be worth noting that the picture of a register as being a simple instantiation of a genre may be complicated with other factors. The choices that are made in generic systems have to be put together with other features of the environment that are not directly involved in the production of the text. For instance, other features that might have to be taken into account are the social relationship between the writer / speaker and the reader / hearer. Other generic types and features of a situation may also be involved with the production and reception of the text . Examples of these might be such as the spoken form in a teaching session, written notes as an easily consulted aid in clinical practice, or arguing for a particular point of view in a theoretical medical discussion. So it might be concluded that genre and register do not stand in a one-to-one instantial relationship, and that the instantiation is bundled together with the material and social setting in a given context of situation.

*Chapter 4: Linguistic Prolegomena III– Towards a semantics and semiotic context for  
ancient Greek*

## **CHAPTER 5**

### **Linguistic Prolegomena IV: Lexicogrammatical metaphor in ancient Greek**

This section aims to explain the phenomenon of what is called grammatical metaphor (GM) in systemic-functional linguistics. Here, for reasons that will be explained below, this may be re-termed 'lexicogrammatical metaphor' (LGM). It is an important concept, both in the theory of systemic-functional linguistics (SFL), and for this thesis. The process of GM is predicated on the 'natural' relationship between semantics and lexicogrammar, one of the fundamental concepts of SFL; it will be argued below that it is an integral part of this 'natural' relationship. It also heavily involves the notion of semiotic and linguistic time, with its threefold dimensions; this allows for a quite precise characterisation of metaphor according to time axis, with valuable consequences. The concept of GM is important for this thesis, for two reasons. Firstly, if we are to achieve a coherent multi-levelled analysis of a Greek text, we will inevitably have to confront the realisation between the semantics and lexicogrammar in a text, and this will involve metaphorical processes almost by default. Secondly, we wish to investigate whether these scientific and medical texts are construing new meanings through new kinds of wording, in a way that is distinct from what might be considered 'non-scientific' texts. If so, we might suspect that metaphorical processes in the linguistic systems deployed are central to this.

The determination of GM in ancient Greek texts poses some special problems, primarily because it is no longer a language in active use, and the remaining written texts available to the modern reader are relatively few and of restricted registral and generic range. This makes it hard to conclusively demonstrate what was 'historically prior'. Some solutions to these problems, qualified by particular provisos, will be proposed to circumvent these problems. Because we aim to achieve a multi-levelled

analysis, we should not only describe metaphor in terms of lexicogrammar and clausally-oriented semantics alone; we should also describe it with reference to 'contextually oriented' semantics (such as the concepts of 'generic structure' and 'rhetorical structure') and to the semiotic context itself.

Metaphor is a significant area of research within SFL. Though explicitly only about the lexicogrammar of English, Halliday mentions the notion of 'non-congruent' or metaphorical means by which semantic phenomena are realised in the lexicogrammar, and essentially views this as a manifestation of the variable realisational relationship between the two strata<sup>156</sup>. In this account, metaphor is positioned at the core of the realisational relationship between the two strata. As explained before, this ultimately stems from a previous concept of the 'natural relationship' between semantics and lexicogrammar, borne out by his ontogenetic study of Nigel<sup>157</sup>. Furthermore, a characterisation of metaphor according to metafunction is demonstrated– effectively realisation 'crossing over' between metafunctions. This presupposes similar metafunctional organisation for clausally-oriented semantics as for the lexicogrammar, and this is more fully developed in the notion of the 'ideation base'<sup>158</sup>.

There has also been interest in the relationship of GM to particular registral and generic types. In particular, it has been investigated in relation to the creation of abstraction and technicality, and thereby to the conscious creation of text type-specific abstract knowledge and to the development of a theoretical model in a particular discipline, such as in scientific texts<sup>159</sup>. However, a consideration of metaphor has broadened out from here to deal with any text that might create abstract domains of experience, particularly in relation to the way in which two sets of events may be modelled in terms of each other, the lexicogrammatical resources to construe one 'borrowed' to construe the other<sup>160</sup>. There is now an interest in how metaphorical

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<sup>156</sup> Halliday (1994)p.342-367.

<sup>157</sup> Halliday (1975).

<sup>158</sup> Halliday and Matthiessen (1999).

<sup>159</sup> In particular see Martin (1993), Halliday (1998) and Matthiessen (1998).

<sup>160</sup> Martin and Rose (2003) p.228-235.



processes develop ontogenetically, and the way this relates to how children participating in a formal education system are apprenticed into the comprehension and production of abstract and technical texts<sup>161</sup>. A recently released volume of papers arising from an SFL workshop in Gent, Belgium in 1999 brings together many strands of research, continuing established areas of GM research (such as in the language of science and ontogenetic development) while reflecting on the implications of GM for linguistic models proposed in SFL, and exploring metaphoric processes at other linguistic levels and between distinct semiotic modalities<sup>162</sup>. The conception of GM, and research in GM, has become a 'hallmark' of current SFL research.

## **5.1 Semantics is realised by lexicogrammar**

In the previous chapter, what is meant by the term 'realisation' has already been set out. Here, the specific characteristics of the realisational relationship between semantics and lexicogrammar will be described. Of particular relevance is the notion of the 'natural' relationship between semantics and lexicogrammar, which has implications for trying to specify 'what is realised by what' between these two strata.

### **5.1.1 The significance of the relationship for functional linguistics**

A linguistic project, such as this one, which attempts to analyse a text on several levels and to map these levels to each other, eventually has to confront the problem of the relationship between semantics and lexicogrammar. This is a problem which many linguists, of the formal, generative and functional traditions, have attempted to characterise and resolve<sup>163</sup>. There is a vast amount of scholarly literature, both within

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<sup>161</sup> Derewianka (1995).

<sup>162</sup> See Simon-Vandenberg, Taverniers et al. (2003).

<sup>163</sup> To obtain an idea of how detailed an examination of this issue can be, see Lyons (1977) p.373-511, which outlines the kinds of issues, from the perspective of one

and outside of linguistics, that deals with this issue explicitly or implicitly. In fact, when considering the linguistic literature, it may be said that any discourse in linguistics that deals with lexicogrammar (or syntax) deals with this issue at least by implication.

It has often been observed that grammar is in some way meaningful, in the same way lexical items are said to convey meaning. For instance, a clause-long stretch of text can be labelled as a question or declarative according to its grammatical structure<sup>164</sup>; the reason why it can be labelled is that the structure or configuration of the wording in that clause itself realises a particular constellation of semantic elements. It therefore becomes a crucial issue as to where semantics and grammar 'stand' in relation to each other, so that one can explain why grammatical choices and structures are meaningful.

The issue is particularly problematised for those who take the functional perspective. In the Chomskyan and generative perspectives, semantics and grammar (or syntax) are said to stand in an 'autonomous' relationship to each other<sup>165</sup>; therefore, generative

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coming from a formalist view of language, that need to be considered. Lyons here does not explicitly align himself with a functional perspective on examining and resolving the problem, but there is discussion of issues to do with the 'ontological' aspect of sentences (p.438ff.), valency (p.481ff.), causativity and transitivity (p.489ff.), participant roles and circumstantial roles (p.494ff.) and theme, rheme and focus (p.500ff.). This discussion sits quite well with the metafunctional concerns found in systemic-functional linguistics.

<sup>164</sup> See Lyons (1995) p.182-193, where there is a distinction made between the propositional and 'non-propositional' content of a sentence, originally attributed to Gottlob Frege. Non-propositional meaning is held to be that component of meaning that specifies the 'type' of sentence– question, declarative, imperative and so on– a close correlate of the functional conception of interpersonal meaning. Since this kind of meaning is most easily seen to be a function of grammatical structure (unlike experiential meaning, which, however inaccurately, could be argued to be solely a function of its constituent lexemic components), it is a good case of how grammatical structure or configuration is meaningful.

<sup>165</sup> The term 'autonomous' in relation to formal theories of language can have more than one meaning, depending on the particular linguistic theory– see Butler (2003) p.5-10. However, in common with all interpretations of the term is that the nature and

or formal theories of either syntax or semantics *in themselves* do not require a clarification of the semantics-syntax relationship<sup>166</sup>. It is true that in the generative tradition there have been attempts to integrate syntax and semantics and to move away from the 'autonomous syntax' principle, through the development of 'transformational rules', 'deep structure rules' and 'projection rules' to link a syntactic configuration to a semantic interpretation<sup>167</sup>. However, this still presupposes two quite distinct entities with a separate set of rules to try to explain how they are linked to each other. Describing such a relationship therefore becomes an enterprise that can be carried out separately from characterising each stratum, because the relationship is posited to be arbitrary– that is, based on rules or conditions quite separate from those that operate in either stratum. The functional view, however– the view adopted in this thesis– premises its grammatics on the 'natural' relationship between semantics and grammar, and therefore on the Whorfian assumption that grammatical categories are semantically motivated. This necessarily foregrounds the issue of the semantics-grammar relationship; however, to simply state that the relationship is 'natural' does not in itself explicate the problem.

### **5.1.2 The 'natural' relationship and semogenesis**

The argument in functional linguistics for the 'natural' relationship between semantics and lexicogrammar is made on ontogenetic grounds. The essence of the hypothesis is

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properties of the syntactic or grammatical system are not readily predicatable from, or are similar to, those of the semantic system.

<sup>166</sup> See Lyons (1977) p.409-410, where Chomsky is described as treating both strata as operating autonomously. Langacker (1987) p.34-40 characterises much of modern linguistic theory as positing an 'autonomous syntax', as a manifestation of a more general tendency to impose a strict categorisation of linguistic phenomena and to treat levels of language as discrete components.

<sup>167</sup> See Lyons (1977) p.410-414, where there is discussion of these particular aspects of generative grammar– initially proposed by Katz and Fodor– which gave rise to a development of a 'generative semantics' that embraced the componential approach to meaning. Lyons notes Chomsky's drift to align semantic interpretation more closely with phenomena more central to a transformational / generative syntax, in 'extended standard theory'– see *ibid.*, p.416.

that, during language evolution (both ontogenetic and phylogenetic) there is a differentiation of a 'plane of content' (realised by a 'plane of expression') into a stratum of semantics and lexicogrammar. This view was first proposed on more theoretical grounds by Hjelmslev, where semiotic systems were thought to be constituted by reciprocally dependent planes of content and expression<sup>168</sup> – an elaboration and generalisation to the semiotic system as a whole of the Saussurean conception of the components of the individual sign– and the mutual relations between these planes.

Halliday used this conception to propose that the plane of content in this model develops ontogenetically into the strata of semantics (the systems of meaning) and lexicogrammar (the systems of wording), using his analysis of the language development of the child Nigel from using simple context-expression pairs through to the development of a protolanguage and towards a fully-fledged 'adult' linguistic system<sup>169</sup>. The 'naturalness' of the relationship between semantics and lexicogrammar is thought to derive from this common origin. Taking together Halliday and Hjelmslev, the development of semantics and lexicogrammar allows a dual orientation of content (or 'thought') to both systems of expression (through lexicogrammar) and to systems of situational or cultural context (through semantics). This perspective of the relationship between semantics and lexicogrammar has quite profound consequences, because it means that changes in one of these strata have consequences for the other because they stand in a 'natural' relationship to each other<sup>170</sup>. The phenomenon of semogenesis is one of these consequences, where the lexicogrammar is crucial for 'constructing' new meanings, by combining selections in semantic systems to construe experience<sup>171</sup>.

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<sup>168</sup> See Hjelmslev (1961) p.47-60.

<sup>169</sup> See Halliday (1975) p.12-14, 61-62. This view is maintained as a theoretical principle for the systematic description of the 'ideation base' in Halliday and Matthiessen (1999) p.4.

<sup>170</sup> Halliday and Matthiessen (1999) p.3

<sup>171</sup> This is explained in detail in Halliday and Matthiessen (1999) p.17-22.

It is this semogenic ability of lexicogrammar that is part of the basis of GM. As said before, according to the above hypothesis, changes in wording result in changes in meaning, because changes in any part of the plane of content will spread to the content plane as a whole. Therefore, in a given context of situation or culture, the choices of wording that are made result in changes in the choices of meanings in that particular register or genre. It can be put alternatively as follows: the way in which wording is used has at least the potential to influence the process of 'conceptualisation' in that particular genre or register. Thus, if we are to base a theory of metaphoric processes on this viewpoint, we are committed to saying that metaphor is a reciprocally dependent process of change in wording and meaning in a given text.

The second consequence of this view is that we might expect that the organisational principles of the semantic and lexicogrammatical strata to have at least some similarities. More precisely, we might expect that each of these strata make similar functional distinctions– which is to say that the relational configuration of each strata is similar. This means that we might expect to see similar metafunctional groupings in the semantics of a language like those of its lexicogrammar. This is in fact taken to be the case when Halliday and Matthiessen propose in the semantic stratum the 'ideation base', taken as the homologue<sup>172</sup> of the ideational metafunction in the lexicogrammar<sup>173</sup>. The similarities between the lexicogrammar and the semantics characterised in this way may be more fine-grained than this, and in the case of the ideation base, there are semantic categories homologous to the functional categories

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<sup>172</sup> The word 'homologue' is taken to mean more than just analogical modelling. To say that two phenomena are homologous is to say that they are similar in some respect because the two phenomena have developed from the same origin, and thus each will comprise some of the organisation of the original source from which they developed. For this reason, each of these phenomena will share similar organisation. This term is used in the context of biological phenomena in Rose (1997) p.

<sup>173</sup> See Halliday and Matthiessen (1999) p.11-12, 376-379, 398-414 for the semantic homologues to the metafunctions in lexicogrammar: the ideation base, the interaction base (corresponding to the interpersonal metafunction) and the text base (corresponding to the textual metafunction)

in the transitivity of the clause and clause complexes<sup>174</sup>. This characterisation of the ideation base, as part of the overall stratum of semantics, is clausally-oriented, but also homologous to the lexicogrammar in terms of organisation; but this does not exclude a complementary 'from above' characterisation of the semantic stratum in terms of contextual systems.

### **5.1.3 Decoupling and recoupling**

According to the above theorisation in functional linguistics, there is a 'natural' relationship between semantics and lexicogrammar, and similar principles of organisation in both. But this is not to say that there are fixed realisational relationships between the two; in fact, one of the reasons why there is a stratal distinction between semantics and lexicogrammar is because these relationships are fluid.

One reason why this is so is because the lexicogrammar and semantics of a language, despite their common origin, become 'drawn apart' from each other because of their participation in 'environmental' relationships with other strata. Semantics is located within the environment of context, and lexicogrammar provides the environment for an expression stratum such as phonology; furthermore, semantics itself provides the environment for the lexicogrammar<sup>175</sup>. These environmental relationships are reciprocal; the consequence of this is that semantic organisation also becomes oriented towards context, and lexicogrammatical organisation towards the stratum of expression.

Meanings become oriented with respect to register and genre– that is to say, the meanings that become encoded in the semantic systems become the means by which

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<sup>174</sup> Again, see Halliday and Matthiessen (1999) where there are both homologues to the clause complex, the clause and an element of the clause in the ideation base, implicit in the 'sequence / figure / element' model proposed.

<sup>175</sup> Halliday and Matthiessen (1999) p.4

the semiotic activities in a community's culture are mediated. Similarly, systems of lexicogrammar are oriented to systems of phonology; the principal argument for this is that the simultaneous operation of lexicogrammatical systems results in syntagmatic structures whose relatively linear structural sequences are adapted to the linear production of speech sounds by the vocal tract.

This 'pulling apart' of the two strata of semantics and lexicogrammar is therefore due to the operation of 'environmental' factors. This results in a greater degree of their disjunction, which allows 'slippage' between them. This is not a new observation– Saussure observed a homologous phenomenon in the potential for change in the relationship between signified and signifier<sup>176</sup>. This argument simply generalises this observation beyond a simple content-expression dichotomy to the current multi-stratal view of language. This 'slippage' allows for the recasting of realisational relationships between semantics and lexicogrammar– the phenomenon that makes metaphor possible.

This is why, in Halliday and Matthiessen's terms, the lexicogrammar is semogenic<sup>177</sup>– because, firstly, it has a 'natural' relationship to semantics, and, secondly, there is potential for change in the realisational relationships between semantics and lexicogrammar. Realisational relationships can, over time, become decoupled, and the recoupled into new kinds of realisational relationships. In Saussurean terms, the recasting of these relationships involves changes in signs, and the production of new signs, and it is in this sense that the operation of the lexicogrammar within the environment of the semantics over time results in semogenesis– bringing new signs into being. Because meaning, in the Saussurean sense, involves the process of linking the two facets of the sign, semogenesis involves the recasting of meanings in a language's systems.

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<sup>176</sup> Saussure considers this issue is discussing the 'variability and invariability of the sign'– see Saussure, Bally et al. (1991) p.74-76.

<sup>177</sup> Halliday and Matthiessen (1999) p.17-22.

## **5.2 A definition of metaphor**

Metaphor is the process by which, for an agnate set of meanings in a language, the means by which they are realised in the lexicogrammar change over time. This is a process that depends on the fundamental properties of the semantic and lexicogrammatical strata and their relationship to each other<sup>178</sup>. Since this affords the potential for realisational relationships to change, there is always potential for metaphor to occur in the operation of a language's systems. Thus metaphor is inherent to linguistic systems– it is not a special feature or an example of 'exceptions' to the normal operation of the grammar. The process of metaphor is expected to happen, and the process itself is unexceptionable.

As has been noted before, this is a characterisation of metaphor 'from above'<sup>179</sup>. We look at metaphor from the point of view of the semantics– the change over time in how agnate meanings in agnate contexts are lexicogrammatically realised. This is in contrast to more traditional views of metaphor, where a given element of wording is thought to construe a different meaning at a later point in time, often in a different co-text and context<sup>180</sup>.

Another aspect of more traditional accounts of metaphor is that it typically emphasises the lexical element of wording in a language. The process of metaphor is often thought to be carried solely by individual lexical items. However, this view can be criticised in functional linguistics on two interrelated grounds. Firstly, it has often been noted that individual lexical items in a clause that are thought to be 'metaphorical' are associated with particular kinds of other grammatical features. For example, in the language of political analysis and reporting, lexical elements to do with spatial location are used to denote political affiliations and positions:

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<sup>178</sup> See also Halliday (1998) p.192.

<sup>179</sup> Halliday (1998) p..

<sup>180</sup> Halliday (1994) p.341-342



*The Economist* 369 (8351) (November 22 2003)

Meanwhile, Bush-hatred is dragging the Democrats dangerously to the left, || just as Clinton-hatred dragged the Republicans to the right. ||

However, the lexical items 'left' and 'right' are also associated with a particular process type in each clause– a 'material dispositive' Process (drag) whose selection opens up the potential for selection of a Goal (is dragging the Democrats), and / or Circumstances of spatial location, direction and extent (dragged... to the right). Thus, the particular lexical items are associated with other lexicogrammatical selections in the clauses.

Clinton-hatred dragged Republicans to the right Clinton-hatred pulled Republicans to the right Clinton-hatred drove Republicans to the right	<b>Predominantly lexical metaphor</b> (differing lexical choices, equivalent grammatical choices)
Clinton-hatred dragged Republicans to the right Republicans dragged to the right because of Clinton-hatred	<b>Predominantly grammatical metaphor</b> (differing grammatical choices, equivalent lexical choices)
Republicans dragged to the right because of Clinton-hatred Republican policy dragged to the right because of Clinton-hatred Republican policy drifted to the right due to Clinton-hatred	<b>Predominantly lexical metaphor</b> (differing lexical choices, equivalent grammatical choices)
Republicans drifted to the right because of Clinton-hatred Republican policy became more right-wing because of Clinton-hatred	<b>Grammatical and lexical metaphor</b> (differing lexical and grammatical choices)

**Figure 5-1 Various combinations of lexical and grammatical metaphor in English**

This 'clustering' of metaphorical processes affecting processes and participants in clauses is not only noted in functional linguistics<sup>181</sup>, but also in the more 'cognitive' approaches to metaphor<sup>182</sup>. It is quite easy to find this kind of clustering in ancient Greek.

Thucydides 2.59 The Athenian people change their mind about Periclean policy

kai ton men Periklêa en aitiâi eikhon || hôs peisanta sphas || polemein || kai di' ekeinon tais xumphorais peripeptôkotes, || pros de tous Lakedaimonïous << hormênto>> xungkhôrein;

...and they held Pericles responsible, || since he had persuaded them || to wage war || and had fallen into misfortunes because of him, || and <<were keen>> to come to a truce with the Spartans;

ton ... Periklêa	en aitiâi	eikhon
Goal	Circumstance: location: space	Process: material: dispositive + effective

di' ekeinon	tais xumphorais	peripeptôkotes
Circumstance: cause	Range <sup>183</sup>	Process: material: dispositive + middle

<sup>181</sup> This is referred to as 'syndromes' of metaphor in Halliday (1998) p.213.

<sup>182</sup> For example, see Kittay (1987) p.244-248 which attempts to relate syntagmatic or collocative relations to a semantic field theory of metaphor where the selection of particular lexical items 'requires' the co-selection of particular grammatical roles. Such collocations of metaphor are also implicit in the 'schemas' presented in Lakoff and Turner (1989), such as the 'time moves' metaphor which implies a whole grammatical configuration of movement through space– see *ibid.*, p.44-46.

<sup>183</sup> The alternative interpretation of this element as Circumstance: location: space is not favoured here as this verb can co-occur with prepositional phrases that do denote a location in space in which one might fall into misfortune– for example, *en Athênais* (Circumstance: location: space) *tais xumphorais* (Range) *peripeptôkotes* (Process: material: dispositive). See Liddell, Scott et al. (1968) p.1383.

pros ... tous Lakedaimonious	xungkhôrein
Circumstance: location: space	Process: material: dispositive + middle

An overall spatial metaphor is used here to construe the Athenians' loss of allegiance to Pericles, and this metaphor consists of a combination of material dispositive processes with either a Range or Circumstance of location in space. It is not any one lexical item that 'carries' the metaphor here.

The second ground is to do with where lexis stands in relation to the grammar of a language. When the grammar is characterised in functional terms– and this becomes particularly evident when the system network is the tool used to characterise it– the first kinds of choice made are between relatively 'coarse' functional distinctions. In effect, this is the set of choices to determine the grammatical categories present in a given clause. However, as these categories become more delicately specified– for example, in terms of the kind of participant or process– then we begin to specify the functional features of individual lexical items, and thus lexis really is the more delicately elaborated branches of grammatical choice<sup>184</sup>. Thus, if we talk about semantic phenomena being realised by different grammatical choices in grammatical metaphor, then we are discussing the same kind of process as those involved in semantic phenomena being realised by different lexical choices. The difference between lexical and grammatical metaphor, in functional terms, is one of delicacy.

Hence, in dealing with the process of grammatical metaphor, we are also dealing with the same process that underlies lexical metaphor. Therefore, it is possible to re-label the process lexicogrammatical metaphor (LGM).

However, before proceeding, there needs to be a specific elucidation of grammatical metaphor, as this a relatively unfamiliar conception of metaphor. Essentially, it is the process where a given configuration in the semantic stratum is realised by different

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<sup>184</sup> For a fuller exposition of this argument, see Hasan (1996), particularly in relation to processes of acquisition and distribution.

choices in the grammar. These different choices in the grammar can be at any level of delicacy. They may be at the finest levels of delicacy of choice– for instance, a choice of different lexical features. They can also be at a very 'coarse' level– for instance, the semantic phenomenon of Event may be realised not by a choice of Process in the lexicogrammar, but by a Participant; this particular example underlies the phenomenon of nominalisation.

So far, it has been assumed that semantic phenomena from one kind of metafunction are realised by choices in the same metafunction in the lexicogrammar. However, this is not necessarily the case, and has been recognised as such, in the phenomenon of 'interpersonal metaphor' of interpersonal categories in the semantics. One particular example in English involves realising modality in the semantics (an interpersonal category) by mental processes of cognition in the lexicogrammar<sup>185</sup>. However, in this thesis, the focus of enquiry is on how the text construes the experienced world in the context of the actual semiotic practice going on. Therefore there will be emphasis on experientially oriented semantic phenomena being realised metaphorically in particular selections in the experiential systems of the lexicogrammar. The kind of 'cross-metafunctional metaphor' described above will be left aside in this discussion.

### **5.2.1 Metaphor and semiotic time**

Implicit in a definition of metaphor is that metaphor is a linguistic process that takes place over time. In this conception, an agnate set of meanings are realised non-metaphorically (or congruently) at one time, and metaphorically (or non-congruently) at a later time. But as has been explained before, semiotic time can be characterised in three ways, and so we can further specify metaphor in terms of each time axis.

Therefore we can say that logogenetic metaphor refers to a given meaning or set of agnate meanings that are realised in a different way in a later part of a given text

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<sup>185</sup> See Halliday (1994) p.354-367.

compared to earlier sections of the text. Similarly, ontogenetic metaphor refers to meanings realised by different lexicogrammatical means at a later stage of an individual's development, and this is the kind of metaphor that is the focus of Derewianka (1995). Phylogenetic metaphor refers to a speech community's means of realising a set of agnate meanings in a different way compared to how they were realised in prior stages of the history of that community; this is the kind of LGM that is implicit in most studies of LGM, and rather more explicit in the investigation of LGM in scientific texts<sup>186</sup>.

As explained previously in this thesis, it is relatively hard to determine processes of ontogenetic metaphor in ancient Greek, because it is difficult to find direct evidence for ontogenetic linguistic development in general. But we may expect that we might get a reasonable picture of logogenetic metaphor for individual texts. A particular logogenetic metaphor may be confined to the individual text or the individual person; however, it is quite possible that it reflects ontogenetic metaphor, just as the children in Derewianka's study ontogenetically develop resources for metaphor, and the recapitulate that development in their own logogenetic language production<sup>187</sup>. It is also probable that phylogenetic metaphor might be revealed in this way; the texts that are under examination in this thesis are of specific genres and registers, and are intended to be in the public domain. Under these circumstances, it is likely that these texts will employ metaphorical strategies that are employed by other producers of other texts at other times, in order that these texts are readily understood by others. This is so, particularly if we assume that the author shares a given a cultural practice with others in a social community.

The consideration of time axes in relation to metaphor also has value in explaining how some kinds of metaphor (lexical or grammatical) appear more 'obvious' than others. One tends to notice metaphor when it appears logogenetically, because the text displays two ways of realising what is semantically agnate. However, when

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<sup>186</sup> See Halliday (1998) which explicitly relates modern scientific discourse to Newton's development of an optical theory in *Opticks*.

<sup>187</sup> See Derewianka (1995) p.199-211, 219-224, 226-228.

considering phylogenetic metaphor, there may often be only one principal way of construing a given semantic entity in a given context at any one point in the history of the speech community; historically prior construals may have died out by then, and it might take conscious reflection on the language by the individual (not to mention some research) to uncover them. This may lead to the phenomenon of 'washed out metaphor', where the previous construal is relatively difficult to recover, and the 'metaphorical force' of the current construal which may have been present in previous stages of the language is lost.

The other value of considering the time axes is in considering the issue of semantic junction. This is particularly apparent in specific aspects of grammatical metaphor that involve changes in grammatical category, such as nominalisation, where the semantic entity of Event is construed in the lexicogrammar as Participant. This has led to the observation that these nominalisations are 'process-like nouns' or 'noun-like processes', and therefore that there might be a conflation of semantic categories. It will be argued that this notion of 'junction' is better understood in terms of what is happening in the realisation of semantics in lexicogrammar logogenetically and phylogenetically, and how the probabilities in realisation shift. This argument will be further elaborated in the later discussion of nominalisation.

### **5.2.2 Rewording and re-meaning**

So far, we have presented the idea of metaphor as being a change in the realisation of a given semantic phenomenon in the lexicogrammar over time. But we have also said that semantics bears a 'natural' relationship to lexicogrammar, and therefore it is likely that changes in one lead to changes in the other. If the process of metaphor requires that there be a change in choices of wording, does this mean that metaphor results in changes in meaning?

According to Halliday, the answer seems to be 'yes'<sup>188</sup>. The argument appears to be that metaphor– lexical or grammatical– results in the phenomenon of semantic junction, where there is an 'intersection' of the congruent and metaphorical realisations of what is semantically agnate. This accounts for the ambiguity of many kinds of metaphor– such as that of nominalisations in English<sup>189</sup>– which in effect is ambiguity between these congruent and incongruent construals. This notion of semantic junction can be further refined by seeing metaphor in terms of the various time axes. Thus we can have notions of logogenetic, ontogenetic and phylogenetic remeaning. In the process of logogenetic remeaning, we have semantic junction between what is realised by grammatical configurations at one point in the text, and what is agnate to it, realised by different grammatical configuration at a previous point in the text. The following example from Thucydides shows this well.

Thucydides 1.67 ...*kai kateböön <<elthontes>> tôn Athênaiôn || hoti spondas te lelukotes eïen || kai adikoïen tên Peloponnêson...|| kai alloi te parïontes || engklêmata epoïounto hôs hekastoi || kai Megarês, || dêlountes men kai hetera ouk oligâ diaphora, || malista de limenôn te eirgesthai tôn en têi Athênaiôn arkhêi kai tês Attikês agoras para tas spondas. |||*

...and (the Corinthians) <<came up to speak>> and denounced the Athenians– that they had broken the truce || and were doing wrong against the Peloponnese...|| and others came up || and made accusations one by one, || among them the Megarians, || showing that there were other points of grievance, not a few of them, || but most importantly that they had blockaded the harbours in the Athenians' area of control and the marketplaces in Attica in contravention of the truce. |||

In this passage, two groups of people make accusations against the Athenians. However the act of making of making the accusation, and the projected claim of

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<sup>188</sup> See Halliday (1998) p.227-229 and Halliday and Matthiessen (1999) p.546 in the discussion of English discourses of science and their use of grammatical metaphor.

<sup>189</sup> Whether such ambiguity occurs in ancient Greek nominalisation will be discussed in the later section on nominalisation (Chapter 6).

breaking the treaty, is construed by different lexicogrammatical choices in each case. For the semantic Event of making a claim, it is realised by the clause complexing of getting up to speak in an assembly or meeting, hypotactically dependent on the main clause which construes a speaking event from which there is a projected clause. But in the later instance, this main clause comprises a material process of doing and a nominalisation of a speaking event, contrasting with the verbal process previously. As for the projected claim, this is construed in the previous instance by a material process plus Goal to construe the 'thing broken'. In the later instance, it is construed by another kind of material process with a Circumstance: manner *para tas spondas* 'in contravention of the truce' that construes the condition under which the main Process takes place. In the more traditional approach to metaphor, it is the lexical differences that are noted; but these lexical differences are a consequence of, or secondary to, the logogenetically prior lexicogrammatical choices made. It is interesting to note that this example comes from a narrative section of the history, and not obviously from a part of the history that 'consciously reflects' on events. However, the effect of the LGM here is to co-categorise the events of the various parties involved in accusing the Athenians, and so to show that there was a general 'theme' or motivation behind these events.



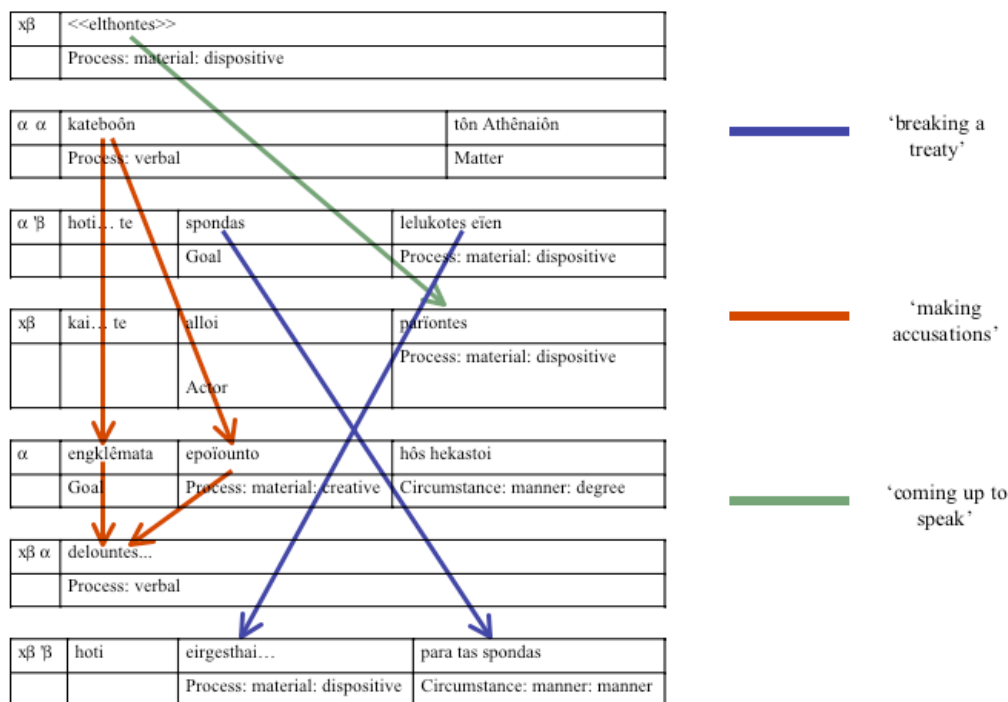


Figure 5-2 Rewordings of particular semantic figures in Thucydides 1.67

It is interesting to note that nominalisation is a feature of both later instances, and that they are associated with different kinds of processes. With regard to the nominalisations, it is proposed that this is a case of logogenetically mediated semantic junction and therefore logogenetic re-meaning. But can we also claim that this is a case of ontogenetic and phylogenetic re-meaning? For the former, we would have to demonstrate that the same process was occurring in previous texts by the same author– difficult to do for Thucydides, or for any other ancient Greek author, particularly if we assume 'non-linear' composition of literary works. For phylogenetic evidence, we would have to show that this was a recurrent pattern for different authors of different texts (to show that the metaphoric process is found in the speech community as a whole), and that the previous means of construal occurred earlier in the history of the language, and the later one evolved at a later point in time. However, as has been pointed out before, we expect that a text such as the above example was in the public domain. We therefore suppose that not only will the text

employ similar means of construal to those employed by the audience of that text, but also that patterns of metaphorisation are also in line with more community-prevalent patterns of metaphorisation, or that at least what the audience of these texts read is not in disjunction to their own linguistic practices.

But is this re-meaning? Or, to put it another way, does this expand the construal and meaning resources of the language? It does so for two related reasons. Firstly, metaphorisation provides alternative means by which semantics may be realised by the grammar. The second reason is the consequence of the first, and is particularly apparent with nominalisation (although this is applicable to other kinds of metaphor). Once a given semantic phenomenon is construed by different lexicogrammatical means, then that semantic phenomenon can be construed in different kinds of discursive and semiotic practice, where that pattern of lexicogrammatical construal is already used. So if an Event is construed as a participant in the lexicogrammar of a given text, then the resulting nominalisation has the potential to be used in another text in a different way– such as to participate in Token / Value or Carrier / Attribute relationships that may be used to construe class membership, constituent membership, equivalence and similarity. As the above example shows, relational processes do not have to be explicitly used to co-categorise several events; this might imply that LGM might have a general categorising function in text. These metaphorical processes in turn have the potential to build up a structure of relatively abstract concepts, the design principles of which are based on the grammar of relational processes. Thus the process of metaphor enables a set of agnate semantic phenomena to be worded into different kinds of discourse, and so developed in different ways. It is in this sense that lexicogrammatical metaphor expands the meaning potential of a language.

We can therefore say that metaphorisation involves a process of re-meaning, or semogenesis. This has important consequences. No longer can one say that metaphor involves the different realisation of the same meaning. Once a metaphorical wording is employed, the semantic phenomenon that it realises is no longer the 'same' as that realised by the non-metaphorical wording. It cannot be the same because this metaphorically realised meaning now has the potential to be construed in different

kinds of texts and contexts, and therefore differs from the non-metaphorically realised meaning. We therefore say that the meanings construed non-metaphorically and metaphorically are 'agnate' with each other, rather than being 'equivalent' or 'identical'.

### **5.3 Determining the presence of lexicogrammatical metaphor in ancient Greek texts**

In order to determine the presence of GM in an ancient Greek text, we need to identify semantically agnate phenomena, and find their congruent and incongruent realisations separated by a period of time. Ideally, we should be able to identify metaphorical processes in any of the three time axes. However, ancient Greek is a dead language, with no new texts being produced, no current native speakers, no direct access to the spoken varieties of the language, and only a proportion of written texts available to us. This makes identifying GM relatively difficult. However, as has been said before, logogenetically developed metaphor should be the easiest to investigate. Therefore we would look for congruent and non-congruent realisations of semantically agnate phenomena, separated in time by a stretch of text.

Initially, there will be no claim that the realisation that occurs first in the text is taken as ontogenetically, or phylogenetically congruent; it is simply logogenetically congruent by virtue of occurring first in the text. However, as has been noted before, metaphorical processes in a text in the public domain are likely to follow those that are relatively prevalent in the speech community. Therefore, what is found in a logogenetic study of metaphor is likely to have significant implications for what one might surmise about the phylogenetic process.

If we were to investigate the ontogenetic development of metaphor, we would ideally have direct access to, and insight into, language development in those who are of the ancient Greek speech community. It is also likely that we would have to look at such development in the early stages of apprenticeship into the language. Derewianka's

study of the development of grammatical metaphor in English-speaking children<sup>190</sup> concentrates on the transition period between late childhood and early-to-mid-adolescence, where the children in the study are being apprenticed into discourses of the humanities and sciences. This takes place within the larger context of formal education systems that are entrenched in the social practice of the speech community. In ancient Greece, universal formal education was not so prevalent, because– at least in Athens and Ionia– formal education to equip one for public life was a private, not public, responsibility. However, the authors of those texts available to us can be presumed to have had significant formal training in rhetoric and other forms of language study at a relatively early age– probably through their adolescence<sup>191</sup>. However, we do not have direct access to this process, and so cannot comment authoritatively on the ontogenetic development of metaphor. We might be able to have some idea of ontogenetic processes by looking at those authors who have produced works of large length with several constituent books (such as Thucydides and Herodotus) or those who have written several texts (such as the playwrights and Plato). We might then consider these works for an individual author in order and look for how semantically agnate phenomena are realised from book to book, or work to work. However, it is likely that they have already developed metaphorical modes of meaning well before they come to have written these works, and so these texts are not likely to directly reveal an ontogenetic progression from congruent to incongruent forms of wording. The likely non-linear production of these works also militates against finding clear ontogenetic patterns.

It has already been said that texts with a public audience are likely to reveal metaphorical processes that might be shared among the members of the speech community. This is simply to say that the author and his audience share some of the same kinds of metaphorical development in the texts that they produce. Whether this

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<sup>190</sup> See Derewianka (1995).

<sup>191</sup> For a more detailed account of education in ancient Greece, see Thomas (1992). In addition, see Law (2003) p.14-19 for methods of language learning in the Near East that made their way into sophistic education in the classical period, and later theorised at least to some degree by Aristotle in his *Rhetoric* (ibid., p.31-32).

development reflects that of the history of the language systems and the speech community is another matter. However, it is often suggested that logogenetic and ontogenetic processes share the same pattern of emergence that are found in phylogenesis<sup>192</sup>. If this view is taken into account, then not only do logogenetic instances of metaphor reveal the logogenetic practices of others in the same speech community, but also the phylogenetic development of lexicogrammatical and semantic resources in the evolution of the language. To confirm this view, we would have to have a comprehensive range of texts at all of the various evolutionary stages of the language. In the case of ancient Greek, this is quite beyond us. It is safe to assume that the Homeric works– the earliest Greek texts available to us– are of considerable literary sophistication, and so the language systems would have in place lexicogrammatical and semantic resources to support such complexity. Indeed, it is most likely that we would have to look beyond the history of Greek, beyond the Mycenaean period, and beyond the putative 'proto-Indo-European' language to come to a point where we see metaphorical processes come into being in an IE language.

However, this is not to say that all the possible metaphorical processes in a language occur in the early stage of that language or its ancestors. As Halliday's study of the development of scientific texts in English shows<sup>193</sup>, metaphor occurs in any period of a language's evolutionary history. What is being asserted here is that these kinds of metaphor would share similar patterns in the process of development as any other kind of metaphor at any time in the history of the language. Thus metaphor is a recurrent tendency in the history of a language. Taking the example of scientific English, the 'things and relations' model of the grammar that Halliday proposes does not claim that a 'things and relations' grammatical model developed in the early history of English, or that its development has spanned the entire history of English up till now; instead, this pattern developed along the same principles as other kinds of metaphoric shift in earlier stages of the language. The only claim that Halliday's proposal makes about metaphoric processes in general in English is that it involves a

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<sup>192</sup> For example, see Halliday (1975) for this view.

<sup>193</sup> Halliday (1998).

re-alignment between semantics and lexicogrammar, and that this re-alignment results in the creation of new meanings and the evolution of different kinds of discourse that are used for specific purposes by at least some section of the speech community.

In short, GM is a tendency in a language that recurs at particular points in the history of a language. It therefore pays to bear in mind that metaphor in a text always occurs in the environment of the more general principles of text organisation, and the context in which those texts are produced.

## **5.4 Metaphor and its co-text**

It is self-explanatory that metaphor occurs in a text. However, a text is generally taken to be a unit at the level of semantics<sup>194</sup>, and therefore the process of metaphor takes place within a semantic environment. This means that the process of metaphor contributes to this environment, and the semantic environment of the text surrounds metaphor.

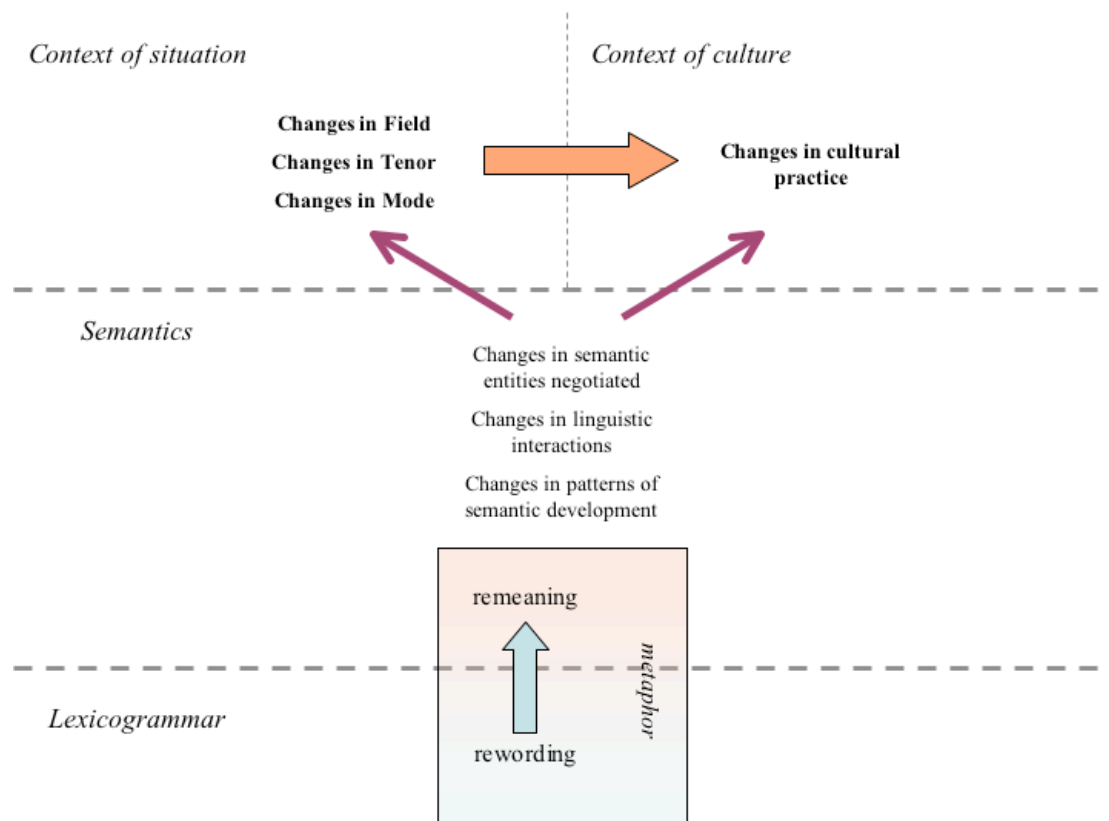
Therefore metaphor occurs in the environment of a co-text, and in context. In the first instance, it helps to know what this co-text is like– and this can only be elucidated with reference to the ways in which the stratum of semantics may be characterised. In general, the stratum of semantics, like lexicogrammar, may be characterised 'from below' and 'from above'– which gives rise to the notion of a 'low-level' and 'high-level' semantics. In effect, GM results in 'low-level', clausally-oriented semogenesis that is in turn incorporated into larger and larger semantic entities which are better characterised as 'high-level' semantics, oriented to the context.

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<sup>194</sup> See Halliday and Hasan (1989) p.10-11. The following explanation seems to refine this further to say that a text is a semantic unit that has a relatively unitary function in a given context of situation and of culture. This is also the viewpoint adopted in Martin (1992) p.17-28 in developing a model of 'discourse semantics'.

In locating metaphor in its co-text in this way– as 'low-level' semogenesis within larger semantic entities– we then come to locate metaphor with reference to the context of situation. It will be recalled from earlier in this thesis that the context of situation has a tendency to be metafunctionally organised through the categories of Field, Tenor and Mode– just as 'low-level' semantics and lexicogrammar are. We therefore expect that metaphorical processes within the ideational metafunction have some kind of relationship– though not invariably– to the Field associated with a text. It is therefore quite possible that ideational metaphorical processes have the potential to affect the kind of linguistic activity going on, and / or the Field of a text to put constraints on, or enable, particular kinds of metaphor. Furthermore, if any ideational metaphor has consequences for the information structure in a clause, then it is likely that this will have ramifications for a text's Mode– particularly in terms of how the linguistic activity is structured and propagated.

If we abstract away from situation instances and situation types, and consider the systems associated with the context of culture, it becomes rather more difficult to see in what way ideational metaphor has a direct bearing on particular kinds of cultural practice. However, if we take on the viewpoint that 'instantiation builds the system', then we might see that metaphor affects culture by virtue of having effects on situation instances. So it might be proposed that the particular kinds of metaphor employed in a 'scientific' description of a past event, such the account of the plague, may change the cultural functions of narrative, from simply retelling events to also being a means by which to invite conscious reflection and interpretation of narrated events.



**Figure 5-3** The potential significance of metaphor for changes in cultural practice

#### 5.4.1 Metaphor and the context of situation

So far we have described metaphor as being a semogenic process, where the lexicogrammar engenders changes at the sequence / figure / element level of semantics. This process takes place within the environment of higher-level semantic phenomena. It takes place within a co-text that is relationally structured, as is describable by RST; as such, metaphor is thought to take place within the semiotic system of its co-text. It also takes place within a more 'global' configuration of the co-text that directly realises and reflects the context of culture, the specific ways that a speech community goes about cultural practice, as reflected in its generic structure. In summary, therefore, metaphor is viewed in this thesis as being the reconstrual through the lexicogrammar of meaning within a semiotic system associated with a particular kind of cultural practice. The linguistic analysis performed in this thesis



aims at a mapping between two strata– semantics and lexicogrammar– and between levels within each stratum.

In this thesis, we are trying to understand how, and in what way, ancient Greek texts came to consciously reflect and theorise on experience. The account of the plague and the other texts from Homer, Hesiod and Herodotus are taken as example texts, as a means of gaining insight into this form of cultural practice. It therefore makes sense to describe semantic and lexicogrammatical phenomena with reference to the context of culture, if we are to see the conscious reflection and theorisation of experience as a form of cultural practice. The use of GSP is intended to relate the semantic configuration of a text to the context of culture.

There are some difficult problems in trying to relate the text to the context of situation. The problems relate to it being a literary text in a dead language, as is the majority of ancient Greek texts that we have. In the case of literary texts, the time of production does not coincide with the time of reception, and even in the case of reception, the way in which it is received depends on whether it is heard (received linearly in time) or read (perhaps received non-linearly). Both of these contrast with the way that the written text is likely to have been produced, starting from notes and annotations, and with several draft versions produced (and perhaps modified in light of the comments that others have made after reading or listening to these drafts) before the text took the final shape as we have it.

Thus the literary text is complex, both in terms of its production and reception. This has been acknowledged in functional linguistics, and in relation to literary texts. With reference to the account of the plague, Thucydides not only writes a systematic account of the disease and its physical, psychological and social effects, but he also intends the piece as being an unexpected assault on the programme of Periclean Athens, in contrast to its achievements till that time. He also intends the account as the start (and probably cause) of an unravelling of sensible and prudent policy in relation to the war with Sparta; it is probably his intention that we see the post-plague confusion and inability to maintain political and strategic discipline leading to

demagogue-driven policy, culminating in the eventual defeat of Athens some twenty years later.

What we see as Thucydides' 'aims' in writing this account are a mixture of production and reception. We have direct experience of them in the context of reception; but it is difficult to know whether some, or all of these contextual features were also part of the context of production. Put simply, we cannot assume that Thucydides (or the other authors examined in this thesis) intended us to interpret the text in the way which the ancient audience did, and the way in which the modern audience does. The approach that will be taken here is that any specification of the context of situation associated with the account of the plague will be of the context of reception.

An added layer of complexity is present when these texts are in a dead language, and the speech community is long gone. Of course, we do not have direct knowledge of how Thucydides' account was produced; for the best evidence for this process, we would need to have a commentary from the author himself on how it was produced. All we have to go on is Thucydides' own comment that he suffered from the disease itself and saw others similarly affected, and therefore he is writing from his own observation<sup>195</sup>. But even this is disingenuous; he must be also writing with respect to how others saw the plague and its effects on Athens as a whole, because he also writes about the reactions of others towards their sick relatives and friends, and how it affected the attitude of Athenians<sup>196</sup>. So it is not possible to determine with certainty what the features of the context of production are.

The issue of ancient Greek being a dead language also impacts on the context of reception. Essentially, we cannot be sure that the context of reception for Thucydides' contemporaries (the audience he was directly writing for) is the same as that of the modern reader. The first difference appears to be that the classical period practice of

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<sup>195</sup> See Thucydides 2.48 for this comment.

<sup>196</sup> Thucydides 2.51-53.

reading prose literary texts aloud to a live audience<sup>197</sup>; we can only assume that Thucydides was aware of this practice and therefore his writing was shaped by this requirement. However, we also do not have a definite picture of the wider context of reception at the time. We do not fully know how the reading of a text such as Thucydides' fitted in with all the other cultural practices the ancient audience engaged in, and how the text was regarded and interpreted against this cultural background. To what extent was Thucydides' account read or heard for its informative function, or its potential for analysis or interpretation of historical events, or its aesthetic function, or storytelling function? Or did the text fulfil other functions which we do not know about? Can we assume that the text is constitutive and not in any way ancillary? Furthermore, can we be sure that the text fulfilled the same functions at different contexts of reception at different times? It is reasonably safe to assume that the context of reception of ancient times differed substantially from that of the modern era in terms of functions and diversity, where ancient Greek texts are read by scholars with a specific professional interest in trying to 'reconstruct' the ancient era, or trying to 'scientifically' determine the cause of the plague.

One clue to this difference between the ancient and the modern era in terms of the context of reception is the subsequent modelling by later ancient authors on Thucydides' account of the plague. It becomes clear that Thucydides' account becomes the 'gold standard' for describing epidemic disease in a narrative text. However, it is not necessarily because later authors valued the account for its scientific accuracy; instead, they modelled their descriptions on it because the account was thought to be effective in conveying a sense of pathos and devastation. But the point of any modelling of a text on Thucydides' work is to convey the sense of complete devastation, not because 'scientific accuracy' or 'rational description' and explanation is being valued. Thucydides' account was considered as good literature, not necessarily as good science, which contrasts markedly with the modern preoccupation about what extent the 'real cause' of the disease can be determined from

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<sup>197</sup> In effect, this is not too far removed from the reading or performance of other prose literary texts, such as political or legal oratory, or those in verse or lyric form such as tragedy and comedy.

the text, or to what degree it counts as a scientific approach to describing a given phenomenon<sup>198</sup>. Therefore it is quite likely that the context of reception differs substantially between the ancient audience and the modern one.

This presents us with additional difficulties in trying to determine the context of situation in which the account of the plague is received. The only context of situation to which we have direct access is the context of reception of the modern readers of Thucydides' text. This can only have an indirect relationship of the context of reception for the ancient audience, and an even more indirect one of the context of production or creation. However, this does not prevent us from setting out a Field / Tenor / Mode configuration of the context of situation, so long as we know how to interpret it, and keep in mind that it will not be a comprehensive statement of the context of creation or reception at the time the account was composed and first came into the public domain in the classical period of Greece. It will be instead a statement of the type of context of situation for modern reader reception of the text, which is at least a partial reflection of the 'original' context of reception. We can try to specify how any metaphorical patterns fit into this statement of the context of situation. Specifically, if the focus of linguistic investigation is on the ideational metafunction, we can expect any phenomena we find to construe at least some aspects of Field and Mode. For instance, one possibility is that the grammar of the account construes events in a particular way through the lexicogrammar, so that part of the associated Field is not only concerned with a narrative event but also is an implicit theory of interpretation of those events, both in itself (what the disease was) but also what its historical and political significance was. Again, if we examine the rhetorical structure of the account in which metaphoric processes operate, we may be able to characterise the overall strategy of text development which would help to characterise the Mode. But we would also be careful to say that the Field and Mode are characterisations of the context of reception of the modern reader, with indirect

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<sup>198</sup> For an example of the modern consideration of the 'plague of Athens' as a 'scientific' account, see Page (1953), Parry (1969), Langmuir, Worthen et al. (1985) and Longrigg (1992).

implications for that of the ancient reader and the context of creation or production in the case of Thucydides himself.

An inference of the context of situation for Thucydides' account is obviously valuable, because it is a description of what is happening in the communication of this text. However, the value of what it describes for the purposes of this thesis is what it says about a particular form of cultural practice, that of 'scientifically' describing and reflecting on experienced phenomena. It has been discussed before that the context of situation is in effect an instantiation of cultural systems. Therefore we look at this particular context of situation– or specifically, the context of reception of the ancient audience indirectly reflected in that of the modern reader– as being 'reflective' of those systems. But this is not to say that unmarked or 'regular' choices have been made in those systems to result in the context of situation associated with this account. It may be the case that the text's context comprises a novel combination of choices in those systems. But at the same time, it is assumed that those choices were available in the systems, in order for them to be selected and combined in novel ways. The plague that afflicted Athens may have been outside of the ordinary experience of its residents at the time; however, in order to semiotically construe those events, they must have used the already established cultural systems to do so.

## **CHAPTER 6**

### **Linguistic Prolegomena V– Part of the syndrome: nominalisation in ancient Greek**

#### **6.1 Location of nominalisation within lexicogrammatical metaphor**

One of the key notions of LGM is that LGM is perceived as such in relation to other discourse types through the detection of 'incongruence'– that is, one discourse type realises semantic configurations by different lexicogrammatical selections to historically prior realisational patterns. It is assumed that certain kinds of text develop at later times to other ones, and LGM is a way of characterising the different realisation patterns that are developed in those later discourse types, and which are recapitulated in the logogenetic unfolding of those texts, and in the ontogenetic apprenticing of individuals into producing and comprehending those kinds of texts.

Evidence for this has been borne out by linguistic studies in the functional tradition of scientific discourse in English. Such discourses display the two properties that have been discussed above. Firstly, they display consistent lexicogrammatical patterns, which may be collectively be described as construing experience through an abstract model of 'things and relations'<sup>199</sup>. This has an important role in the development of 'technical' and 'abstract' modes of meaning, and the development of knowledge in

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<sup>199</sup> This model of the lexicogrammar of scientific discourse in English is argued in Halliday (1998).

taxonomised, abstracted and technical 'knowledge'<sup>200</sup>. In turn, the need for scientific discourses to build taxonomies of concepts, and to build complex concepts in taxonomic fashion, increases the probability that a 'things and relations' pattern of lexicogrammar will be used. Secondly, we recognise this particular 'things and relations' model only in comparison with 'non-scientific' texts that do not use this lexicogrammatical construal as frequently or consistently<sup>201</sup>. Nominalisation in English– loosely, the process of turning processes into things– plays a very important role in this 'things and relations' model of experience. Nominalisation is a prominent feature of ancient Greek, particularly from the classical period in Athens onwards, so it is important to consider whether it plays a role in a 'things and relations' model of lexicogrammar. But first we need to exemplify what has been summarised above for English in order to know precisely what we are looking for.

### **6.1.1 The 'things and relations' clause model in scientific discourse**

In the functional tradition of linguistics, there tends to be an interest in the language of specific registers or genres. This is largely the product of the approach which functional linguistics brings to the study of language; it is applied to shed light on specific language problems or to provide answers to questions asked about a particular text or set of related texts. However, such studies are not merely descriptions and nothing more. The SFL apparatus is also a tool for modelling as well

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<sup>200</sup> See *ibid.*, and also Martin (1993). However, it is also important to note that taxonomic relations are not confined to scientific, bureaucratic or academic writing– see the taxonomic relations built up in 'Helena's Story' in Martin and Rose (2003) p.92-97, and more generally p.91-103. The story referred to does not function simply as a 'narrative', but also as an 'exemplum' to draw attention to and reformulate pertinent aspects of moral and social behaviour in a particular context– see *ibid.*, p.8.

<sup>201</sup> This statement has to be qualified, as one should not preclude the 'things and relations' model of lexicogrammar 'spilling over' into other discourse types. Specifically, the development of abstract 'things' is a prominent feature of humanities discourse. For a full elucidation of this, see Martin (1993) p.212-220.

as for description<sup>202</sup>. Particularly with the use of system networks for representing the relationships between linguistic phenomena in a text or set of texts, the description effectively constitutes a model of those texts. In other words, a system network based on SFL theory models what is happening in (a) text(s) in its / their context, and therefore is a powerful resource for modelling linguistic organisation and behaviour.

This approach is applied to the language of different contexts and texts, and, in this case, the application of functional linguistics to the description of theorising language in ancient Greek. We hope that, in describing texts associated with scientific contexts in ancient Greek, we produce a model of how those texts are organised, with respect to the strata to which the description is oriented. If in addition one adopts a Whorfian perspective on the relationship between language and thought, then we are also modelling the cognitive patterns that underlie, and are formed by, the production of those texts. We therefore model texts in order to model the semiotic processes that underlie thought. Nominalisation in ancient Greek scientific texts can be described with reference to the clauses in which they are located, and then to what implications nominalisation has for other metafunctions and strata.

In English, the typical lexicogrammatical pattern found in a clause in scientific discourse is of 'things' that are involved in a relational process. Although the studies that propose this model do not say this explicitly, this pattern is particularly prominent in those parts of scientific discourse that attempt to summarise, explain or interpret data with a view to formulating a theory or hypothesis about a set of related phenomena in the experienced world– those parts of the discourse that most explicitly make a conscious reflection on, or reconstrual of, what is experienced or observed. A short example from a cognitive science review paper illustrates these features.

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<sup>202</sup> For a full elucidation of how system networks both model and describe texts, see Butt and Matthiessen (draft, 2000) p.18-46, which outlines the basic properties of system networks and gives more substantial detail as to how the network relates language system to language instance.



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Johnson MH (2001) 'Functional brain development in humans.' *Nature Reviews Neuroscience* 2 p.475-483

Human postnatal functional brain development	is not	just	the passive unfolding of [a maturational sequence],
Carrier	Process: relational: intensive + ascriptive		Attribute

but	is	an [activity-dependent] process,  [albeit guided and constrained by [initial biases] ]  .
conjunction	Process: relational: intensive + ascriptive	Attribute

The 'things and relations' configuration of the clauses is quite clearly in evidence here. There is an obvious degree of complexity in the 'things' that should be accounted for—however, this will be left till later in the discussion. However this complexity does not obscure the fact that there is one entity linked to another within the space of a clause through a relational attributive process, giving rise to a Carrier / Attribute pairing within clauses. The effect of this is to build knowledge in a 'building block' fashion and to compartmentalise this knowledge in a category-like fashion. More will be said about this later.

Returning to the previous point about complexity, it is important to note that the nominal groups that function as Carrier and Attribute are complex in a certain way. Firstly, they allow for substantial modification, particularly in the case of the first clause the use of multiple Classifiers, allowing for further categorisation of nominal

entities at the level of the group. The other way of introducing complexity into the nominal group is through using embedded clauses and groups as modifiers within the group. This is particularly relevant to nominalisation and the potentials that it provides– this can be seen with the use of the nominalisations *development* and *process* in the example above.

It should be noted from the above example that the complexity possible within the nominal group and the relational process configuration of the ranking clauses as a whole achieve similar semiotic results, and constitute similar kinds of linguistic behaviour– that of categorisation. Therefore one can say that, in scientific discourse in English, the phenomena of nominalisation and the relational structure of clauses are likely to be interrelated phenomena, and unpacking the clauses might reveal this relationship in more detail. The results of the unpacking will be discussed below.

### **6.1.2 Interdependence between nominalisation and LGM**

The important point to note is that one cannot talk about nominalisation in isolation to other linguistic phenomena. It is very much part of the whole process of lexicogrammatical metaphor in scientific discourse. In the above example, the first clause can be reworded as follows:

After they are born, the brains of humans begin to develop with respect to what they can do when they have fully matured, but they do not mature solely by one step following after the other without being affected by something that happens outside the brain

There are several things to note about this unpacking, both about the process of unpacking, and about what results from the unpacking, and it is the latter to which initial focus is given. The result of the unpacking is very much in line with what has been observed in similar unpacking of clauses in scientific discourse. Some of the nominalisations (*development*, *maturation*) are 'turned into' the equivalent, morphologically related processes in the lexis; others, such as *sequence*, have to be

unpacked with the use of a morphologically unrelated process with a Circumstance. One nominalisation– *unfolding*– is very hard to unpack without some redundancy in respect to the other processes, and here it has been left out of the process of unpacking.

The unpacking is not only confined to the heads of the nominal groups, but also to those group's Classifiers or Epithets which often have to be converted into full ranking or embedded clauses (*postnatal* for *After they are born*, *functional* for *with respect to what they can do*) which become either Circumstance within a clause, or a clause that bears an enhancing (causal or conditional) relation to other clauses. One of the Epithets, *passive*, requires quite extensive unpacking– *without being affected by something happening outside the brain*– which in itself indicates that this term has taken on quite a specialised meaning built up within this discourse.

Looking at this unpacking synoptically, we see that we have dramatically increased the number and kinds of processes, compared with the one relational process in a ranking clause in the original example. At the same time we have tried to reduce the degree of nominalisation in the unpacking. This suggests that nominalisation and process number and variety are in an 'inverse relationship' to each other. This in turn suggests that nominalisation is not a linguistic phenomenon that occurs in isolation, but is intimately linked to what is happening lexicogrammatically in one or more clauses in a text. Therefore nominalisation is squarely located within the process of lexicogrammatical metaphor, and therefore has to be considered within that context. If one accepts that lexis and grammar are on two ends of a continuum at the level of wording– as the term *lexicogrammar* implies– then this conclusion should not be surprising.

Further consideration should be given to the process of unpacking. Unpacking of clauses such as this often seems difficult and uncertain to the 'unpacker', and this should be evident from the unpacking attempted above. One starts out with the

guiding principle of 'preserving sense'— that the unpacked version should be semantically 'identical' to the original. But it soon becomes evident that strict adherence to this principle is very problematic. Other observers may have cause to believe that the unpacking suggested above is unsatisfactory in some way, and then attempt to produce an alternative unpacking of their own, only to have fault found with it by others. The specific reasons for this are complex, though, with detailed analysis of the linguistic phenomena, these can be teased out. However, a more general point can be made through the process of unpacking. It serves to illustrate that such unpacking is not simply rewording— it is also constructing new meanings. Therefore LGM, and therefore nominalisation, is a process of both rewording and 're-meaning'<sup>203</sup>, and therefore a fundamental means, when considering the ideational aspect of language, of reconstruing experience. Again, if one accepts that there is a 'natural' relationship between the strata of lexicogrammar and semantics, this comes as no surprise.

## **6.2 A definition of nominalisation according to linguistic level**

The phenomenon of nominalisation is not an issue that has come out of modern linguistics. It has long been noted that languages often turn 'events' into 'things', well before any notion of grammatical metaphor came into linguistic theory, and most of the comprehensive ancient Greek grammars of the twentieth century do provide some account of it. However, as will be shown, nominalisation is a constellation of linguistic processes that occur at various levels and strata of a language. It therefore is of benefit to make clear the concept of nominalisation with reference to the stratal organisation of language, and to determine which processes occur at which strata.

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<sup>203</sup> This is a term borrowed from Halliday (1998) p.226-227, where the same point is made as is being made in this present discussion.

Essentially, one can define nominalisation with respect to the lexicogrammatical and semantic strata. Within lexicogrammar, we can look at it in terms of rank (or structural) constituency or functional configuration. In the former, we are essentially looking at the smallest structural constituents of a clause that have a grammatical role– the morphemes– and so we can look at nominalisations in terms of their morphological characteristics. In terms of functional constituency, we look at what functional role a nominalisation plays in a clause, and this can be considered in terms of the metafunctions– transitivity roles, mood roles, and Theme / Rheme and Information roles. The usual notion of nominalisation being a process of 'turning events into things' foregrounds the experiential aspect of language; however one should not exclude the possibility that there are consequences in the interpersonal and textual metafunctions. In the semantic stratum, we are interested in how a given nominalisation attains the status of an enduring, stable 'discourse Thing' that takes its place in a relational conceptual network of other 'things' and is involved in a variety of other processes in a given text or set of texts. However, the discussion will initially focus on morphology, as this serves as a convenient entry point into a fuller multi-stratal elucidation of nominalisation, and because the morphological system of ancient Greek exploits this to a considerable degree.

### **6.2.1. Morphological– characteristic morphemes**

The important thing to note about the morphological phenomena associated with nominalisation in ancient Greek is that they are extensive and, from the purely morphological point of view– aside from how they function in a clause and text– they allow nominalisation to occur in a regular and productive way. They are extensive because they make use of the usual systems of word formation in the language, and they are regular because the words so formed participate in the inflectional morphological systems that realise the various functions of lexicogrammar in a given clause. Before describing in detail what particular morphemes are involved, it is useful to explain some basic principles about the structural constituency of Greek words.

*6.2.1.1 Roots, stems, affixes, full words*

From the perspective of morphology, the usual description of ancient Greek word formation, and word formation in IE languages in general, centres around the concepts of roots, stems and affixes<sup>204</sup>. As traditionally described, roots are considered to be that class of morphemes that realise certain 'semantic concepts' irrespective of word class. Certain sets of affixes are associated with these roots to form word stems. It is difficult to describe the function of these affixes in a general way, but they appear to have a role in modifying the sense that the root carries. It may appear that part of the function of these stem-forming affixes, at least in the earlier evolution of Greek and the parent Indo-European language, may be to 'assign' a root to a general word class such as verb or noun. However, this position cannot be justified in those Greek texts left to us, as many stems appear to be able to take on either nominal or verbal morphology in their inflections. If stem-forming affixes did indeed specify word class originally, this function has been long overtaken by subsequent diachronic change. It is also possible that the formal distinction between the concept of root and stem was introduced in part to investigate and explain analogies and 'shared concepts' between IE languages.

Various other sets of morphemes (the so-called 'inflectional morphemes') are added to word stems to specify the grammatical role that the word fulfils in the clause in which it occurs. This can be set out in a simple form to indicate solely the structural configuration of words as follows:

word root ('semantic concept')

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<sup>204</sup> This is a conception of IE word morphology that is well established in the traditional grammars, and is continued into modern IE comparative linguistics– an example in traditional grammars is found in Smyth and Messing (1974) p.44-45, and the modern continuation of this idea can be found in Beekes (1996) p.162-167.

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word root + affix(es) (suffix or infix) → word stem (modifying sense of root)

word stem + affix(es) (prefix / infix / suffix) → word (realising specific lexical and grammatical roles)

This can be further illustrated with an example from Greek:

/dô-/ (word root 'giving')

/dô-/ + /-r-/ (word stem 'gift')	→ dô-r-on 'gift'	<div style="display: flex; align-items: center; justify-content: center;"> <div style="font-size: 4em; margin-right: 10px;">}</div> <div>             words with specific lexical and gram- matical roles </div> </div>
	dô-r-eomai 'I give a gift'	
	dô-r-êma 'thing given as a gift'	
	dô-r-êtês 'benefactor'	
(di-) + -dô- (word stem 'giving')	→ di-dô-mi 'I give'	
	e-dô-s-a 'I gave'	
	e-dô-thê 'it was given'	

What is apparent in ancient Greek is that there are both systems of roots and systems of morphemes to form stems, as well those morphemes associated with specific word classes. One of the consequences of this is that there is a *potential* for these roots and morphemes to combine with each other in a huge variety of ways. This means, in turn, there is a large potential for roots and stems to be 'assigned' to any word class. This has great consequences for nominalisation when considered purely from the morphological perspective—potentially any word root can be transcategorised or nominalised through formation of either, or both, word stems and full words. In short, any root can, in theory, be attached to (a) particular morpheme(s) to assign it to the class of nouns. But, in the actual operation of the language systems, this statement needs to be heavily qualified.

### **6.2.2. Word formation in the context of the higher linguistic strata**

This, of course, is considering the issue solely from what possibilities the morphological systems of Greek will allow, as an exercise in what is 'mathematically' or 'factorially' possible. In practice, however, it is only certain roots and stems that are assigned to noun status. Of these, some are exclusively associated with noun status, while others can be associated with nominal and other classes, of which a proportion are associated with both nominal and verbal status. When considering those that can be either noun or verb, the probability that they will be one rather than the other is not 50 percent or 'fifty-fifty'; when looking at the instances of words containing that particular root or stem, it is more likely that one option has more probability of being selected than the other.

To fully explain why these probabilities of word roots being associated with different word classes are not evenly distributed is beyond the scope of this chapter and thesis. However at this point we can hypothesise where the explanation might lie without simply stating that 'that is just the way the language has turned out to be'. We have to be mindful that morphology, and structural and functional lexicogrammar in general, is located within the environments of the higher linguistic strata– those of semantics and context of situation and culture. We can hypothesise that these higher strata, as the environments for the operation of the lower strata, are crucial in influencing the probabilities of selections within the lower strata, such as in lexicogrammar, and, within it, morphology. This position can be stated in alternative terms and explicated further. It is expected that certain patterns of cultural activity within a linguistic community, in themselves and as applied to specific instances of community life, are manifested in certain kinds and patterns of meaning. These patterns of meaning, for their material expression in either sound or writing, require the configuration of the lexicogrammar, and of morphological systems within it, in a certain way. This necessarily influences the probabilities associated with options in those systems. We therefore expect that certain genres or registers, and their typical patterns of meaning



are more likely to 'drive' some word roots to be nominalised rather than others, and that the probability that a certain word root is nominalised varies between genres and registers. As the various linguistic strata are subject to change through time (phylogenetic, ontogenetic, and logogenetic), we expect these probabilities to change accordingly.

These kinds of influences do not operate in one direction. The organisation of the lower levels, because the higher levels are dependent on them for their expression, is likely to feed back into the higher levels and support the propagation and persistence of those patterns of meaning and culture. The semogenic power of lexicogrammar has been referred to previously, and it is the most obvious example of a lower stratum affecting a higher one<sup>205</sup>, but we can extend this idea to think that certain aspects of lexicogrammar are able to feed back into semantic patterns and therefore into forms of cultural activity. For instance, nominalisation typically associated with a certain genre or register (such as, for example, the biological sciences) is likely to be important in supporting those cultural patterns, and a means of structuring their meanings. To this end, regular productive morphological resources in the language can be used to nominalise and therefore contribute to meaning and context. We have said that the probabilities within morphological systems are 'skewed' with respect to the patterns of meaning and context that they realise; however, this does not exclude the *de novo*, logogenetic emergence of nominalised forms within a specific text that 'buck against' already established morphological tendencies. This is why it is important to draw attention to the 'freely combinable' aspect of word formation in ancient Greek, while not denying that it operates within constraints established by the higher linguistic strata.

The other reason to highlight 'free combination' is that it provides supporting evidence that things and events are not distinguished from each other on a 'fundamental' basis that has little to do with the structure and function of language, and that the distinctions are fluid and changing. It has been a temptation throughout

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<sup>205</sup> See Halliday and Matthiessen (1999) p.17-22 for the notion of semogenesis.

linguistic study to say that lexemic or vocabulary organisation is based on a fundamental distinction between things and events, and this distinction is prior to language development and learning. The nature of the systems described above, and their susceptibility to change, would undermine this view to some degree. This issue will be considered in more detail later.

### **6.2.3. Descriptions of structure as an explanation of structure**

Stating the basic principles of word formation is, and has been acknowledged to be, a quite artificial exercise<sup>206</sup>. It is artificial in two respects. Firstly, when we identify structural constituents, the elements are identified and described as if they are 'stand-alone' entities. This is not the case. They can only be defined relationally– that is, with reference to the other structural constituents of the word in which they are located; in text, they do not, and cannot, stand on their own. The elements are identified only for the purposes of analysis; in particular, particular elements are identified because they appear to have 'cognates' in other languages in the IE family, as the following examples illustrate with the words for 'father' and 'know' in different languages of the IE group<sup>207</sup>:

'father'

<b>Sanskrit</b>	<u>p</u> itar		Sinhala	<u>th</u> athi
<b>Avestan</b>	<u>p</u> itar			
<b>Tocharian A / B</b>	<u>p</u> acar / <u>p</u> acer			

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<sup>206</sup> This point is acknowledged in the traditional grammars– for example, see Smyth and Messing (1974) p.45.

<sup>207</sup> The words from the ancient languages are taken from Chantraine (1968) p. 225, 864-865.

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<b>Gothic</b>	<u>f</u> adar		<b>German</b>	<u>F</u> ater
			<b>English</b>	<u>f</u> ather
<b>Ancient Greek</b>	<u>p</u> atêr			
<b>Latin</b>	<u>p</u> ater		<b>French</b>	<u>p</u> ère

'know'

<b>Ancient Greek</b>	g <u>ign</u> ôsko, egnôsa		<b>Modern Greek</b>	<u>gn</u> ôrizo
<b>Persian</b>	xš <u>n</u> assahiy			
<b>Sanskrit</b>	j <u>n</u> ata-		<b>Sinhala</b>	<u>gn</u> ana
<b>Pali</b>	j <u>a</u> nati			
<b>Old Church Slavonic</b>	<u>zn</u> ati		<b>Russian</b>	<u>z</u> nanye
			<b>Polish</b>	<u>zn</u> ác
<b>Latin</b>	cogn <u>o</u> sco, ign <u>o</u> ro, not <u>u</u> s		<b>French</b>	con <u>na</u> ître
			<b>Italian</b>	cogn <u>i</u> zione
			<b>Portuguese</b>	con <u>h</u> ecimento
<b>Lithuanian</b>	paz <u>į</u> ntas			
<b>Old English</b>	<u>cn</u> awan		<b>English</b>	<u>k</u> now
<b>Gothic</b>	<u>k</u> unnan		<b>Danish / Norwegian</b>	<u>k</u> jenne
<b>Old High German</b>	<u>k</u> ennan		<b>Swedish</b>	<u>k</u> änne

All of the above words are thought to share, allowing for diachronic change in phonological systems over time, to have a common morphological element that realises the semantic concept of 'father' which ultimately derives from proto-Indo-European, whose forms have been putatively reconstructed as *\*/pḗter-/* and *\*/gnḗ-/*<sup>208</sup>. The identification of this element is in part for the purposes of diachronic reconstruction and for the identification of cognate elements in related languages. It is also clear from these examples that this particular element cannot stand alone, but must be associated with other morphemes that realise various lexicogrammatical functions. This example also shows the motivation for picking out various elements of morphological structure– to support particular lines of linguistic enquiry, such as in the comparative IE linguistic tradition.

The second reason why the identification of separate morphemes is an artificial exercise is that such descriptions do not in themselves purport to be an explanation of how words are formed in the production or comprehension of spoken or written language; instead, they are descriptions of the *products* of the linguistic process. Such descriptions have to be accompanied by a theory of how they come to realise the higher strata of language and / or how they are produced by the various language-associated neurological and articulatory systems, in order to have any explanatory power. It is mistaken to assume that a statement about any perceived structural regularity between word instances in a language constitutes an explanation of how those words are comprehended or produced<sup>209</sup>. It is in this light that the previous discussion of morphemes should be viewed– that it is simply to shed light on the structure of words in Greek as they are. This is intended to reflect primarily the structural similarities and dissimilarities that we see in the lexis of Greek.

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<sup>208</sup> The symbol *ḗ* represents an unrounded central vowel– see Beekes (1996) p.269.

<sup>209</sup> For an explication of this issue, see Aitchison (1994) p.73-81 in the discussion of the idea of componential 'semantic primitives' in relation to word formation.

#### **6.2.4. Nominalisation at the level of morphology– the collocation of nominal and verbal morphemes**

It is now possible to proceed to describe how nominalisation may be characterised at the level of morphology. This is being done with a view to identifying a selection of stems and additional affixes that are typically associated with the phenomenon of nominalisation. It is hoped that this in turn will illustrate that there are productive, regular morphological resources that may serve to realise the phenomenon of 'turning events into things'. Later on it will be argued that there are nominalisations in Greek that do not appear to be realised through these productive systems, and their identification as such relies on observing their effects in the functional lexicogrammatical roles of the clause or at the level of semantics. However, the focus at present will be on those items of wording that do exhibit the morphological features that are typically associated with nominalisation. Of course, this is dependent on having a satisfactory characterisation of the phenomenon at the higher levels of lexicogrammar and semantics, and this will be discussed more fully in turn. At this present time we will characterise nominalisation at these levels in only sufficient detail to distinguish it from the related phenomenon of transcategorisation.

##### *6.2.4.1. Nominalisation and transcategorisation*

To make the relationship between the two concepts clear, nominalisation refers to only a certain kind of transcategorisation. The term 'transcategorisation' simply refers to the perceived shifting of a lexical item from one word class to the other– word class being determined by a word's structural configuration<sup>210</sup>. A few examples from Greek will illustrate this point.

(1) /gi-/gnô-/sk-/ô 'I get to know' (verb)

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<sup>210</sup> This interpretation of the term 'transcategorisation' is in line with that of Derewianka (1995) p.229-230.

- (7) /gnô-/s-/omai 'I will know' (verb)
- (8) /gnô-/mê 'faculty of mental discernment' or 'opinion' (noun)
- (9) /gnô-/môn 'interpreter (of omens)' (noun)
- (10) /gnô-/sis 'process of investigation or inquiry' or 'result of investigation' (noun)
- (11) /gnô-/tos 'well-known, familiar' (adjective)
- (12) /gnô-/tos 'family relative' (noun)
- (13) /gnô-/r-/i-/sdô 'I make known' (verb)
- (14) /gnô-/r-/i-/mos 'famous, distinguished' (adjective)
- (15) /gnô-/r-/i-/sis 'making something known', 'getting to know' (noun)

With reference to the strata, we can locate this phenomenon at the level of morphology in ancient Greek, since the morphemes are responsible for the structural determination of nouns, verbs and other word classes.

All of the above words share the common root /gnô-/, but they belong to different word classes by virtue of having different stems and affixes. If one were to take the view that certain word forms developed out of other ones over time (typically phylogenetic, but this can also include ontogenetic or logogenetic time), this would be termed 'transcategorisation'. Of those word forms that are thought to have developed out of others, only some of these would be nominal forms that have developed out of verbal forms. This is one ground on which we can say that nominalisation at the morphological level is a subvariety of transcategorisation in general, and therefore not all transcategorisation is nominalisation<sup>211</sup>.

But we need to go further in fully relating transcategorisation and nominalisation at the morphological level, and to do this we need to invoke the kind of realisation relationship between the morphology and the higher linguistic strata. We need to have some sense of what it is in the higher strata that is being realised– the turning of a process into a thing. Consequently, to test whether these forms are counted as

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<sup>211</sup> This is the argument also put forward by Halliday (1998) p.199-200 and Halliday and Matthiessen (1999) p.242-244.

nominalisations, one asks 'in this text in its context, can this form be unpacked with a full clause, or can it be done with just a group?'<sup>212</sup>. If the former is the case, then the noun form is a nominalisation. As a result, examples (5) and (10) from above may qualify as nominalisations in appropriate contexts. In (5), the form *gnôsis* would not be counted as a nominalisation if the sense appropriate for the co-text and context is 'result of investigation'. This reinforces the notion that the genre and register, as well as the semantics and lexicogrammar of a text is an important factor in the determination of a nominalisation within that text. The other observation that can be made is that the morphological resources associated with nominalisation are not confined to realising nominalisation, but can be involved in other kinds of transcategorisation.

#### *6.2.4.2. A synopsis of nominalising morphology in ancient Greek*

Following from the previous discussion, we will now focus attention on those morphological resources that are deployed in the realisation on nominalisation. A detailed discussion and exemplification in text of each kind of nominalisation is beyond the scope of this thesis. The present synoptic discussion is intended to convey the essential features of the morphological systems– their 'regular and productive' potential, and how they appear to contain morphemes that are found in both nominal and verbal forms.

##### *6.2.4.2.1. Morphemic compounding*

One particular feature of the morphology in Greek is the potential for morphemic compounding. Each aspect of the word form (root, stem, and inflectional affix) can

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<sup>212</sup> This probe follows what is suggested for distinguishing nominalisation from other forms of transcategorisation in Derewianka (1995) p.230.

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consist of a compound of morphemes. Each of these will be demonstrated in turn with examples.

Root compounding:

/leg-/ 'saying, speaking' (simple root), eg. *legô* 'I speak', *logos* 'word, discourse, argument'

+

/graph-/ 'writing' (simple root), eg. *graphô* 'I write'

→ /leg-/ /-graph-/      eg. *logograph-os* 'prose writer, speechwriter' (noun)  
'writing discourse'      *logograph-eô* 'be a speechwriter' (verb)  
                                 *logograph-ia* 'prose-writing' (noun)

Stem compounding:

/hêg-/ 'leading, guiding' (simple root), eg. *hêg-eomai* 'I lead'

→ /hêg-/ /-emon-/      eg.      *hêgemôn* 'leader' (noun)  
                                 (stem)      *hêgemonia* 'dynastic or imperial rule', 'political  
                                 supremacy' (noun)

This stem can have further compounding:

→ /hêg-/ /-emon-/ /-eu-/      eg.      *hêgemoneuô* 'be in command' (verb)  
   *hêgemoneus* '(Roman) governor' (noun)

The /-eu-/ morpheme cannot be attached to the root in the absence of /-emon-/.



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ancient Greek*

Stems can also be formed with prefixes that belong to the class of prepositions. The stem so formed therefore contains an admixture of morphemes that have origins in different word classes. An example is

pheugô (root /phug-/) 'I flee'

katapheugô 'take refuge'

phugê 'flight'

kataphugê 'place of refuge'

agô 'lead, drive'

anagomai 'drive into exile' (prepositional prefix *ana* 'up')

katagô 'go out to sea' (prepositional prefix *kata* 'down')

Inflection compounding:

There is also compounding of the other morphemes– the inflections– that are not directly involved in roots or stems. This is particularly the case with the inflections for verbs, where the inflectional ending must realise several functions such as tense, aspect and modality, and thus the inflection is a compound of the morphemes that realise these functions:

kôleu/ô 'I prevent' (present indicative)

kôleu/s/ô 'I will prevent' (future indicative)

e/kôleu/s/a 'I prevented' (simple past indicative)

kôleu/oi/mi 'I would / might be preventing' (present optative)

kôleu/s/oi/mi 'I would/ might be about to prevent' (future optative)

kôleu/s/ai/mi 'I would / might prevent' (simple past optative)

There is one part of the inflectional paradigm traditionally associated with the verb whose inflections are a compound of verbal and nominal morphemes– the participle.

Participial forms have both verbal (tense and aspect) and nominal (number, gender, case) morphemes in their inflections:

kôleu/ôn (present active participle, masculine nominative singular)

kôleu/ousa (present active participle, feminine nominative singular)

kôleu/ontos (present active participle, masculine genitive singular)

kôleu/ousôn (present active participle, feminine genitive plural)

kôleu/s -ôn / -ousa / -ontos / -ousôn (future active participle forms)

kôleu/s -as / -asa / -santos / -sasôn (simple past active participle forms)

The morphological nature of the participle is therefore a 'hybrid' between nominal and verbal forms. Given that this hybridity is likely to feed back into the higher strata, this increases the probability that at the level of text– that is, at the semantic stratum– there is ambiguity between 'things' and 'events' at the higher strata, and that consequently there is a certain fluidity in this categorisation. Other members of the verbal paradigm that display similar ambiguity are the verbal adjectives that combine a verbal root with a stem-forming suffix that indicates modality of probability or obligation, to which nominal inflections are added<sup>213</sup>.

The consequences of this morphemic compounding can be summarised as follows. It supports the existence of a potential for 'free combination' between a large variety of morphemes, set against the background of generic, registral, semantic and lexicogrammatical 'settings' of a text that make certain morphemic combinations more likely than others. It also demonstrates the potential for drift and ambiguity between noun and verb forms, which may reflect or be a realisation of drift and ambiguity between processes and participants, or things and events at the lexicogrammatical and semantic strata respectively. This further undermines any argument for an extra-linguistically based distinction between the two categories.

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<sup>213</sup> For an example of this phenomenon, see Smyth and Messing (1974) p.112, 141-142 for examples from the various verbal paradigms.

#### 6.2.4.2.2. Morphemes associated with nominalisation

The morphemes associated with nominalisation fall into two categories. The first is where, very loosely speaking in a 'stratum-naïve' fashion, morphemes turn processes into things, commonly referred to in the traditional grammars as 'abstract substantives'<sup>214</sup>. This term as used in the traditional grammars is ambiguous, as it does not specify the level or stratum at which the abstraction is taking place. As a consequence, abstraction will be respecified later in the discussion as a phenomenon that occurs at the higher levels or ranks of lexicogrammar and in the semantic stratum. For the present discussion, this category might be renamed 'integrative nominalisation'. This category term is intended to denote those morphological systems that typically realise processes that involve a change in state over time as a single entity, analogous to the term 'integration' in mathematical two-dimensional calculus.

The second category involves those morphemes that 'turn adjectives into nouns'. Thus these forms typically express what might be called 'qualities'<sup>215</sup>. The are considered here as a form of nominalisation because they are essentially nominalisations of a process of categorisation or equivalence– in functional terms, a relational process. Such nominalisations may be unpacked as '(the quality of) being x'. This phenomenon is not traditionally considered to be nominalisation. However, because the way that languages categorise entities is considered in the functional tradition to be one of the broad types of processes, it should be considered a form of nominalisation as it can therefore be characterised as 'turning a relational process into a thing'. This type of nominalisation can be termed 'stative nominalisation'. These two categories will now be exemplified.

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<sup>214</sup> For example, see Smyth and Messing (1974) p.230.

<sup>215</sup> See Smyth and Messing (1974) p.231.

#### 6.2.4.2.3. Integrative nominalisation

Morpheme	Verb	Nominalisation
/-ti-/	<i>peithô</i> (stem /pith-/) 'I persuade, I believe'; <i>peithomai</i> 'I am persuaded, I believe'	<i>pistis</i> 'faith'
/-si-/	<i>legô</i> 'I say, speak'	<i>lexis</i> 'act of speaking', 'diction / style of speaking'
/-sia/	<i>dokimasdô</i> 'I test out, scrutinise, examine', 'I approve after scrutiny'	<i>dokimasîa</i> 'examination', 'scrutiny'
/-mo-/	<i>diôkô</i> 'I pursue'	<i>diôgmos</i> 'pursuit'
/-ma/	<i>spâomai</i> 'I rend, wrench, sprain'	<i>spasma</i> 'sprain, spasm, convulsion'
/-mê/	<i>gignôskô</i> 'I know, am cognisant of', 'I make a judgement'	<i>gnômê</i> 'knowledge', 'opinion'
	<i>mimnêiskô</i> 'I remind'	<i>mnêmê</i> 'memory, recollection'
/-es-/	<i>dēomai</i> 'I fear, am afraid'	<i>dēos</i> (de-es) 'fear'
/-ia/	<i>mainomai</i> 'rave, rage'	<i>manîa</i> 'madness'

#### 6.2.4.2.4. Stative nominalisation

Morpheme	Adjective	Nominalisation

/-ia/	<i>eunōos</i> / <i>eunous</i> 'kind'	<i>eunoia</i> 'kindness'
	<i>sophos</i> 'wise'	<i>sophia</i> 'wisdom'
/-sunê/	<i>dikaïos</i> 'just'	<i>dikaïosunê</i> 'justice'
/-tês/	<i>nēos</i> 'young'	<i>nēotês</i> 'youth'
/-as/	<i>monos</i> 'single, alone'	<i>monas</i> 'unit'

### 6.2.5. Word group nominalisations

Having now viewed the morphological manifestations of nominalisation, we can now investigate it in the higher ranks of structurally characterised lexicogrammar. Again, there are two ways in which we can view these higher ranks or levels– in terms of structure or function. In the former, we are primarily interested in the structure of groups of words that might realise nominalisation. This is essentially the same perspective in which we regarded morphology– as a structural phenomenon– but now applied to groups of words instead of single words. The functional perspective will regard the function of nominalisation within these groups, and the function of these groups within the single clause.

Nominalisation cannot only be realised in structural lexicogrammar in terms of morphemic combinations. There are also resources for combining words of different word classes to stand as nominalisations. The general pattern among these forms is that the definite article (typically associated with nominal forms) is associated with forms from other word classes.

6.2.5.1. *Definite article and infinitive*<sup>216</sup> (*articular infinitive*)

This is a common structural realisation for nominalisation, where the neuter definite article is associated with the infinitive of a verb. Examples will be given below.

	<i>to</i>	[[ <i>poiein</i> ]]
Constituent words	Definite article	Present infinitive
Functional nominal group configuration	Deictic	Thing (with embedded clause)
	'making'	

Hippocratic Corpus *Physician 1*

ta de peri tên psukhên sôphrona [<sup>^</sup>dei einai], mê monon to sigan, alla kai peri ton bion panu eutakton

Regarding the doctor's mind, he must be prudent, not only in keeping silent, but also well-organised when it comes to his way of life.

This combination of article and infinitive combines the potential of both nominal and verbal forms in a certain way. The definite article carries nominal inflections, which are selected in relation to the other grammatical choices in the clause– in other words, the definite article in the group participates in the group's 'external' grammatical relations with other groups in the clause. The infinitival form of the verb has morphology indicating tense and voice, and, as a corollary to this, words or groups that other grammatical functions can be embedded in with the infinitive within the

<sup>216</sup> See Smyth and Messing (1974) p.450-453 for this phenomenon.

articular infinitive structure. In short, the infinitive is central to the 'internal' structural organisation and potential of the nominalising group<sup>217</sup>.

#### 6.2.5.2. *Definite article and neuter adjective*<sup>218</sup>

This is essentially the analogue of stative nominalisation, where the combination of article and neuter adjective express a quality. Again, this is taken to be an expression of a relational process. Examples are given below.

Hippocratic Corpus *Physician 1*

to gar propetes kai to prokheiron kataphroneitai  
the PART forward      the hasty

...for forwardness and hastiness is looked down upon

	to	[propetes [^ON / EINAI] ]
Constituent words	Definite article	Neuter adjective [^participle / infinitive of verb 'to be'] (embedded clause)
Functional nominal group configuration	Deictic	Thing
'forwardness'		

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<sup>217</sup> See Smyth and Messing (1974) p.450.

<sup>218</sup> See Smyth and Messing (1974) p.273-274.

	to	[[prokheiron [ ^ON / EINAI ] ]]
Constituent words	Definite article	Neuter adjective [ ^participle / infinitive of verb 'to be' ] (embedded clause)
Functional nominal group configuration	Deictic	Thing
'hastiness'		

The literal meaning of this construction is 'the thing being x', and so it follows that many of these constructions are an expression of a thing that exhibits or demonstrates a particular quality as expressed by the adjective and implied relational process. Particular examples are expressions such as *to koinon* 'the commonwealth of nation states' (literally, 'the thing being common / shared') where what is referred to is the political and administrative entity which has the quality of being shared amongst its constituent parts, rather than the word group having the sense of 'commonality'. Of course, these two ideas are metonymically related, and it is quite easy to see how there might be phylogenetic drift from one sense to the other, or one sense being selected over the other in different contexts.

#### *6.2.5.3. Definite article and neuter participle*

This is the extension of the phenomenon where participles have an equivalent function to adjectives with a relational process within nominal groups<sup>219</sup>. Therefore it follows that the neuter participle with definite article can therefore express nominalisation. Thucydides has a tendency to use this instead of the articular infinitive.

Thucydides 1.36

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<sup>219</sup> See Smyth and Messing (1974) p.292, 455-456.



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gnôôtō || to men dedios autou iskhun ekhon || tous enantious mallon phobêson, ||  
'the fearing'

to de tharsoun <<mê dexamenou>> asthenes on || pros iskhüontas tous ekhthrous  
adëesteron  
'the being of courage'

esomenon

*...let him recognise || that his fear carries strength with it || and frightens his enemies more, || but that his courage, << if he does not accept our arguments>>, is fallible || and is not enough against a strong enemy*

	<i>to</i>	[[ <i>dedios</i> ]]
Constituent words	Definite article	Present neuter participle
Functional nominal group configuration	Deictic	Thing (with embedded clause)
'fear'		

	<i>to</i>	[[ <i>tharsoun</i> ]]
Constituent words	Definite article	Present neuter participle
Functional nominal group configuration	Deictic	Thing (with embedded clause)
'courage'		

The reasons for choosing this construction in this particular text are not quite clear, but it may be to give particular psychological states more agency with effects on the behaviour of others, through the use of predominantly relational processes, and that

the participial constructions 'resonate' with these. The other reason that it might be preferred is that participles, because they have more overt indication of tense and aspect and their inflections have potential valency with participants (through the marking of case and number), foreground any associated notions of process characterised with reference to time, duration and context.

However, as with the adjectives, these constructions may sometimes carry a metonymically related sense and so, in those texts and contexts, do not qualify as nominalisations *per se*.

Thucydides 7.68

hama de [[ekhthrous amunasthai]] ekgenêsomenon hêmin || kai to legomenon pou hêdiston einai

...and at the same time, [[fending off the enemy]] will come to us || and would be the sweetest thing, as the saying goes...

Here, the participial construction carries the sense of 'that which is said'– in other words, the 'product of the process', metonymically related to the sense of a true nominalisation. Therefore, in the case of the adjectival and participial constructions, we have nominal group constructions that have the potential to realise both processes and their participants. This may in turn contribute to a 'fuzzy' distinction between things and events at the level of semantics, and this is part this fuzziness might be driven and supported by similar realisations in structural lexicogrammar. More will be said about this later.

#### 6.2.5.4. Definite article and adverb

This is a quite uncommon phenomenon, but is also an extension of the phenomenon where adverbs can often take on the function of adjectives in being modifiers of nominal groups<sup>220</sup>.

Hippocratic Corpus *Physician 5*

to takhēôs ê bradēôs homoiôs epaineitai

...swiftness and slowness is recommended equally

	<i>to</i>	<i>takhēôs</i> [ <i>^poïein?</i> ]    <i>ê</i> <i>bradēôs</i> [ <i>^poïein?</i> ]
Constituent words	Definite article	Two adverbs (in embedded clause complex?)
Functional nominal group configuration	Deictic	Thing (with embedded clause)
'swiftness and slowness'		

This usage is not surprising, given that the adverbs are in a sense 'derived' from the adjective takhus and bradus respectively. Adverbs are typically collocated with verbal groups onto which the category Process is mapped, and therefore some of the processual aspect of verbs might 'bleed into' them. It is not necessary to postulate the existence of an assumed or elided process for the interpretation of this clause. It may not be even desirable to assume ellipsis, as we cannot know exactly what process– or even process type– is being elided.

<sup>220</sup> See Smyth and Messing (1974) p.284.

### **6.2.6. The function of nominalisation in word groups**

We may now proceed to talk about the functional role that nominalisations (at both the level of morphology and word group structures) have at the level of a nominal group. In English, nominal groups typically have a functional nominal group structure as follows.

(Deictic) ^ (Numerative) ^ (Epithet) ^ (Classifier) ^ Thing ^ (Qualifier)

The functional roles that describe or further characterise the head (Epithet, Classifier and Qualifier) can take on embedded groups or clauses, which in turn have their own internal functional configuration. This allows nominal groups in ranking clauses to have considerable complexity. This, as has been well noted, is particularly exploited in scientific texts in English<sup>221</sup>; complexity in characterisation of the Head allows for 'things' (including nominalisations) to be placed into complex taxonomies along several dimensions, and for those things to have quite fine taxonomic specification through such qualification.

Similar complexity is possible in nominal groups in Greek. The functional configuration of the nominal group in Greek across all text types left to us can be stated as follows:

( [ (Demonstrative) ^ Deictic ] ) ^ (Numerative) ^ (Epithet) ^ (Classifier) ^ Thing ^ (Qualifier)

For the most part, the functional elements of the Greek nominal groups are equivalent to those in English. Because of the inflectional nature of the language, and the primacy of metre and prosody in some text types, there is less constraint on the ordering of these elements. With the presence of demonstratives that refer exo- or

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<sup>221</sup> See Halliday (1998) p.190-193.

endophorically, such as *houtos* 'this' or *ekeinos* 'that', these typically precede a co-occurring definite article to which the function of Deictic is mapped<sup>222</sup>. However, it may be the case that there are more constraints on ordering in particular text types, such as in prose writing and in dialogue. A full investigation of this is beyond the scope of this thesis, as we are primarily concerned with the 'nominalising' element of these word groups, and the relative ordering of the elements of the nominal group do not have much bearing on the functions of the nominalisation in clauses and text.

Within this structure, it is logical enough to locate morphological nominalisations at the Head, given that they all have a noun structure. If we consider the Thing to be the obligatory role in the nominal group, and consider in the above examples that these morphological nominalisations can stand as the sole constituents of the nominal group, then we can assign a nominalisation the role of Thing in the group. Any definite article that appears with this nominalisation fulfils the role of Deictic.

Many morphological nominalisations, *but not all*, are accompanied by the definite article<sup>223</sup>. This is in effect the extension of the typical use of the definite article to indicate a 'generic entity' (in its non-technical, non-linguistic sense), much as it does in modern IE languages such as French and German. It is used when reference is made by the nominalisation in co-text and context to a specific instance that is said to exhibit, contain or be equivalent to the nominalised entity. However, when they are not tied down to specific instances, certain nominalisations often omit the article. These are said to include those that denote moral qualities (for example, *sôphrosunê* 'wisdom, prudence', *manîa* 'madness'), spheres of intellectual or artistic endeavour (*mousikê* 'activity of making and / or performing music', *rhetorikê* 'oratory'), or (in an overlapping category) activities that are performed by certain sections of society (*gêôrgîa* 'agriculture'). The motivation for this omission of the definite article in these cases is unclear. However it may be the case that omission may reflect that these

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<sup>222</sup> See Smyth and Messing (1974) p.307-309.

<sup>223</sup> For a detailed account of the use of the definite article with 'abstract substantives', see Smyth and Messing (1974) p.287-289.

nominalisations originally could not be 'tied down' to specific ownership by individuals, either because they were thought to be imposed by the divine sphere (in the case of mental and moral qualities) or because such activities were the province of whole communities of people rather than individuals (intellectual, cultural and professional activities). However, this is purely speculative.

The nominalisation realised through word combinations into a word group needs to be considered in a complementary way– in terms of their functional configuration. They all have a definite article, which, as with the morphological nominalisations, does have a role as Deictic. However, the definite article has a function in determining the nominal status of the group<sup>224</sup>, since, without it, the 'bare' infinitive, participle or adjective only can realise their usual roles as verbs in hypotactic clauses or embedded as modifiers within a nominal group respectively. Hence the definite article has a role in realising the obligatory components of the nominal group– the Head.

Now the other element of the nominal group in these word group nominalisations (infinitive, participle and adjective) will be considered. Firstly, the definite article cannot stand on its own in a nominal group, except, in classical Athenian (Attic) prose as a demonstrative that refers anaphorically to participants in preceding clauses, or to refer to two groups of people in conjunction with particles– the 'some-others' antithesis, for example<sup>225</sup>. So we can expect that the other obligatory element of the word group nominalisation has a role in realising Head.

What realises Epithet and Classifier is likely to be found in any participants that are involved in the process conveyed by the verbal form. It is difficult to generalise as to what kinds of participants realise what kinds of nominal group functions, as such roles are only likely to become apparent logogenetically in a text; therefore we would expect these realisation relationships to be specific to text types or even individual texts. Consider the following example.

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<sup>224</sup> This view is supported by Smyth and Messing (1974) p.292

<sup>225</sup> Smyth and Messing (1974) p.286

Thucydides 2.32

eteichisthê de kai Atalantê hupo Athênaiôn phrouriôn || tou therous toutou teleutôntos, <<hê epi Lokrois tois Opountiōis nêsos erêmê proteron ousa,>> [tou |[mê lêistas <<ekplêontas ex Opountos kai tês allês Lokridos>> kakourgein tên Euboïan]] ].

Atalanta, <<an island that was formerly deserted, lying off Opuntian Lokris, >> was also fortified by the Athenians as a garrison || as this summer came to an end, [against the |[pirates <<sailing out from Opous and the rest of Lokris>> and inflicting damage on Euboa]] ]

<u>tou</u>	[mê lêistas <<ekplêontas ex Opountos kai tês allês Lokridos>> <u>kakourgein</u> tên Euboïan]]
Deictic	Thing

This sentence (one ranking clause) contains a word group nominalisation (*tou...kakourgein*) which includes a definite article and infinitive and fulfils the role of Circumstance: cause in the ranking clause<sup>226</sup>. This group is quite complex because the infinitive involves participants, and it contains another process (*ekplêontas*) which is hypotactically dependent on the infinitive with a logicosemantic enhancing relation of prior temporal succession. If we consider this complex nominal group, the participants involved in the infinitive serve to characterise the Thing (*tou...kakourgein*) in more detail. Thus this embedded entity acts as a complex Thing. It is perhaps worth noting that, in relation to the meanings of the co-text, this incident is described in relative isolation to other events in the narrative, so the complexity of this Thing may be related to the provision of new information which is nevertheless backgrounded to the main events of the narrative.

<sup>226</sup> The morphological case of this definite article is the genitive with the function of 'genitive of cause or purpose' or the 'ablative genitive' – see Smyth and Messing (1974) p.328-331.

For the word group nominalisations that involve verbal elements in their structure, a possible function mapping is as follows:

(insert diagram)

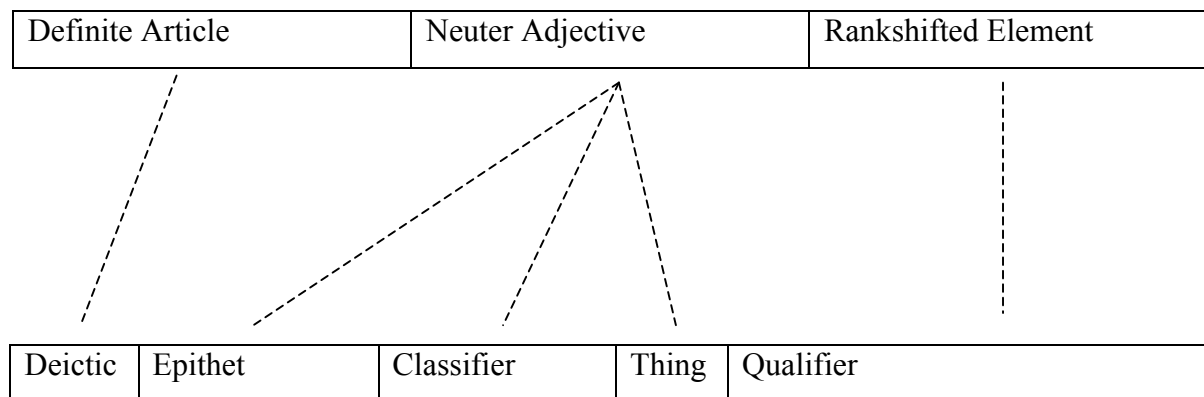
It can be seen from this diagram that there is the potential with these groups for a number of functional roles to be mapped onto relatively few structural elements in the word group.

In turn, a structure-function mapping for those word group nominalisations containing the neuter adjective can be proposed. It is well recognised that adjectives can stand as 'substantives'<sup>227</sup>. Therefore it follows from this use that they can stand as Thing in a nominal group in association with the definite article. The article, as with the other word group nominalisations, is necessary for the adjective to have any status of Thing, so the definite article has a role in functioning as Thing as well as Deictic. Adjectives do retain their role as Epithets and Classifier, as (depending on the particular type of adjective and the surrounding co-text and context) they are capable of intensification (either with inflections added to the adjective or with adverbs), and they can stand in a taxonomic relationship to other word group nominalisations in co-text. Adjectives, however, can be qualified with either an embedded clause or group as a separate element in the group, and so adjectives in these groups do not fulfil the function of Qualifier on their own. Thus we get a similar mapping as shown above.

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<sup>227</sup> See Smyth and Messing (1974) p.272-274.





### **6.2.7. The function of nominalised word groups in the clause**

We can now proceed to describing what role morphological and word group nominalisations have in the ranking clause. We can think of the clause in functional terms with respect to the complementary perspectives of the metafunctions. Usually in descriptions of nominalisation it seems natural to talk purely in terms of the ideational metafunction. We consider nominalisation usually in terms of turning processes into things, which implicitly foregrounds the ideational or 'representational' aspects of language. This thesis also foregrounds the ideational as its primary aim is to describe how an ancient Greek text construes complex phenomena such as epidemic disease. However it is important to bear in mind the other metafunctions. It is also worthwhile to consider nominalisation in terms of the interpersonal– how nominalisation fits into social negotiation and exchange clause by clause. Also importantly, we would want to investigate how nominalisation is involved in the packaging of information in clauses and in stretches of text.

Some of these issues have already been investigated in scientific discourse in English, in explorations of the grammatical metaphor of these text types. When considering nominalisations– as part of the syndrome of LGM– the main focus has been on their power to produce abstract entities and technical taxonomies through appropriate morphological resources and modification of the nominal groups in which they are

located (primarily ideational phenomena), and the ability to 'compact' information from preceding clauses and text into certain elements of Theme / Rheme and information structure of the clause (primarily textual)<sup>228</sup>. In line with this, the following discussion will foreground the ideational, but will also discuss salient aspects of the interpersonal and textual consequences of nominalisation.

#### *6.2.7.1. Ideational: nominalisation and relational process structures*

An important aspect of nominalisation that has been noted in studies of scientific English is that it is part of the 'syndrome' of lexical and grammatical features that go to make up the grammatical metaphor of these texts<sup>229</sup>. As such, we might expect that consistent nominalisation in a text will be associated with consistent selections in other aspects of the lexicogrammar. To this end, we will firstly look at the processes that are associated with the kinds of morphological and word group nominalisation we have considered so far. In particular, we are interested in whether the processes involved are similar to the processes in which English nominalisations play a part.

### 3 Nominalisation and relational processes

When we consider nominalisations in the Hippocratic corpus, we find that they are often involved in relational or existential processes. The following extract illustrates this well.

Hippocratic Corpus *Diseases* 1.13 An account of the pathophysiology of suppuration of the lung to explain its symptomatology

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<sup>228</sup> Martin (1993) and Halliday (1998) emphasise these functional aspects of nominalisation.

<sup>229</sup> For this notion of 'syndrome' see Halliday (1998) p.213-215.

ginetai d' empüos (1) || kai ên apo tês kephalês phlegma hoi katarrhûê es ton pleumona. || kai to (2) men prôton hôs ta polla lanthanei katarrheon (2), || kai bêkha (3) te parekhei leptên (3) kai to siêlon pikroteron oligôi tou êôthotos kai allote thermên leptên (4); || hotan de ho khronos prôiêi, || trêkhunetai te ho pleumôn || kai helkoutai esôthen hupo tou phlegmatos || enistamenou kai ensêpoumenou, || kai baros (5) te parekhei en toisi stêthesi (5) kai odunên oxêên kai emprosthen kai opisthen (6), || thermai (7) te oxuterai (7) empiptousin es to sôma. || kai pleumôn hupo tês thermasiês (8) agei es heôton ek pantos tou sômatos phlegma, kai malista ek tês kephalês; || hê de kephalê thermainomenê ek tou sômatos; || kai touto sêpomenon || ptuei hupopakhu; || hosôi d'an ho khronos prôiêi, || eilikrines puon ptuei, || kai hoi puretoi (9) oxuterôi ginontai, || kai hê bêx (10) puknê te kai iskhurê. || kai hê asitiê (11) diaknaïei; || kai hê koiliê hê katô tarassetai, || tarassetai de hupo tou phlegmatos; || to de phlegma ek tês kephalês katabainei. || houtos, << hotan es touto aphiketai >>, apollutai; || apollutai de, || kathaper en toisi prosthen eirêtai, || diapuou tou pleumonos genomenou ê tês gastros rhûeisês katô (12).

Internal suppuration (1) also occurs || if phlegm streams down from the head into his lung. || And at first the flux (2) is not detected in the majority of cases, || and gives rise to a slight cough (3), sputum that is slightly more bitter than normal, and otherwise a mild fever (4); || but as time goes on, || the lung is roughened || and becomes ulcerated from the inside from the amount of phlegm || that stands and putrefies inside it, || and this gives rise to heaviness in the chest (5) and sharp pain anteriorly and posteriorly (6), || and higher fevers (7) descend on the body. || And the lung, on account of the heating (8), draws phlegm to itself from all of the body, especially from the head– || the head being heated from the body; || and this putrefies, || and the patient spits this out in a somewhat hardened state. || As time goes on, || the patient coughs up proper pus, || and the fevers (9) become more severe, || and the coughing (10) frequent and forceful. || And anorexia (11) wears him down; || and the lower cavity is set in motion, || and this is done by the phlegm– || the phlegm that goes from the head downwards. || The patient, <<when he has come to this point,>> dies, || and he dies || when the lung becomes purulent or from the downward flux (12) in the stomach, || as has been described before. ||

Nominalisations (3)-(6) and (9)-(10) are involved in some kind of relational process. The verb *parekhei* 'give rise to' is a specialised meaning of this verb in medical discourse; in other text types it usually has the sense of 'provide'. Here it is considered a kind of relational process as its function in this text is to link two

participants, a pathophysiological phenomenon and an observable symptom or sign, each of which are realised in the lexis as nominalisations. This linkage is of the type 'x is a sign of y' or 'y is signified by x'. Thus, clause by clause there is an explicit construction of signs through nominalisations linked to each other by relational processes. In this regard, this is very similar to the function of relational processes in English scientific discourse.

One of the frequent uses of nominalisation and relational processes, such as in the text above, is for conscious semiosis by relating to each other two different orders of phenomena as construed by the text. In the above text, we have two orders of phenomena– that of observable signs and symptoms, and that of disordered bodily physiology. Another example follows.

Hippocratic Corpus *Diseases* 1.23

puretos d' apo tōnde ginetai; ||| hotan kholê he phlegma thermanthêi, || thermainetai pan to allo sōma apo toutôn, || kalētai puretos touto; ||| thermainetai de hê te kholê kai to phlegma esōthen men apo sitiôn kai potôn, || aph' hōnper kai trephetai || kai auxetai, || exōthen [^auxetai ] d' apo ponôn kai trōmatôn, || kai [^auxetai ] hupo te [[tou thermou huperthermainontos]] kai [[tou psukhrou huperpsukhontos]]; ||| thermainetai de kai apo opsios kai akoês, elakhista d' apo toutôn. |||

Fever occurs (existential) from the following; ||| when bile or phlegm is heated up (material), || it heats up (material) all of the rest of the body from this, || and this is called (relational) fever; ||| both bile and phlegm are heated up (material) from the inside by food and drink, || by which they are nourished (material) || and are grown (material), || and from the outside by exertions and injuries, || and by heat that heats up (material) too much, and cold that cools (material) them too much; ||| they are heated up (material) by both seeing and hearing, but by these least of all. |||

There are seven nominalisations in this passage, but only two of them are involved in relational or existential processes. These two processes again serve to link pathophysiological phenomena to observable ones. The other nominalisations are within the same order of phenomena, and are involved in material processes. Thus nominalisations in the medical texts are involved in relational processes when those nominalisations are construed to belong to different orders. This is, as the analysis and the discussion in the rest of the thesis will show, a prominent feature in Thucydides' account of the plague.

On occasion, texts do engage in very explicit 'sign-making', where a previously unexplained nominalisation is 'defined' through the use of an identifying relational process.

Hippocratic Corpus *Epidemics* 4.41

hai en têisi nousoisin apostasïes ||[ei krinousi]|| sêmeïon || ei <<purôdëa ëonta>> mê puretainousi, || kai dusphora ëonta euphorôs pherousin |||

Apostases in diseases are a sign ||[whether they will come to a crisis]||– || if they do not develop a fever <<despite fever-producing conditions>>, || and tolerate difficult conditions comfortably |||

In this example, the nominalisation (*hai apostasïes* 'apostases') is involved in a relational identifying process with another noun *sêmeion* 'sign' which is then modified by an embedded clause (which has the function of Qualifier).

<u>hai</u> [en têisi nousoisin] <u>apostasïes</u>	[^EISI]	[ei krinousi]   sêmeïon
Token	Process: relational: identifying	Value

Such explicit sign-making is the 'extreme' example of relating two different orders of experience.

#### 6.2.7.1.1. Nominalisation as a participant

The majority of the nominalisation in Thucydides' account of the plague is involved in non-relational processes. However, these nominalisations stand in particular functional roles in relation to other roles in the clause. In such cases, they still have the effect of combining different orders of experience, as do those nominalisations directly involved in relational processes. However, instead of this combination of different orders of entities being made explicit through the process, the combination is implicit in the functional relations between nominal groups in the clause.

Nominalisations in Thucydides' account of the plague often occur in the role of Circumstance in the clause. These are most commonly the Circumstance subtypes of cause, contingency or accompaniment, as in the following examples.

Thucydides 2.49

kai en ou pollôi khronôi katebainen es ta stêthê ho ponos meta bêkhos iskhurou;

and soon after the illness went down to the chest with violent coughing;

en ou pollôi khronôi	katebainen	es ta stêthê	ho ponos	meta <u>bêkhos</u> iskhurou;
Circumstance: location: time	Process: material: dispositive	Circumstance: location: place	Actor / Agent	Circumstance: accompaniment

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In this example, the nominalisation is one of symptomatology which contrasts with the main clause process which describes the pathogenesis of the disease.

kai to sôma... anteikhe para doxan [têi talaipôriai],

And the body... held out, contrary to expectation [for their wretchedness],

to sôma...	anteikhe	para <u>doxan</u> [têi <u>talaipôriai</u> ],
Actor / Medium	Process: material: dispositive	Circumstance: manner: comparison

The main process of the clause– of physical change in the body– contrasts with that embodied in the nominalisations– firstly, in the mental cognitive domain, and then in the domain of behaviour during illness.

Thucydides 2.51

kai oikîai pollai ekenôthêsan aporîai |[tou therapeusontos;]|

and many households were emptied because of a lack |[of anyone to nurse them]|

oikîai pollai	ekenôthêsan	<u>aporîai</u>  [tou therapeusontos;]
Goal	Process: material: dispositive	Circumstance: cause

Again, the material main process of the clause is contrasted with the nominalisation that specifies quantity.

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Thucydides 2.51

[[hoi diapedheugotes]] [[ton te thnêiskonta]] kai [[ton ponoumenon]] ôiktisdonto [[dia to proeidenai]]

[[those who had escaped the disease]] pitied [[those who were dying]] and [[those with the disease]],  
because of [[their foreknowledge]]

[[hoi diapedheugotes]]	[[ton te thnêiskonta]] kai [[ton ponoumenon]]	ôiktisdonto	[[dia to <u>proeidenai</u> ]]
Senser	Phenomenon	Process: mental: affective	Circumstance: cause

The 'domain difference' between main process and nominalisation is less marked than in the other examples– a difference between the affective and cognitive subtypes of mental processes. However, the affective process of the ranking clause is of a non-projecting type and refers simply to the 'internal' emotional state of a person, whereas the nominalisation is that of 'propositional knowledge'– the specific projection of which is implied to be the subsequent description of acquired immunity.

In all of the above examples, the nominalisation-containing nominal groups that realise the role of Circumstance have the effect of combining different orders of experience. They do so by virtue of the relationship the Circumstance has to the other functional elements of the clause. This is relatively unsurprising, given the possible origins of Circumstances and prepositions. Circumstances may act as a kind of 'minor process' in the clause, and the preposition as a minor verb which can bring an 'indirect participant' into the process of a ranking clause, and which functions as a very



generalised kind of process<sup>230</sup>. Therefore it is quite possible for Circumstances to bring nominalisations into a minor relational process with other elements of the clause. If this is a recurrent feature of the text of the plague– and it appears that this is so– then this may very well qualify as an aspect of the lexicogrammatical metaphor of this text, where the relationship between different orders of phenomena at the level of semantics is realised in lexicogrammar as either a full relational process between two direct participants or the relationship between a direct and indirect participant.

It is important to consider in more detail why nominalisation is used to combine different orders of phenomena. There are two broad reasons for this. Firstly, despite the fact that different kinds of processes involve different kinds of lexicogrammatical selections, and can have different kinds of relationships to other processes in other clauses (such as projection for verbal and mental processes, whereas material processes typically do not project), they share one thing in common– and that is that they can be nominalised. The structural resources of lexicogrammar involved in nominalisation are common to all kinds of processes, and so, in the process of nominalisation, a wide variety of processes can be transformed into entities with the same features and potentials– a noun or nominal group. Therefore nominalisations, 'derived' from any process type, have common structural features and functional potentials, and are therefore 'equal in status' to each other. More specifically, they can take part in Carrier / Attribute or Token / Value pairings in relational processes. The consequence of this is that the lexicogrammar allows combination of nominalisations in a number of ways in clauses and text, both through processes in individual clauses, and through clause complexing relationships. This in turn has the consequence at the stratum of semantics that different orders of phenomena can be combined.

The second reason why nominalisation is particularly 'useful' is that the nominal status of such entities allows them to fulfil the role of indirect participants in clauses. In the lexicogrammatical systems of a language, there are constraints on the kinds of

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<sup>230</sup> For a discussion of circumstances as containing minor processes and therefore their own 'minor transitivity', see Halliday (1994) p.158-159.

participants that can be involved in certain kinds of processes. For example in English, only participants that are construed to be sentient can be Sensors in a mental process, and only participants with presumed linguistic ability can be main participants in verbal processes. Animate entities, or entities under the control of an animate being can be the main participant in material processes. However, these constraints can be circumvented to some extent by the use of Circumstances, as happens in the examples from Thucydides. Circumstances embody a wide variety of 'minor processes' that can bring a nominalised entity of potentially any kind into a relationship with the main process of a clause and its direct participants. One manifestation of this property is that the relationship of the function of Circumstance to the Process of the clause can be characterised in terms of expansion and projection– similar to the organisation of clause complexing relations<sup>231</sup>. Again, this has the consequence in semantics of combining different orders of phenomena. This is one of the ways in which nominalisation allows the creation of a new 'semiotic reality', and may underlie the notion of 'abstract concepts'; however, these issues will be discussed later.

#### *6.2.7.2. Textual: nominalisation and text development*

In scientific discourse in English, nominalisation has an acknowledged textual function in repackaging and re-presenting information in the co-text. In particular, nominalisations repackage the processes in preceding clauses and are placed in Theme position in (a) subsequent clause(s)<sup>232</sup>. Since the Theme acts as the 'starting point' of the clause from which the rest of the clause unfolds, nominalisation becomes integral to text development and therefore to the progression and pattern of reasoning within those texts.

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<sup>231</sup> See Matthiessen (1995) p.333-334.

<sup>232</sup> See Halliday (1998) p.201-206 for a discussion of the textual consequences of nominalisation in English scientific discourse.

To examine the textual contribution of nominalisation in Greek, we need to determine the resources that underlie Theme / Rheme allocation in the clause. English relies heavily on word order for this– Theme is typically considered to be everything up to and including the first experiential element of the clause. This is largely determined on what parts of the clause serve as the 'anchor points' for further text development. This should also be the criterion on which Theme should be determined in Greek. As such, systems of Theme have not been determined for Greek, and it is beyond the scope of this thesis to do so in a systematic and comprehensive way. However, we can still consider whether nominalisation does have a textual role, for repackaging information in preceding text for use in subsequent text.

In many cases, nominalisation does have this function of repackaging information. The following examples illustrate this well.

Hippocratic Corpus *Diseases* 1.13

ginetai d' empuos || kai ên apo tês kephalês phlegma hoi katarrhuêi es ton pleumona;  
||| kai to men prôton hôs ta polla lanthanei katarrheon... ||

Internal suppuration also occurs || if phlegm flows down from the head to the lung; ||| and at first, in the majority of cases, this flux escapes people's notice... ||

thermai te oxuterai empiptousin es to sôma; ||| kai ho pleumôn hupo tês thermasiês  
agei es hêôton ek pantos tou sômatos phlegma... ||

...and more severe fevers befall the body; ||| and the lung, because of the heating, draws phlegm to itself from all of the body...

These two examples display nominalisation which repackages the process in the preceding clause. This repackaged information is then involved as either a direct or indirect participant in the next clause. The overall consequence of this for text

development is that the subsequent clause is anchored in a specific way within the context of the previous one through the use of nominalisation. The phenomenon of anchoring in itself may be explained solely by 'morphological cohesion' (a cohesion that can be described purely in terms of structural similarity) between the verbal group of the previous clause and a nominal group of the succeeding clause. However, the use of nominalisation allows the integration of transitivity configurations with each other into a 'rank relationship' with each other. Thus these clauses are integrated with each other through the use of the compositional characteristics of lexicogrammar. These examples show succeeding clauses; however, the pattern of nominalisation of processes between successive clauses is not consistently employed in this text in its description of the pathophysiology of suppuration. This is despite the use of other nominalisations in this text which do not perform the role of repackaging the information of other clauses in the same text. These nominalisations are likely to be imported from other texts of the same registral type. However, even these are likely to have the same textual role. Instead of repackaging information from the same text, they are likely to ultimately be repackagings of information from other text instantiations.

### **6.3 Between semantics and lexicogrammar– nominalisation and lexicogrammatical metaphor**

We have already talked about the connection between nominalisation and lexicogrammatical metaphor in certain respects. We have said that nominalisation is likely to be a part of a syndrome of lexicogrammatical features of a text that go to make up the overall phenomenon of LGM, and that there is an interdependence among the various members of this syndrome. Hence metaphor, in this sense, refers to the co-occurrence of lexicogrammatical features (or, in systemic terms, the probabilities of selections within systems of lexicogrammar) that occur in a text or text type.

### **6.3.1. Semantic junction and system probability**

However, there is another aspect to LGM which has also been alluded to in previous studies of metaphor not strictly within the SFL framework. This is, in loose terms, the ability of metaphor to mean more than one thing at the same time. This, in more technical, precise terms, is also referred to as 'semantic junction'<sup>233</sup> or a 'doubling of semiosis'<sup>234</sup>. The way in which this doubling occurs (though, in principle, there is nothing to limit the process of metaphor to just doubling) is ultimately linked to the probabilities of selection within lexicogrammatical systems, and probability differences in these systems between text types and language systems as a whole, and the realisational relationships between semantics and lexicogrammar.

Nominalisation in Greek is a prime example of this doubling of semiosis. Nominalisations are entities that appear to be neither 'definite noun' or 'definite verb', and therefore defy any system of grammatical categorisation based on notions of 'necessary and sufficient criteria'. This 'fuzziness' appears to be present on any stratum or level at which one wants to consider a nominalisation. At the level of the structural constituency of lexicogrammar, there is the presence of elements that are typically associated with both nominal and verbal groups. When we consider lexicogrammar in terms of its functions, we find nominalisations that refer endophorically or exophorically to the processes of whole clauses or sets of clauses (and therefore in a sense 'identified' with those processes), and yet these nominalisations function as participants within other processes, as other nominal groups do. Similar indeterminacy is found within the realisation relationship between semantics and lexicogrammar.

Specifically, we are considering the relationship between 'low-level' semantics and lexicogrammar. By 'low-level' a particular spatial metaphor is invoked and indicates those semantic phenomena which 'lie closest' to the grammatical categories, and are

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<sup>233</sup> See Halliday (1998) p.197-201, 218-221.

<sup>234</sup> See Taverniers in Simon-Vandenberghe, Taverniers et al. (2003) (not cited).

easily categorised in a theoretical model by metafunction. Such 'low-level' semantics is well embodied and demonstrated by Halliday and Matthiessen's modelling of the semantic stratum<sup>235</sup>. Their 'ideation' base is explicitly labelled by metafunction, and the semantic categories proposed are closely related to those of the ideational component of the lexicogrammar, a consequence of the 'natural relationship' hypothesis derived from Halliday's ontogenetic studies of language<sup>236</sup>. Relevant to this discussion, such an approach to modelling is in part motivated by the need to explain lexicogrammatical metaphor. Thus this model is a good exponent of semantics being characterised 'from below' from a particular metafunctional viewpoint, and is therefore a good candidate for the characterisation of 'low-level semantics'.

The model of LGM that follows from this use of 'low-level semantics' is that functional grammatical categories realise semantic categories in a system that makes agnate distinctions to those in the lexicogrammar. Decoupling, recombination and recoupling of these realisational relationships, as outlined in a previous chapter, underlie metaphor. However, it is not the case that a particular lexicogrammatical realisation, in this process, stops meaning one thing and starts meaning another. By the time (logogenetic, ontogenetic, phylogenetic) that the process of metaphorisation takes place, the preceding realisational relationships have a history of probability– a particular, relatively enduring semantic entity or set of entities, may be very likely to be realised in a particular kind or kinds of lexicogrammatical expression before metaphorisation. The making of new realisational relationships involves the shifting of probabilities from one kind of realisation to other kinds– and this means that the probabilities associated with the previously configured relationships does not fall to zero. Thus the relatively new, metaphorical expression in the lexicogrammar is related by more than one realisational relationship to more than one semantic entity, each with its own probabilities. When we come to relatively 'coarse' lexicogrammatical and semantic distinctions– such as that between processes and

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<sup>235</sup> Halliday and Matthiessen (1999).

<sup>236</sup> Halliday (1975).

participants– we would therefore expect that nominalisations participate in two kinds of semiosis. They mean both things and happenings to varying degrees, and this is a function of the probabilities of their associated realisational relationships that have developed in the systems of the language over time and within text types and within an individual text.

### **6.3.2. Semantic junction and metonymy**

The above explanation is a characterisation of the indeterminacy in the categorial status of the nominalisation. This is in turn manifested in certain kinds of diachronic change in the semantics of a language, and in particular certain kinds of lexical metonymy. Certain kinds of nominalisation display an ambiguity of meaning, where it is unclear whether what is being construed in nominal form is 'the process of x' or 'the consequence of process x'. This appears to be particularly noticeable in some medical terms.

Thucydides 2.49

kai diarrhoïas hama akratou epipiptousês

with unmixed diarrhoea befalling them at the same time

This nominalisation (literally, 'flowing through') appears to fall into the category of 'consequence of process x'; the use of a modifying Epithet helps to push it into that sense to a large degree. However, in this pathophysiological description, there is a certain sense of 'the process x' itself'.

Thucydides 2.49

kai helkôsêôs te autêi iskhuras engignomenês

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ancient Greek*

and severe ulceration occurred in it

This is the preceding clause to the example above. Again, the nominalisation (literally 'wounding') seems to construe 'the consequence of an ulcerating process'; however, there is a stronger sense– particularly with the Epithet that seems to simply construe degree– of 'the process of ulceration'.

Hippocratic Corpus *Physician 4*

phortikon gar to toïouton kai pantelôs alasonikon, || pollakis te blabên oison tõi  
therapeüomenôi

...for such a thing (showy bandages) is vulgar, and entirely for showing off, || and they often bring  
harm to the person being treated

Here there is substantial ambiguity between the metonymically related senses of 'the process of harming / injuring' and 'the consequence of a harming or injuring process'; this carries over into the English translation.

The ambiguity is at least in part the result of the indeterminate status of many nominalisations– 'not definitely noun or definitely verb'. In such a situation, the referent is not clearly a process or a perceptually stable phenomenon that can be linked to such a process through causation or by other means, and thus the nominalisation opens up the possibility for metonymic shift.

Another important feature that this metonymic shift displays is that it is a 'microcosm' at the stratum of the lexicogrammar of many of these texts to construe the experienced world in terms of the semiotic practices in text. This is the major theme of this thesis, where linguistic semiosis becomes the 'sixth sense', and will be explored further in the second part of this thesis. The metonymic shift shown in the above examples is an example of an entity (nominalisation) constructed through linguistic resources, which is then used (or at least has the potential to be used) to construe



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some aspect of the experienced world. It is an example of how in these texts experience comes to be theorised, or 'seen through semiosis'.

The important thing to note is that we can develop a theoretical explanation for some seemingly indeterminate grammatical phenomena such as nominalisation, simply by examining what kinds of realisational relationships these phenomena have with the semantic system. In the case of nominalisation, the indeterminacy is due to the nature of the process of metaphorisation.

## **PART 2**

### **CHAPTER 7**

#### **A progression to conscious theorisation of experience through the simile and the *paradeigma* in Homer's *Iliad***

If one wants to find the earliest evidence of conscious reflection on experience, the Homeric epics provide a potential starting point. These texts, the *Iliad* and the *Odyssey*, the earliest extant literary Greek texts, cannot be thought of as being a naïve attempt at literature, or a rudimentary, imperfect precursor to the 'true literature' of later periods, just because they happen to be the earliest literary written texts that we know of. What we have instead are texts of considerable scope and sophistication, in terms of organisation, the depth of characterisation, narrative structure, and what appears to be a complicated, intricate picture of humans' place in the world, all of which is implicit in the telling of the stories that are found in each of the epics.

Starting with the work of Milman Parry, we now know that these texts were the compilation of orally composed and performed hexameter verse, where there is potential for each hexameter line to be composed out of metrically configured 'formulas'<sup>237</sup>. Through this oral tradition, and most probably subsequent modification and compilation with the aid of the written channel, we have large-scale epic texts that engage in a variety of literary linguistic activities. Of these activities, the Field

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<sup>237</sup> For a discussion of the oral nature of Homer, see Parry and Parry (1971).

associated with various parts of the text, when considered 'externally'<sup>238</sup>, varies widely. Among these kinds of Field is that of reflection on a particular state of affairs. The Homeric simile and the *paradeigma* in the *Iliad* are taken as examples of text sections that are associated with this kind of Field, each of which has a distinct generic and rhetorical structure that realises this Field in different ways, but oriented in different ways to the audience of the text. However, there is also evidence that the rhetorical strategies of these two text types are beginning to be combined and deployed simultaneously. However, the Field is not left unaffected by this combination; instead, we have a new type of Field which may be called 'conscious reflection' or 'theorisation'. It is a good example of how changes of choice in linguistic systems lead to the potential for the emergence of new kinds of context of situation, and thus new kinds of texts. In many ways, these particular features of Homeric epic can be seen as a precursor to texts, such as that of Herodotus and Thucydides, whose primary focus is that of 'theorisation'.

## 7.1 The linguistic tools used for the analysis of epic

To proceed with the analysis and discussion of these selected aspects, we require a multi-levelled linguistic analysis at both the lexicogrammatical and semantic strata. However, the focus of the analysis will be semantic, and in particular the relatively contextually-oriented aspects of the semantics of the text sections. The analysis of the lexicogrammar is useful insofar as it shows in what lexicogrammatical form the various semantic features are realised. Similarly, any GM (which involves the

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<sup>238</sup> Considering a text 'externally' is to regard the text essentially as text that describes a certain 'reality', with participants that interact linguistically with one another. Contrast this with the 'internal' perspective, which foregrounds the linguistic activity between the producer and audience of the text— for example, between writer and reader. This is essentially analogous to the metafunctional distinction between the ideational and interpersonal, as Matthiessen's discussion of rhetorical relations in Butt and Matthiessen (draft, 2000) p.256-264 shows.

interaction of the lexicogrammar and 'low-level' semantics) that is found appears to operate within the environment of, and be motivated by, these 'high-level' semantic configurations of the text.

The tools used for semantic analysis are those of the GSP and RST. The use of the GSP is to provide a statement about the staged elements of the text portions under discussion, and is thought to most directly reflect the context of culture associated with that text, insofar as those aspects of the context are recoverable from the text. As explained earlier in Chapter 4, the context of situation is taken as an instantiation of the context of culture; thus Field, Tenor and Mode (but concentrating on Field) are inferred from the GSP statement, and from the lexicogrammar. The GSP provides evidence for the kind of linguistic activity going on between author and audience, whereas the lexicogrammar is taken as the construal of the various processes and participants of the text. The relational structure of the text, investigated through the tools of RST, operates within this generic environment, and in a major sense brings about the fulfilment of each generic stage.

The relational structure is taken as obtaining between sequences, realised in the lexicogrammar by clause complexes. It is acknowledged that this may not take into account the possibility of incongruent realisational patterns, such as sequences in the semantics being realised through single clauses in the lexicogrammar. However, we are dealing with a text that does not have argumentation or the creation of knowledge as a prominent feature of the Field. Instead, narration and the 'entertainment' of a listening audience take precedence, foregrounding oral storytelling as a result. This would de-emphasise the need for abstraction and information development for the creation of knowledge. Judging from what has been found in the case of English texts, this would make it less likely that incongruent patterns would be deployed. Thus, the clause complexes are regarded as a major guide to identifying the sequences that can be brought into relation with each other.

As discussed earlier in this thesis, any GM in the texts is most readily found logogenetically. Therefore in a given text, GM is only stated to be present when what is semantically agnate is found to have been construed differently in a earlier part of the text section, such as within a simile or *paradeigma*. The later reconstrual in a subsequent part of the text may be seen as an instance of LGM. Again, the GM is thought to be part of the overall 'larger' semantic strategy within the text.

## 7.2 The simile: experiential comparison

### 7.2.1 Contextual description: Field / Tenor / Mode

It has long been recognised that the Homeric simile is a distinctive feature of the Homeric epic as a whole. A significant part of textual commentaries discuss the similes in themselves; this implies that a given simile is often seen as a unit of text distinct from the surrounding narrative text, with its own features that can be described relatively independently. It is often characterised as a 'breakout' from extended narrative; it is often thought to have the function of providing variety and literary embellishment to accompany narration.

Many of these similes are quite elaborate. Much modern literary comment centres on the degree of 'appropriateness' to the narrative, the 'insightfulness' of some of the comparison, and how the simile contributes to or supports the narrative events, with an appraisal of the 'aesthetic' qualities that the simile brings to the epic. This view is often borne out in the introduction and explanation of the function of the simile in any textual commentary of Homer<sup>239</sup>:

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<sup>239</sup> See Homer and Stanford (1965), p.xx.

He uses simile partly to explain and emphasize, but partly also to enrich and expand. So his similes are often extended far beyond the point of comparison, and may contain charming vignettes of the background of the heroic age and even of Homer's own time. He uses metaphor to stimulate the imagination and diversify his diction. But he uses it less strikingly than the simile, which is better suited to an unhurried narrative style. Similes are much fewer in the *Odyssey* than the *Iliad*, because the *Odyssey* has constant variety of scene in its main narrative, while the battle-scenes of the *Iliad* tend to monotony.

With this in mind, we can attempt a short description of the Field, Tenor and Mode for the Homeric simile.

Field: comparison of state of affairs of narrative event to generic state of affairs which is temporally and spatially non-coextensive, and which is construed to be previously conceptually unrelated to narrative event

Tenor: author to public audience; text production and reception do not necessarily occur simultaneously (because Homer was put down in written form, and in the oral tradition many sections of the epic may have been previously composed by others)

Mode: written channel; spoken medium (of oral poetic tradition); movement from narrative event to simile event then back to narrative event

### 7.2.2 Semantic description: generic structure

We can also attempt a statement of the generic structure as follows:

Narrative Event Focus ^ Generalised Paralleling ^ Rearticulation

This generic structure is intended to reflect three distinct stages of the Homeric simile. The first stage, Narrative Event Focus, introduces the event to be elaborated upon by the simile. It has a dual role, each corresponding to a particular stage in two different kinds of generic structure, one nested inside the other. The first is as a discrete event

in the main narrative, analogous to that of the Sequent Event in Hasan's model of the generic structure of the nursery tale. The second role is as the focus of comparison in the simile nested within the narrative. The second generic stage of the simile, Generalised Paralleling, is the state of affairs to which the events of the narrative are compared. The state of affairs is usually not specific to time or place. Typically the state of affairs is a generalised or idealised description of a rural or rustic series of events, involving 'typical scenes' of country life; it does not involve specific places or specific actors in a scene located at a particular point in time. Rather, they are descriptions of 'situation types' of what are construed as typical rustic events; hence the use of the term 'Generalised'. The comparison between it and the events of the Narrative Event Focus is usually facilitated by the use of a conjunction such as *hōs* 'just like' or 'just as (when)'. This appears to be often the only element realised in the lexicogrammar that brings the two states of affairs into alignment. In many cases there appears to be no particular requirement that the same kinds of processes occur in the body of the simile as occur in the narrative. As has been noted before, the Generalised Paralleling is elaborated for its own sake without reference to the events of the Narrative Event Focus. This has quite important consequences for the Rearticulation stage of the simile.

The Rearticulation stage of the simile re-introduces the main narrative event which was the focus of comparison in the simile. Like the Narrative Event Focus, it has a dual role. The first is to bring the simile to a close and re-enter the narrative thread; it is also related to the simile with the conjunction *hōs* 'just like' or 'just as (when)'. The second role is as an event in the larger narrative sequence which is the environment for the simile. However, the event described in the Rearticulation is not construed in the same terms as the Narrative Event Focus; instead, we find that the Rearticulation tends to be a restating and clarifying type of elaboration<sup>240</sup> of the Narrative Event

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<sup>240</sup> The term 'restating elaboration' is derived from the terms used to describe clause complexing relations and rhetorical relations; see Halliday (1994) p.226 (called expository elaboration), Mann, Matthiessen et al. (1992) p., and Stuart-Smith (2001) Appendix 2 p.3. This framework has also been applied to the kinds of Circumstance found in the lexicogrammar of the individual clause, as characterised in terms of the

Focus. Consider the following simile from the *Iliad* which compares the Trojan assault to the sea coming over the sides of a ship:

Homer *Iliad* 15.379-389

*Narrative Event Focus*

Trôes de hôs eputhonto Dios ktupon aigïokhoïo, ||  
mallon ep' Argeïoisi thoron, || mnêsanto de kharmês. |||

^ *Generalised Paralleling*

hoi d' hôs te mega kuma thalassês euruporoïo  
nêos huper toikhôn katabêsetai, || hopot' epeigêi  
is anemou; ||| hê gar te malista ge kumat' ophellei; |||

^ *Rearticulation*

hôs Trôês megalêi ïakhêi kata teikhos ebainon, ||  
hippous d' eiselasantes epi prumnêisi || makhonto  
engkhesin amphigüois autoskhedon, || hoi men aph' hippôn, ||  
hoi d' apo nêôn huphi melainâôn epibantes  
makroisi xustoisi, || ta ra sph' epi nêusin ekeito ||  
naumakha kollêenta, || kata stoma heimena khalkôi. |||

*Narrative Event Focus*

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relationship between Circumstance and Process– see Matthiessen (1995) p.333. It has also been applied to the functional relationship between Process and Range– see Martin (1992) p.310-314.



When the Trojans noticed the thunderclap from aegis-bearing Zeus, || they rushed upon the Argives more forcefully, || and recalled their courage. |||

^ *Generalised Paralleling*

They did so, just as a great wave of the wide sea goes right over the sides of a ship, || when the force of the wind pushes it on— ||| for this assists the wave most greatly. |||

^ *Rearticulation*

Just so, the Trojans came across the wall with a great clamour. || They rode their horses in || and fought amongst the prows at close quarters with double-edged spears— || the Trojans fought from their horses, || while the Argives climbed high up onto the black ships with long pikes, || which lay at their disposal among the ships, || fastened together for sea fighting, || bronze fastened to their tips. |||

The Rearticulation is essentially a restating elaboration of the Main Narrative Focus. It describes the assault in more detail, because it construes the soldiers as moving over a wall and in amongst the Greek ships. This detail is then built upon by construing the movement and fighting of the soldiers— how they come to take up their positions, what positions they take up, what weapons they employ. This level of detail is enabled by the Generalised Paralleling of a sea wave coming over the side of a ship, and inside. Thus, in the Homeric simile, we do not simply 'go back to where we started' in the narrative thread after completing the comparison. Instead, the Rearticulation reconstrues the narrative event in question to provide the basis for progression of the narrative in a certain way.

The generic structure of the simile provides the configuration of the environment that the simile creates. However, this can only be enabled by the lower-level semantic processes that occur within each generic stage— the rhetorical structure and lower-level semantic processes directly realised in the lexicogrammar.

### 7.2.3 Semantic description: rhetorical structure

The rhetorical structure of the simile operates within each generic stage. The main point of interest here is what kinds of rhetorical relations exist within each stage of the simile. Rhetorical relations are taken to hold between sequences, or what is realised by the clause complex. The following Homeric simile compares the Greek campfires to stars in the night sky.

Homer *Iliad* 8.553-565

*Narrative Event Focus*

hoi de mega phronēontes || epī ptolemoīo gephuras  
hēato pannukhōi, || para de sphisi kaīeto polla. |||

^ *Generalised Paralleling*

hōs de hote en ouranōi astra phäeinēn amphi selēnēn  
phainet' ariprepēa, || hote t' epleto nēnemos aithēr; |||  
ek t' ephanen pasai skopīai kai prōones akroi  
kai napai; ||| ouranothen d' ar huperragē aspetos aithēr, ||  
panta de eidetai astra, || gegēthe de te phrena poimēn; |||

^ *Rearticulation*

tossa mēsegu neōn ēde Xanthoio rhōāōn  
<<Trōōn kaīontōn>> pura phaineto Ilīothi pro. |||  
khilī' ar' eu pediōi pura kaīeto, || par de hekastōi  
hēato pentēkonta selāi ||[puros aithomenoio]. |||  
hippoi de kri leukon ereptomenoi kai oluras ||  
hestāotes par' okhesphin || ēuthronon Ēō mimnon. |||

Narrative Event Focus

...and so their spirits became high || and they stationed themselves along the passageways of the battlefield all night long, || and many watchfires blazed among them. |||

^ Generalised Paralleling

Just as when in the night sky the stars appear most glittering around the shining moon || when the air becomes completely windless; ||| all the lookouts and jutting peaks stand out, and the steep ravines; ||| and down from the high heavens bursts the limitless bright air || and all the stars appear, || and the shepherd is glad in his heart; |||

^ Rearticulation

this number of fires appeared before Troy, between the ships and the Xanthus' streams, || Troy lighted up by them. ||| A thousand fires were burning there on the plain || and beside each fire sat fifty men in the light of the ||[leaping blaze]], || and munching oats and white barley, || stationed by their chariots, || their horses waited by their shields for well-throned Dawn. |||

The Narrative Event Focus contains one rhetorical unit whose main relation is to the rest of the surrounding narrative; however, this stage does not contain any internal rhetorical structure. However, the Generalised Paralleling does contain extending and enhancing rhetorical relations, which allow it to be articulated in three parts, one of which stands in a circumstantial satellite relation to the more nuclear two parts which are related to each other by an extending additive relationship. This has important consequences for the rhetorical structure of the Rearticulation, which shares great similarities in terms of its nucleus-satellite configuration. The circumstantial semantic relation found in the Generalised Paralleling is also found in the Rearticulation; this is important evidence that the narrative event is being articulated in the same terms as the main body of the simile, and thus part of the function of the Homeric simile is to influence the way in which certain narrative events are developed. Thus the function

of the Rearticulation is enabled in the case of this simile (and possibly others) through the similarity of its rhetorical development to that of the Generalised Paralleling.

This also explains the function of the Rearticulation in the simile cited above from book 15 of the *Iliad*. In the Generalised Paralleling, there is a causative rhetorical relation to explain how the wind on the sea raises the waves that crashes over the side of the ship. What we find in the Rearticulation is that the assault of the Trojans takes place *megalêi iakhêi* 'with a great clamour'. This Circumstance might simply be one of accompaniment, but the Rearticulation, in the light of the preceding Generalised Paralleling with its causative rhetorical relation, guides the interpretation towards a causative Circumstance or Circumstance of means, where the war cry provides the impetus for the Trojan onslaught. It may also be the case that this also opens up the potential to describe the manner in which the fighting takes place, where there are Circumstances of means (*engkhesin amphigüois* 'with double-edged spears', *makroisi xustoisi* 'with long pikes') to describe the weaponry used in the battle. In effect, the causative rhetorical relation is metaphorised into Circumstances of means, and thus the Rearticulation fulfils its function by using the rhetorical structure of the Generalised Paralleling as the basis for reconstruing the narrative event. Another way to consider this is that the rhetorical relations in the Generalised Paralleling are metaphorically reconstrued through those resources of lexicogrammar whose meaning relations to the Processs can also be characterised in terms of logico-semantic relations.

#### **7.2.4 Sequence / figure / element and lexicogrammatical realisation**

In both similes cited so far, the same kinds of sequences occur in both the Generalised Paralleling and the Rearticulation, though in different ways. In the simile from book 15, we have an enhancing temporal sequence within the nucleus of the Generalised Paralleling, realised in the lexicogrammar as an enhancing temporal clause complex

where the two clauses are linked through the temporal conjunction *hopot(e)* 'when'. This is reflected in the temporal sequences in the Rearticulation, realised as hypotactically dependent participial clauses construing the 'temporal clause' with main clauses.

The simile in book 8 shows similar patterns, though the difference here is that the sequences may possibly be realised metaphorically. In the Generalised Paralleling, we have temporal and causative sequences, where the stars appear bright when the air is clear, and the shepherd is mentally uplifted as a result. However, the lexicogrammatical resources used to realise this are the same as those used in paratactic additive extension, with use of the particle *de* in each of the member clauses. In the Rearticulation, in parallel to this, we have a rhetorical relation of temporal Circumstance, but this is also realised metaphorically. There is no Circumstance in the lexicogrammar to indicate that the horses are feeding at the same time as the men are sitting around their campfires; again, the juncture between the two elements of the rhetorical relation is only realised through the particle *de*, the same as is used in the realisation of paratactic additive extending or elaborating types of rhetorical relation. Thus it appears that lexicogrammatical metaphor in the Generalised Paralleling predisposes to a similar tendency to the same kind of metaphor in the Rearticulation.

If we look at the figure-by-figure construal of events in the body of the simile and the compared narrative event, we find material events predominate. Not much significance can be read into this in itself, as we might expect that any portrayed state of affairs to which comparison might be drawn, and which is thought to exist 'in the outside world' will necessarily have material events in the semantics construed congruently by the lexicogrammar. However, there appear to be some patterns in the more peripheral elements of the clauses— the participants, and particularly in the Circumstance roles. In the simile in book 15, the Narrative Event Focus depicts people making a sudden movement towards their enemy. However in the Generalised Paralleling, the movement of a wave is in relation to an inanimate object, the side of a

ship. The Rearticulation reflects this pattern of movement in relation to other objects, where the troops are construed to be moving in amongst the ships and other objects, rather than fighting against, killing or wounding other people. The effect of the simile in book 8 is that it shifts the focus of the narrative from the people around each campfire (the predominant main participant in the Narrative Event Focus) to the fires themselves. The burning of the fires are in the more peripheral rhetorical element of the Narrative Event Focus, but in the Rearticulation events involving the fire are located in the 'core' of the generic stage, and are thus now the focus of the 'resumed' narrative, and are the main event construed. The clauses of the Generalised Paralleling construe a rural scene, where the appearance of mountainous geography in one clause is brought into alignment with the reaction of a shepherd to the spectacle of the stars and the moonlight in the clear sky. This appears to prompt in the Rearticulation the construal of a closely related phenomenon, that of domesticated animals feeding on grain. If we want to explain this in systemic terms, the semantic and lexicogrammatical selections made in the Generalised Paralleling make it more likely that those parts of the semantic and lexicogrammatical networks are selected in the subsequent Rearticulation stage. This is analogous to saying that selections tend to be made within the same semantic field or domain in the Rearticulation as in the Generalised Paralleling.

### **7.2.5 Overall effect of the linguistic processes underlying the Homeric simile**

So far, we have attempted a multi-levelled semantic and lexicogrammatical characterisation of the Homeric simile. The most obvious observation to be made about such similes is that they cannot be regarded as simply being literary ornaments set within the 'main business' of the epic, that of narration. Instead, similes have an important role in guiding the narrative process in certain directions, with the result that the narrative event that is brought into comparison is construed in a significantly

different way once the epic 'reverts' from the simile to the narrative, and opens up different ways of developing the narrative from that point. Rhetorical relations in the Generalised Paralleling are 'grammaticalised' through those resources of lexicogrammar that are organised in a similar fashion to rhetorical relations. This is the linguistic means by which the function of the Homeric simile recasts and reconstrues the narrative, thus offering the potential for the epic narrative to take a different direction.

The evidence for this is found in how the Generalised Paralleling of the simile picks up on a point of similarity construed by the Narrative Event Focus. This point of similarity is often made by sharing the grammatical configuration of one clause between these two stages. The subsequent semantic and lexicogrammatical features developed in the Generalised Paralleling are then brought over into the Rearticulation, whose function is then to cast the narrative in the same terms and develop subsequent narrative from that point. The other semantic processes that underlie the function of these stages operate at the level of rhetorical structure and in the clausally-oriented semantic phenomena and how they are realised in the lexicogrammar. As a result, the narrative event is elaborated in terms of its rhetorical structure, which enables the narrative to be developed along the same lines as the scene in the Generalised Paralleling. This is not to say that this development would not, hypothetically speaking, have not happened in the narrative in the absence of a simile; rather, this particular trajectory is made more likely by the simile. The figures and sequences found in the simile also make it more likely that ones of similar configuration are found in the re-articulated narrative event, in particular the more peripheral elements of these. There is also evidence that if GM is employed in the main body of the simile, then there is a similar tendency in the re-articulated narrative.

Overall, in the progression from Narrative Event Focus to Generalised Paralleling to Rearticulation, there is a kind of restating elaboration of the narrative, but with potential for further extension and enhancement. However, this potential is only drawn upon to the extent that the narrative thread allows; the requirement of the epic

narrative is that it cannot 'dwell' too much on any 'sequent event' in the narrative. However, the Homeric simile does allow for a certain set of events 'to be seen as something else' and talked about in this 'new light'; thus this is a form of conscious reflection on the experienced world.

Another significant point concerning the Homeric simile is that it has the function of construing a particularised narrative event in terms of a generalised scene. In other words, a relatively 'fleeting' particular event is modelled on a relatively idealised, abstracted one. So the effect of the simile is to reconstrue a particular event in terms of a more general class of events. This more general class of events, construed in the Generalised Paralleling, is relatively abstracted away from experience. This is achieved through certain linguistic features, such as the employment of imperfective aspect<sup>241</sup> realised as the present, imperfect and perfect indicative forms of verbs, and the lack of close semantic relations between lexical items between the participants portrayed in the Generalised Paralleling and the surrounding epic narrative. The lack of deixis within the nominal groups— revealed by the lack of the definite article— may also contribute, but this is not specific to the Generalised Paralleling. However, the overall effect of this is abstraction, with the result that the events of the Rearticulation are informed by an abstracted model of experience.

This is a potentially significant effect of the simile, and may be the precursor of more developed forms of the abstracted model of experience such as are found in the later medical and scientific texts. However, this potential for abstract modelling is not developed in Homer, and this is because it is not part of the primary purpose of the Homeric epic. The epic's primary purpose is to tell a story to a public audience; conscious reflection is relatively backgrounded and treated as a diversion or sideline to these primary purposes. Hence this potential for conscious reflection remains relatively underdeveloped at this stage.

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<sup>241</sup> This classification of aspect derives from Comrie (1981) p.16-40.



### 7.2.6 Simile 'grammaticalised'

Before leaving the discussion of the Homeric simile, we must also address a concurrent tendency in the epic to construe clause-level comparisons analogous to those done by the simile. The comparison is effected by relating the Process of a clause to a Circumstance of comparison that is mapped onto a comparative conjunction (*hôs* 'like') and nominal form. One example from book 5 of the *Iliad* illustrates this.

Homer *Iliad* 5.299

Amphi d' ar' autôi	baine	<i>leôn hôs</i>	alki	pepoithôs
Circumstance: location: spatial	Process: material: dispositive + middle	Circumstance: manner	Matter	Process: mental: affective

(Aeneas) straddled the body *like a lion*– || trusting in his strength

This clause-level comparison shares some of the features of the 'full-blown' simile. Firstly, a comparison is made between two animate agents that are construed to be separate and 'conceptually' unrelated to each. The comparison is made between a particular person and a relatively abstracted animal– the comparison is not made to any particular lion, just to the 'general model' of a lion. However, the comparison does not effect any significant reconstrual of the participant in the subsequent main narrative (Aeneas). Just as the comparison occurs within the one clause, its potential for reconstrual does not last beyond it. However, this example does show that simile-like effects can be achieved through realisation by lexicogrammatical categories in the one clause. Again, this is effected through the analogue of logico-semantic relations in the single clause– the relationship between Process and Circumstance.

This, however, is not the only way in which comparisons can be made at the level of a single clause. It can also be made by the relation between process and participant, as the following example shows.

Homer *Iliad* 5.113

haima d'	anêkontisde	dia streptoïo khitônos
Actor / Medium	Process: material: dispositive + middle	Circumstance: extent: spatial

...and blood lanced out through the flashing tunic

Examples like this are typically treated as examples of lexical metaphor. However, this is also where some of the functions of the simile are expressed through the relations between two different lexicogrammatical categories, as with the previous example. The Actor of the clause is construed with a Process type that is not usually associated with this kind of Actor, and thus the kind of event that blood is involved in is construed in terms of the kinds of activity that are normally construed with the action of a lance hurtling through the air. What is happening in this and the previous example is that there is potential in Homeric Greek for at least some of the functions of the simile to be 'grammaticalised'— that is, these functions are realised in the relationships that hold between functional lexicogrammatical categories in the clause. In this respect, the second example only differs from the first in character in that it involves the relationship between more 'nuclear' elements of the clause. But again, as with the first example, any effects of the reconstrual of the narrative event are short-lived, and only extend as far as the clause in which the comparison is made.

Two points should be made about this 'grammaticalisation' of comparison. The first is to note that this phenomenon occurs concurrently with the extended simile in the Homeric epic. The two examples above are from book 5 of the *Iliad*, considered to

contain the most ancient epic material. It may be tempting to initially think that this grammaticalisation is an example of the process of GM at work, where full-blown comparisons that stretch over several clauses are subsequently construed at a later point in time as a relationship between two functional elements in the one clause. In scientific English, this certainly appears to be the case, where elements of a full clause can be subsequently and metaphorically reconstrued as functional roles within a nominal group, as previously discussed. Following this line of reasoning, the 'grammaticalised' examples above are metaphoric reconstructions of extended similes. However, there appears to be no evidence of this, at least in its logogenetic aspect, in the Homeric epic. Instead, we have the full simile and the clause-level comparison coexisting in the epic— and therefore simultaneous potentials to reconstruct narrative events through comparison, and to perform small-scale comparison at the clause level, by realising some of the functions of the simile through the relationship between certain lexicogrammatical categories within a single clause. One does not function as the metaphorical reconstruction of the other, or at least there is no direct evidence to suggest this<sup>242</sup>.

### 7.3 The *paradeigma*: interpersonal comparison

Closely related to the Homeric simile is the *paradeigma*. Literally termed 'example', it is also a means of comparison between two states of affairs. However, the context in which it is used, and the effects it produces, are quite different. The aim of this section is to show the great similarities between the simile and the *paradeigma*, particularly as they both compare two states of affairs. However, the *paradeigma* is

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<sup>242</sup> However, it may be noted that some of the clause-level comparisons may recall some of the other extended similes in other parts of the epic— for instance, the clause-level comparison to a lion in the example in book 5 may recall the numerous extended similes where the actions of heroes are compared to the fierceness, strength and courage of the lion. However, there is still no evidence that one develops logogenetically and metaphorically from the other.

'interpersonally oriented'— that is, the act of comparison is made in order to prompt a person to a certain course of action where there are alternative courses of action available from which to choose. One of the most prominent examples of the *paradeigma* in the Homeric epic is in book 9 of the *Iliad*, where the charioteer Phoenix attempts to persuade Achilles to remain in the war at Troy by relating the story of Meleager (Homer *Iliad* 9.522-599). In terms of the epic, it follows the general model through which elderly characters dispense advice to younger ones. Essentially, he relates the story to show how the events of that episode greatly resemble the current circumstances of Achilles and the Greeks. Phoenix intends the outcome of the past episode (as he tells it) to be a model or 'example' of how the current situation should be resolved. It is comparison employed for persuasive purposes<sup>243</sup>.

### 7.3.1 Orientation of the *paradeigma* with respect to the audience; contextual description: Field, Tenor, Mode

Firstly, one must state as precisely as possible how the activity of the *paradeigma* stands in relation to the audience of the epic. We have seen that the Homeric simile is directed towards the audience, because the narrative on which the simile depends is directed to this audience. Thus the comparison drawn by the author is directed to the audience directly. However, the *paradeigma* cited in this discussion occurs within a speech by Phoenix to Achilles, and thus any comparison drawn in the *paradeigma* is in the first instance by Phoenix to Achilles; the audience of the epic is positioned as a 'spectator' of this speech, and of the activity of the *paradeigma* within it. Because of this, the interpersonal exchange between Phoenix and Achilles is 'experientialised' for the epic's audience to some extent.

However, the Homeric epics can, in portraying these kinds of exchanges, be expected to employ the same kinds of interactional patterns, and the same kinds of general

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<sup>243</sup> This is also the view proposed by Snell (1953) p.204-205.

linguistic activity as found in any kind of social activity that obtains between two or more people in real time. Thus we would expect that the form of the *paradeigma* within Phoenix's speech would be the same as if the *paradeigma* were directed by the author at the audience of the epic, or between any two people. However, it is not part of the purpose of the epic author to engage in a direct persuasive strategy with the audience, and so we do not expect a *paradeigma* to be directed at us. Nevertheless, we can treat this *paradeigma*, and the processes within it, as being typical of the same kind of activity that might occur between 'real people' in real time. Thus we are able to examine the *paradeigma* 'in Achilles' shoes', so to speak, and thus perform a linguistic characterisation of it.

We are now in a position to make statements about the Field, Tenor and Mode of the *paradeigma* as follows:

Field: author attempts to persuade addressee to a particular selection of course of action among alternatives, through comparison of the 'preferred alternative' to the outcome of a past event in which decision-making was involved. There is currently no course of action decided upon, and a decision needs to be reached in order to produce an outcome.

Tenor: author attempts to stand in the position of advising the addressee in a credible manner. Addressee is assumed to be seeking, or receptive of, advice. Text production and reception construed to occur in real time.

Mode: written channel, spoken medium (of oral epic poetry); progression from author's statement of position to narrative of past event that serves as subsequent model of advised course of action, which is essentially a restatement of the original position.

### 7.3.2 Semantic description: generic structure

As for the Homeric simile, we can also set out a preliminary statement of the generic structure as follows<sup>244</sup>.

Initial Framing ^ Similarity Recognition ^ Exemplum ^ Interpreted Outcome ^ Final Advice (^ Consequence)

Each of these will be explained in turn. In particular, the Exemplum is a relatively self-contained narrative episode covering a mythological story; therefore it is likely to have its own generic structure internal to it.

The Initial Framing stage of this *paradeigma* is essentially to outline the ethical or moral principle that is intended to guide the formulation of a desired course of action. It does not state the advised course of action in concrete terms. Instead, it is meant to indicate the desired 'mindset' that the addressee is asked to adopt, of which the suggested plan of action at the end of the *paradeigma* is supposed to be a logical extension. This particular characterisation may only apply to this particular *paradeigma*; it is quite possible that it may be 'the norm' or 'acceptable' for this stage to state concrete advice initially which is then reinforced by the rest of the *paradeigma*. However this is not the characteristic of the *paradeigma* under discussion here.

The function of the stage of Similarity Recognition is to simply convey the message that the current state of affairs bears parallels to some kind of event in the past. In this case, the parallel is drawn between Achilles and the actors in these past events, specifically Meleager. In this case of the *paradeigma*, this stage does not specify the particular past event to which the current state of affairs is to be compared. The


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<sup>244</sup> A similar approach to characterising the *paradeigma* in terms of a generic structure has been formulated by Nestle (thesis – reason – narrative – reason – thesis); this is cited and discussed in Willcock (1964) p.142.

outcome of these past events, in terms of what the principal actors did in that past episode is summarised as well; this reflects the desired outcome of the current episode that the speaker is urging.

The Exemplum narrates the actual past episode that the speaker has in mind. As such, it is relatively self-contained, and can be treated as a narrative episode with its own generic structure. This is analogous to the phenomenon of embedding of clauses as elements of a single clause found at the lexicogrammatical stratum. We expect that such narrative episodes have a similar configuration as 'free-standing' or 'ranking' narratives. It in fact has a great deal of similarity with Hasan's characterisation of the nursery tale genre, and so can be specified as follows with similar terms:

[ [Initiating Event ` Placement] ^ Background] ^ Sequent Event (^ Background) ^  
Final Event ^ Finale



This specification is intended simply to show that the Exemplum has a generic structure of its own, because its function is to comprise a series of narrative events temporally and spatially discontinuous with the current events that surround and are part of Phoenix's speech. A detailed justification of this generic structure is beyond the scope of this discussion, as the overall generic structure of the *paradeigma* is of primary concern here; however, there will be a brief explanation of selected aspects of the various elements that comprise this structure<sup>245</sup>. Initiating Event and Placement

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<sup>245</sup> The definition of the various terms for stages of the generic structure of the Exemplum follows that of Hasan (1996) p.53-55. See also Martin (1992) p.565-568 which also focuses on the genre of 'exemplum', which has some significance to the discussion here. However, as it seems to follow Guenter Plum's characterisation, a significant contrast is drawn between 'pure' narrative and the exemplum. The *paradeigma* under examination here has an internal 'exemplum' but which has a

are dispersed across each other, with the effect that the initial event of the narrative episode is 'mixed' in with the function of 'scene setting' for the story. The subsequent narrative events that comprise Sequent Events build upon this initially set scene. In the case of both the Initiating and Sequent Events, there is a Background; this has the function of explaining the event in question— for example, why particular people or gods are involved in the event— in terms of a series of events whose outcome explains that particular feature or those features that comprise the Event in question<sup>246</sup>. As in the nursery tale, the narrative episode is brought to a close with a Final Event. In Hasan's characterisation of the nursery tale, the Finale has the function of representing a steady state of affairs that is the consequence of the preceding Sequent Events. It might be possible to see such a phenomenon in the Exemplum of this *paradeigma*, where Phoenix 'summarises' the events of the recalled story<sup>247</sup>. However, this 'summary' is a selective one, and whose content is closely tied to the overall purpose in the *paradeigma* as a whole. Therefore this is treated in this analysis as a 'ranking' stage— the Interpreted Outcome— in the *paradeigma* as a whole, rather than being a sub-part of the Exemplum.

It is important to note that the Exemplum is part of the larger structure of the *paradeigma*, rather than being a separate generic entity in its own right. Important evidence for this is found in the nature of the Sequent Events of the Exemplum. It has long been noted that that this version of the mythological story is unique, and does not correspond to major elements of the story derived from other sources. Instead, it appears that major details of the story have been changed in this particular *paradeigma* to provide a clear analogy or parallel to the events of the main narrative involving Achilles, and so that the overall function of the *paradeigma* is

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resolution, and thus tends to be 'narrative-like'. The distinction is not so sharp here, and so the generic structure of the exemplum is characterised in terms of narrative.

<sup>246</sup> These are often seen as 'digressions' from the main narrative; however, they are also recognised as being part of the style of the Homeric epic, and may also reflect its origins in oral compositional and recitational practice.

<sup>247</sup> Homer *Iliad* 9.597-599.



maintained<sup>248</sup>. Therefore the nature of the Sequent Events is heavily influenced by the overall functions of the *paradeigma*, and thus the Exemplum properly subserves the functions of the *paradeigma*, rather than being a separate entity. We therefore might expect that the linguistic configuration of the Exemplum at the level of the semantics and the lexicogrammar shares significant similarity with that associated with the main narrative of the epic; however, a detailed examination of this also will be left aside in favour of concentrating on the overall configuration of the *paradeigma*.

The Interpreted Outcome has the function of selectively recapitulating the Exemplum. It does so in a way that reflects the drift of meanings in the Initial Framing, and informs the subsequent meanings conveyed in the Final Advice. In effect, it is that part of the *paradeigma* that bridges directly between Exemplum and Final Advice, and serves as the model on which the advised course of action is based. In this case of the *paradeigma*, it turns out that Interpreted Outcome is not an exact parallel of the advice offered— Meleager in the story defends his people despite not being given any reward, whereas there is opportunity for Achilles in the main narrative of the epic to receive recompense and reward for staying. But in any case the advice is given with reference to the Interpreted Outcome, and it is in this sense that this stage provides the basis for the Final Advice.

The stage of Final Advice explicitly urges the addressee to a particular course of action. This action may be material in nature, but, as in this case, one can also urge another to adopt a particular attitude, or tell him 'what to think'. The actions that are advised are taken as the concrete implementation of the guiding principles outlined in

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<sup>248</sup> The details of the story of Meleager have been changed (in comparison with the version of the story by Bacchylides, and, later in Roman literature, Ovid) to more closely parallel the situation which Achilles finds himself in; such modification of stories often occurs with the *paradeigma*. For a detailed discussion of this, see Willcock (1964). See also Homer and Griffin (1995) p.134-136 and Homer and Wilson (1996) p.28.

the Initial Framing, and are intended to parallel the action selectively interpreted in the Interpreted Outcome.

Thus we can assign the labels for the generic stages of the *paradeigma* as follows:

Homer *Iliad* 9.522-599

*Initial Framing* (522-23)

tôn mê su ge muthon elenxêis mêde podas; |||  
prin d' ou ti nemessêton || kekholôsthai. |||

^ *Similarity Recognition* (524-528)

houtô kai tôn prosthen epeuthometha klêa andrôn  
hêrôn, || hote ken tin' episdaphelos kholos hikoi; |||  
dôrêtoi te pelonto pararrhêtoi t' epëessi. |||  
memnêmai tode ergon egô palai, ou ti nêon ge, ||  
hôs ên; ||| en d' humin erêô pantessi philoisi. ||

^ *Exemplum* (529-596)

Kourêtes te makhonto kai Aitôloi menekharmai  
amphi polin Kaludôna kai allêlous enarisdon, || ...

^ *Interpreted Outcome* (597-599)

hôs ho men Aitôloisin apêmunen kakon êmar ||  
eixas hôi thumôi; ||| tôi d' ouketi dôr' etelessan  
polla te kai kharïenta, || kakon d' êmune kai autôs. |||

^ *Final Advice* (600-605)

alla su mê moi tauta nôei phresi, || mêde se daimôn  
entautha trepseïe, philos; ||| kakïon de ken eïê ||  
|[nêusin kaïomenêisin]| amunemen; ||| all' epi dôrôn  
erkhêo; ||| îson gar se thêôi teisousin Akhaïoi. |||

*Initial Framing* (522-23)

Do not dismiss their arguments or their embassy to you; |||  
Before this it was not your custom || to be angry with them. |||

^ *Similarity Recognition* (524-528)

We have also heard of the famous deeds of heroes in times past like this, || when terrible anger came  
upon any of them; ||| they became accepting of gifts || and persuaded by words. ||| I remember the  
following deed from long ago, not a recent event, || such as it was; ||| but I will tell you all as my  
friends. ||

^ *Exemplum* (529-596)

The Kouretes and the spirited Aetolians were fighting around the city of Calydon || and were struggling  
with each other, || ...

^ *Interpreted Outcome* (597-599)

Just so he warded off an evil day from the Aetolians || by yielding in his heart; ||| they no longer offered  
him many beautiful gifts, || but he himself warded off evil. |||

^ *Final Advice* (600-605)

But you keep these things from me in mind, || and would that no evil spirit turn you from it, my friend;  
||| it would be a worse thing || to defend |[ships which are aflame]|; ||| but come to the gifts; ||| the  
Achaean will honour you equal to a god. |||

### 7.3.3 Semantic description: rhetorical structure

Now a description of the rhetorical structure will be performed for the *paradeigma*. What will be seen here is that much of the important rhetorical relations in the *paradeigma* are internally oriented— that is, the rhetorical relations do not primarily underpin the 'logical structure' of construed experience, but rather that of the linguistic exchange from one interactant to another. Thus the comparison between the current unresolved situation in the narrative and the past narrative episode in the Exemplum is oriented to this task. The rhetorical structure internal to the Exemplum will not be discussed in detail here; it will have its own relatively self-contained rhetorical structure in keeping with its narrative function, and is less important in making the point about the overall 'internal' orientation of the *paradeigma*.

The Initial Framing generic stage contains the major rhetorical relation of contrastive extending. The contrastive relationship is 'aimed' at the addressee, to convey the message to the effect of 'you are concerned about x, but you should have regard to y'. Compare this with 'externally' or experientially oriented adversative constructions, such as the following extract from Thucydides:

Thucydides 2.54

Taxis	Logico-semantic relation	Clause
1 $\alpha$		egeneto men oun eris tois anthrôpois
1 $=\beta$	projecting: locution	mê loimon ônomasthai en tôi epei hupo tôn palaiôn, alla limon,
+2	expanding: extending: adversative	enikêse de epi tou parontos eikotôs [[loimon eirêsthai]]

There was a dispute among people || as to whether a plague was not mentioned in the oracle by their ancestors, but instead a famine, || but, as expected in the current circumstances, [[the opinion that it mentioned a plague]] won out. |||

In this example, the adversative rhetorical relation is experientially or externally oriented, because it is instrumental in construing a sequence of events– 'x was the case, but then y was the case'. This is quite different in character to the internally oriented contrastive relation in the Initial Framing in the *paradeigma*.

The Similarity Recognition stage has a main nucleus-satellite relation. Both nucleus and satellite each have an extending rhetorical structure; however, the main feature here is the logico-semantic relation between nucleus and satellite. Again, this is internally oriented to the linguistic exchange between speaker and addressee, where the satellite provides motivation for the claim made in the nucleus– 'I say x, because y motivates me to say so'. Phoenix is saying that his recollection motivates him to say that similar events have happened in the past.

For the time being , we will leave aside the rhetorical structure of the Exemplum and proceed to that of the Interpreted Outcome. It contains an externally oriented elaborating relation. The stage as a whole stands in an elaborating summative relationship to the Exemplum, also of external type. The stage of Final Advice has one co-nuclear rhetorical relation which is internally oriented antithesis– 'do not do x, but do y'. To these two nuclei are two satellites, each of which is related to its respective nucleus by externally oriented relations. In addition, and most importantly for the function of the *paradeigma*, the Final Advice is internally related to the Interpreted Outcome by justification– 'this is my interpretation of that past event; it justifies the nature of my advice to you'.

At crucial points, the rhetorical structure of the *paradeigma* is internally oriented to the linguistic exchange between speaker and addressee, and the comparison between

the past recalled event and the current state of affairs in the main epic narrative is mediated through these internal relations. This is the reason why the *paradeigma* is both similar and different to the simile. Both involve comparison, but the simile focuses on construing the comparison through construing a similarity in ideational configuration between the two states of affairs drawn into the comparison. In contrast, the *paradeigma* draws the comparison through distinct interpersonal moves by the speaker, achieved by a relatively covert implementation of signalling motivation, evidence and justification.

To at least some extent, we might suppose that the comparison must also be done in ideational terms, where there is some similarity in the sequence of events in the Exemplum to those of the main narrative. However, in order to make the points above, we have not had to deal with the rhetorical structure of the Exemplum in any way; the Exemplum may have any rhetorical structure whatsoever, but the internal relations described above are enough to show that the speaker is drawing a comparison which informs an advised course of action. In any case, if there is any ideational similarity between the Exemplum and the main narrative events, it is not sufficient in itself to make the kind of comparison which underlies the function of the *paradeigma* as a whole. If we were to omit the stages of Similarity Recognition and Interpreted Outcome— the generic stages that bridge between the past event and the advice given— not only is the force of the argument lost, but also the audience would have to expend substantial effort to know that a parallel is being drawn between the events of the past event and the events of the main epic narrative. Even if it is possible to see that a comparison is being drawn, it is not clear as to why this comparison is being made when these elements of the *paradeigma* are omitted. Thus it is unlikely that the nature of the Exemplum itself, in terms of its own rhetorical structure, contributes to the process of interpersonally oriented comparison in the *paradeigma*. This point will become clearer as the rest of the discussion of the *paradeigma* proceeds.

### 7.3.4 Sequence / figure / element and its lexicogrammatical realisation

If we examine the 'low-level' aspects of the semantic configuration of each stage and their realisation in the lexicogrammar, we find that the function of each stage is supported by the kinds of events that occur clause by clause. Additionally, the ways in which those events are combined with each other contribute. These events are realised metaphorically in some places, and is done so for some specific purposes.

If we examine the Initial Framing, mental and behavioural events predominate; however, these are realised metaphorically. We already know from the previous narrative– that a delegation has come to persuade Achilles to change his mind– and the preceding elements of Phoenix's speech that the main purpose of the speech is for Achilles to listen to what the delegation has to say without rejecting it outright. It is for this reason that we know that mental events are realised through material processes in the lexicogrammar of the first clause of the Initial Framing– *mê...muthon elenxêis mêde podas*, literally 'do not reject their story or their feet', interpreted as the realisation of 'do not ignore their arguments or their delegation to you'. The next clause realises the mental event of feeling anger more congruently (*kekholôsthai*), with the potential for the role of Sensor.

The main events clause by clause in the Similarity Recognition are also dominated by mental events, but here there is also a tendency to realise them incongruently, particularly when it is describing feelings of anger. One strategy is to nominalise the emotion and construe it as involved in a middle material process of coming over someone:

hote ken tin' episdaphelos kholos hikoi  
'whenever violent anger came upon them'

tin'	episdaphelos kholos	hikoi
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Range	Actor / Medium	Process: material: dispositive + middle
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The other strategy is to construe it in terms of a relational process, where the mental event or state is construed as an Attribute of the person involved.

dôrêtoi te pelonto

'they became accepting (of gifts)'

dôrêtoi	pelonto
Attribute	Process: relational: intensive + ascriptive

The differences in realisation may simply be to provide variation in wording and avoid repetition of the same kind of lexicogrammatical structure, which may be a valuable element in the persuasive strategy being adopted here.

Nominalisations in this setting provide a means of bringing into alignment two or more processes within a single clause. For instance, the term *klēa* 'famous' is technically an adjective, but neuter plural adjectives such as this one can take on the function of substantives<sup>249</sup> – 'famous things' – which is in turn the Head of *kleä [andrôn herôn]* 'famous things [of hero men]'. But this can be a metaphorical realisation of 'famous deeds' at the semantic stratum, in turn a reconstrual of 'people have acted famously'; this becomes apparent as the next clause in line 525 is complexed with this idea in an enhancing temporal sequence. It is thus a nominalisation which can be incorporated as a functional element within a ranking clause, itself participating in another process. In this case, what the nominalisation enables is the construal of a relationship between the mental events of the current speakers and material events of the past. In this *paradeigma*, this is particularly important, as what Phoenix is suggesting in the Initial Framing and Similarity

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<sup>249</sup> See Smyth and Messing (1974) p.273.



Recognition is that one's current mental attitude should be with reference to how people have acted in the past. Thus, even the relatively 'covert' patterns of lexicogrammar within a single clause reflect and construe the overall functions of the *paradeigma* as a whole. A similar argument can be mounted for the clause in line 527 *memnêmai tode ergon egô palai* 'I remember the following deed from long ago'.

In the Exemplum, there is a recurrent pattern of clause complexing, where clauses containing mental events are in an enhancing temporal or causal relationship to other clauses containing material events. This is particularly evident at the major points of the Meleager story, such as why Artemis stirs up war between the Kuretes and the Aitolians (533-535), Meleager's withdrawal from the battle (553-556, 565), the point at which Meleager begins to change his mind (587-588) and when he is finally persuaded to go out and fight (595-596). For the most part, these complexing relationships are realised congruently in the lexicogrammar, though in the case of the later events (particularly 587-588 and 595-596) they tend to be realised more metaphorically, particularly by construing his mental activities through a nominalisation (*thumos*) and thus as a discrete mental faculty or entity. This type of complexing in the sequences further supports the previously established practice of linking mental and material events in the previous generic stages. There is also evidence of a progression to more metaphorical means of realisation as the Exemplum proceeds; this may also be a means of covertly establishing a link between the events of the Exemplum and the metaphorical construal in the preceding stages. It also leads relatively seamlessly into a similar metaphorical construal in the Final Advice (597-598, 600).

In the Final Advice, the tendency to construe mental events as material processes has important consequences as to how responsibility is attributed to Achilles by Phoenix. In lines 600-601, the mindset of anger is construed as an external Actor and Actor performing a material process on Achilles as Goal. Furthermore the notion of willing acceptance of a gift is construed as a material dispositive process of intransitive movement to the gift (602-603); thus there is no construal of any mental event in then

clause. This may be part of the overall persuasive strategy– Phoenix is trying to assert that no blame will be attached to Achilles.

The effect of the low-level semantic and lexicogrammatical features in this *paradeigma* support the overall functions that this genre achieves. A recurrent pattern is that of linking mental and material events closely so that each informs the other; this fits with the overall purpose of Phoenix trying to change Achilles' attitude in order that he perform a desired action. This pattern is established in the initial stages of the *paradeigma*, and resonates within the Exemplum at major points in the past event that it relates. The other pattern to note is that of metaphorical construal of the events in many of the clauses. Metaphorical strategies are evident in the initial generic stages; however the Exemplum starts with relatively congruent construal and tends towards metaphoricity as it proceeds, slowly tying the Exemplum to the preceding stages. This metaphoricity also has consequences in the Final Advice, where the mental events are backgrounded in favour of a material course of action, thus supporting the function of the Final Advice in proposing a definite sequence of events that are a consequence of the mental attitude promoted in the Initial Framing.

### **7.3.5 Overall effect of the linguistic processes underlying the *paradeigma***

The essential overall feature of the *paradeigma* is that it is what might be called 'interpersonally oriented comparison'. Its point of similarity with the simile is that it compares one state of affairs to another– usually the current state of affairs in the main narrative to some other state of affairs which is temporally and spatially discontinuous with the current state of affairs, and is thought to be conceptually distinct up until the comparison is made. However, the motivations for such comparison are quite different in the simile and the *paradeigma*. Comparison by the simile allows the opportunity to reconstrue the main narrative event and thus guide

subsequent narrative events in a particular direction, and thus the effect of the simile is on how the narrative represents events. Therefore the simile is experientially oriented. However, the *paradeigma* performs comparison in order for the speaker to guide the addressee towards a particular course of action, and thus achieve particular interactional ends— particularly successful persuasion. For this reason, the *paradeigma* is a case of interpersonally oriented comparison.

One of the essential requirements for the *paradeigma* is that the current state of affairs has to be unresolved in some way— that is, the current state of affairs in the narrative is not taken as being a final outcome, but instead is a situation in which one must decide on a particular course of action, or to which one must react in some way. It is only in this way that a 'final outcome' can be achieved. The events described in the Exemplum and the Interpreted Outcome of the *paradeigma* are taken as a 'model' of the current unresolved situation, the way in which the situation should be resolved, and the desired final outcome.

One of the important features of the *paradeigma* is that the comparison is effected primarily by interpersonally oriented linguistic features, rather than any 'representational similarity' between current and past event. This is reflected in the internally oriented rhetorical structure in the generic stages. There is some 'experiential similarity' between the current and past event, particularly in the temporal or causal complexing or sequence between mental and material events in the Exemplum, where important events in the past state of affairs are construed to be motivated by the mental state of various actors. However, this similarity is not enough to draw the comparison between past and current event; instead, it provides major support to the interpersonally mediated rhetorical moves that create the comparison.

Therefore comparison in the *paradeigma* is mediated by a persuasive strategy. This persuasive strategy is carried out in a significant way by the rhetorical structure. However, metaphorical means of construal of events clause by clause also contribute.

Firstly, it provides variation in wording, which allows agnate meanings to be made in a sustained way, but at the same time avoiding any repetitive wording that might impinge on the persuasive function the *paradeigma* is supposed to have. Secondly, there is a tendency in the *paradeigma* where mental events, in the Initial Framing and the Similarity Recognition, are construed in the same manner as material processes in the lexicogrammar. The Exemplum is gradually tied into what is said in the preceding stages, and leads to the concrete advice given in the Final Advice, by gradually moving from a relatively congruent means of expressing mental events to this mode of metaphorical realisation. It also has an effect on the way in which the Final Advice is given, in that Achilles is not attributed blame for his actions in the past, thus contributing to the overall persuasive strategy.

Thus we have a structure of the *paradeigma* that is underpinned by interpersonally oriented rhetorical structure, within which we have mental and material events correlated with each other, and realised congruently or metaphorically at selected parts to support the thread of persuasion. The function of these linguistic features is to use the comparison of current and past events to provide the motivation for adoption of a particular mental attitude by the addressee. This new 'mindset' urged by the speaker is intended to inform a particular course of action in the (as yet unresolved) current state of affairs, in order to promote its successful resolution. In the most general terms, the function of a *paradeigma* is in the context of a particular situation which is up for negotiation in some respect, where the current circumstances require some form of action to be taken in response by the addressee for the resolution of the situation at hand. In this context, the function of the *paradeigma* is to advise the addressee of a course of action by pointing out to the addressee that the current situation has similarities with a past event which had a favourable outcome. This past event, and its resolution, is used by the speaker as a model for action in the current situation. Thus the *paradeigma* is a form of comparison, like the simile, but oriented towards the achievement of social action.

## 7.4 Simile + *paradeigma* = theory

So far we have talked about two kinds of comparison within the Homeric epic, the simile and the *paradeigma*. They have quite different functions in the *Iliad*, and this difference may be characterised as metafunctional in a broad sense. The simile is ideationally oriented, in the sense that its major function is to reconstrue the narrative event. The *paradeigma* is interpersonally oriented, because its major function is to prompt resolution of the narrative event with a particular social action. The simile and the *paradeigma* are largely discrete, separate genetic activities, and so the functions that they perform on narrative events are largely independent of each other.

The simile is by far much more common, and thus the epic is more involved with experiential or ideational reconstrual. Not only does this happen through the full-blown simile, but also there is evidence that there are concurrent linguistic resources to carry out simile-like comparisons through the functions of lexicogrammatical elements of the clause— a 'grammaticalised' variant of the simile. We also know that the reconstrual of experience, and grammatical metaphor, are central features of scientific discourse in English, and we are looking to see similar patterns in those ancient Greek texts that consciously reflect on experience, or are 'scientific' in some way. However, we cannot say that the Homeric simile in general, or the *paradeigma*, appear to consciously reflect on experience in order to produce 'knowledge', despite the function of both seeing something in the light of another thing, and the reconstruing function of one, and the presence of significant GM in the other.

However, there are certain places in the Homeric epic, where there appears to be some degree of conscious reflection on the nature of the world in which humans live, and there are some interesting linguistic features associated with them. In these parts of the epic, there is something approaching a 'theory' about the narrative events in question. In particular, it appears that in these places the functions of the simile and the *paradeigma* are deployed simultaneously. It has a function in a situation where a given state of affairs is 'up for negotiation', and the overall effect of such passages is

that they prompt the audience to consciously react to the portrayal of events in some way. The particular passage under consideration here is a famous 'simile' in the sixth book of the *Iliad*<sup>250</sup>, which demonstrates how these functions are simultaneously deployed to produce this effect.

#### 7.4.1 Contextual description: Field / Tenor / Mode

This 'simile'— for the purposes of this discussion, best called a 'reflection' to avoid confusion— is within the beginning of a speech by Glaucus to Diomedes in the middle of the battlefield. Therefore it is like the *paradeigma* as discussed above, in terms of orientation to the audience of the epic. Thus we are able to put ourselves in Diomedes' position as the addressee of the reflection, and conduct the linguistic analysis from this position.

What prompts this reflection by Glaucus is Diomedes' enquiry as to his lineage when they confront each other on the battlefield, which is a means of trying to establish his combatant's identity<sup>251</sup>. The main point that Glaucus is trying to get across in response is that there is not much point 'in the scheme of things' in asking about lineage, because successive generations of men are not eternal, but come and go. Therefore, the main aim of Glaucus is to get Diomedes to regard something in a certain way, which is supposed to inform his action of asking about lineage or not. This is quite like the function of the *paradeigma*, because it is asking the addressee to adopt (or not adopt) a particular form of social action, and to do so by seeing a particular state of affairs in a certain light. This takes place within the larger scheme of Glaucus establishing his identity, where the reflection is intended to be a 'preamble' to indicate to the addressee what importance the subsequent description of his lineage has.

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<sup>250</sup> Homer *Iliad* 6.146-149. This has also been viewed as a metaphor that fits in with a (later) Western literary tradition of representing the cycle of life and death as a plant's life cycle— see Lakoff and Turner (1989) p.12-12

<sup>251</sup> Homer *Iliad* 6.123-143.

We can now attempt a description of the Field, Tenor and Mode of this reflection as follows:

Field: speaker asks the addressee to regard his family background with reference to the importance of this in the overall organisation of the experienced world.

Tenor: speaker and addressee do not know each other– they have met for the first time. Speaker responds to addressee's attempt to establish his identity. Text production and reception construed to occur in real time.

Mode: written channel, spoken medium (of oral epic poetry); progression from 'metatextual' comment on the addressee to a explanation of the basis of this comment by means of reconstruing the subject matter in terms of a conceptually unrelated phenomenon.

The description of the context of situation as above combines elements of the *paradeigma* and the simile. The focus of the activity of the reflection is oriented towards social action, but at the same time there appears to be equal weight given to the reconstrual of the subject matter that informs the social action being advised, and thus part of the primary function of the reflection is also to reconstrue experience.

Some evidence for this can be found in subjective impressions of how this reflection fits in with the rest of Glaucus' speech, Diomedes' initial enquiry, and the epic narrative as a whole. The whole activity of the reflection– as well as Diomedes' enquiry– seems at odds with the physical situation, where weapons are drawn and aimed at each other in the flurry of battle. However, it is quite well known that the Homeric epic can 'suspend reality' for the purposes of expounding on an aspect of the narrative and providing variety for the audience. So we can accept this incongruity– particularly with the use of metaphor– as being within the limits of the Homeric epic.

However, even if we consider the reflection as a response to Diomedes, it appears that the reflection is 'straying off the track' of what Glaucus wants to achieve. It appears that the comparison of humankind to leaves on a tree 'takes over', temporarily pushing Glaucus' thread of argument into the background. The result of this is that we have a 'hanging comparison' which has little function in the rest of Glaucus' description of his lineage.

So it appears that on a subjective impression, without applying any explicit linguistic theory for analysis, that the reconstrual of experience has equal status with the function of persuading a person to a particular social action. This is distinct from the function of the *paradeigma*, where the comparison is always with reference to a persuasive strategy. In the reflection, the comparison takes on a life of its own, in a way distinct from the urging of social action. The reflection is also distinct from the simile, in that there is also a concurrent interpersonal strategy that frames the comparison, and the comparison does not result in a reconstrual that has a lasting effect on the subsequent description of Glaucus' family; the comparison is only 'for the moment'. Instead, the reflection sets simile-like reconstrual and *paradeigma*-like interpersonal activity in the context of each other. The linguistic analysis of this passage bears this view out.

#### 7.4.2 Semantic description: generic structure

Again, the first step in the linguistic analysis is to attempt to formulate a generic structure for this reflection, which is as follows:

Advice ^ Modelled Premise ^ Exposition ^ Reconstrual

This can be applied to Glaucus' reflection as follows:

Homer *Iliad* 6.146-149



Advice

Tudēidē megathume, tīē genēēn erēeineis? |||

^ *Modelled Premise*

hoīē per phullōn genēē, || toīē de kai andrōn. |||

^ *Exposition*

phulla ta men t' anemos khamadis khēei, || alla de th' hulē  
tēlethōōsa phūei, || ēāros d' epigignetai hōrē; |||

^ *Reconstrual*

hōs andrōn genēē hē men phūei || hē d' apolēgei. |||

*Advice*

High-hearted son of Tydeus, why do you ask me of my lineage? |||

^ *Modelled Premise*

Just as the generation of leaves is, ||| so is the generation of men. |||

^ *Exposition*

The wind sheds the leaves down to the ground, ||| but the forest buds and grows them back, ||| when  
springtime come around;

^ *Reconstrual*

In this way, the generation of men grows || and then ceases to be. |||

The function of the first stage of Advice is to state to the addressee what particular social action should be adopted. Here Glaucus is effectively telling Diomedes what to think, which cannot be directly called 'social action'; however, the way of thinking suggested is intended to shape how Diomedes is to linguistically interact with him, and thus Glaucus is effectively asking for a particular kind of social action. It will be noted that the lexicogrammatical form of the clause in the Advice is an interrogative; however it will be argued that this is a form of GM later in this discussion.

The Modelled Premise is named as such for two different reasons. Firstly, it provides the basis for the social action being suggested by Glaucus. Secondly, it is also the basis for the simile-like behaviour– the focus of the comparison being made. This stage also makes explicit what is being compared to what, and uses this as the launching point for further expansion and elaboration in the subsequent parts of the reflection. Thus this stage does 'model' the issue under discussion, by virtue of its comparing activity.

The stage of Exposition further elaborates on the phenomenon that is compared to, or is the model for the issue under discussion by the speaker. This exposition in a sense 'builds the case' for the comparison, and therefore justifies the claims that are made in the Modelled Premise. However, there is no reference within the Exposition to the main issue under consideration.

The function of the Reconstrual is to present a recasting of the main issue of the reflection in light of the events to which it is compared. In a sense this is an restating elaboration of the main issue, analogous to what happens in the simile. But in addition, it also completes the line of persuasion by the speaker to urge the addressee to regard the issue in a certain way, and thus to prompt certain action from him. However, there is no direct mention in this stage of the main issue of the reflection, or of the desired outcome. Inferences have to be drawn by the addressee to link this

back to the preceding stages of the reflection. However the Reconstrual prompts the addressee to make these linkages.

The generic structure of this reflection is quite different from either the simile or the *paradeigma*. Like the simile, we have a comparison of an element of the immediate context that is compared to a generalised, relatively abstract state of affairs. As a result, the narrative issue is reconstrued in terms of the compared state of affairs. However, the act of comparison in the simile obtains between two generic stages; in the reflection here, the comparison is made within one generic stage (Modelled Premise) with a separate Exposition of the scene to which the narrative issue is compared. Furthermore, in this particular reflection, the comparison is 'grammaticalised', by being realised in a particular type of clause complexing relation, that of manner and comparison. This is analogous to the other 'grammaticalised' comparisons cited earlier in this discussion, where the comparison is expressed in the syntagmatic relation between two lexicogrammatical entities. Thus we have concurrent resources deployed simultaneously in the reflection– to construct an extended comparison, and the ability to grammaticalise this comparing function.

Like the *paradeigma*, the overall function of the reflection is to prompt some kind of social action. However, the kind of action being proposed is of a rather more abstract nature. In the *paradeigma*, what is desired is for the addressee to think in a certain way about a particular situation, and then act materially in accordance with those thoughts. In the reflection, however, what is desired is for the addressee to think in a certain way about a more general issue. Glaucus is not asking Diomedes to think in a certain way about Glaucus' family alone; rather, he is asking him to adopt a particular perspective on humankind in general. Secondly, the *paradeigma* refers to a past concrete action or set of actions, whereas in the reflection the reference is to activities that are construed to be going on habitually or in an ongoing manner. The lexicogrammar has an important role in this; this will be discussed in more detail later. Thirdly, what Glaucus is asking Diomedes to do is expressed relatively indirectly– there is no 'Final Advice' given to Diomedes.

These differences may in part explain why the generic structure of the reflection is substantially different from that of either the *paradeigma* or the simile. If there are substantial differences in this, then it is also likely that the overall function of the reflection is quite different also. However, the different generic structure may also be due to the semantic events and lexicogrammatical processes within each stage, as these in a sense 'constitute' the functions of each stage. Firstly, as with the discussion of the simile and the *paradeigma*, the rhetorical structure of each stage, and the 'logical' relationship of each stage to the other, will now be discussed.

### 7.4.3 Semantic description: rhetorical structure

The rhetorical relations that have most direct bearing on the functions of the reflection are those that obtain between the various generic stages. Most of the stages are only one clause long, and do not have any real internal rhetorical structure that can be determined; any such relations are those internal to sequences, realised as clause complexing relations. The main feature of the relations between stages is that they deploy simultaneously internally and externally oriented features, paralleling the way in which the reflection combines the functions of the simile and the *paradeigma*.

Firstly, there is a simultaneous relation of externally oriented cause and internally oriented motivation between the Advice and the Modelled Premise. Essentially the internally oriented aspect of this relation is 'I say x (Advice) because y (Modelled Premise) motivates me to do so'. From the external orientation, the relation takes the form of 'x (Advice) is so and should be said to be so, because of, and as a consequence of, y (Modelled Premise)'. Thus internally- and externally-oriented rhetorical relations are deployed simultaneously. This point will become clearer once we examine the lexicogrammatical configuration of the clauses that constitute each stage of the reflection.

The view taken here is that both kinds of semantic relations are present simultaneously. Two other interpretations are also possible. The first of these is that there is ambiguity in the rhetorical structure, where we cannot decide with any certainty that the relationship under examination here is of one type rather than another. The problem with this view is that it makes two assumptions— first, that the framing linguistic theory works perfectly in any instance of linguistic analysis, and secondly that any given linguistic feature must neatly fit into one single linguistic category rather than another. The view of ambiguity cannot be supported, as there is no claim in this thesis that the theory is complete or 'perfect' (especially as applied to ancient Greek). Furthermore, indeterminacy in analysis is often present, not only in linguistics, but also when human behaviour is examined in other disciplines<sup>252</sup>. The third reason why this view might be rejected is in the terms within which the discussion in this thesis works, and functional linguistics generally. It is well established that linguistic behaviour fulfils more than one function simultaneously—the most obvious example of which is the mapping of the three metafunctions onto the one unit of lexicogrammar, where a given nominal group has the functions of Actor (experiential), Subject (interpersonal) and Theme (textual) mapped onto it. Furthermore, any theory of metaphor depends on a notion of a multiplicity of functions or meanings associated with any given metaphor. Therefore there is no reason in principle why similar kinds of simultaneous deployment occur at other linguistic strata, including semantics. We can view internal and external rhetorical relations as being analogous to the metafunctions in the lexicogrammar, and therefore see them as being carried out simultaneously. RST has been criticised for implicitly stipulating that there must be only one kind of semantic relation between two subunits

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<sup>252</sup> An example of this is the work of the psychologist Eleanor Rosch who developed the notion of category prototypes in visual perception, which assumes that there will be certain instances of 'borderline' or 'indeterminate' membership of a perceptual category— see Rosch, Lloyd et al. (1978) p.41-43 which relates this indeterminacy to contextually- and culturally-related factors. This issue also is of those who work within the theory of semantic fields, see Lehrer (1974) p.90-91.

of text<sup>253</sup>. However, there is nothing within the theory of RST to preclude such 'duality' of characterisation.

The second view that can be adopted here is that some kind of metaphorical process is operative here. For instance, the resources that have been previously developed to construe a causal relation, for instance, are now used to construe motivation, but with a 'residual' sense of cause from being interpreted against the previously established tendencies of the system of rhetorical relations. However, there is a problem, as indicated by the phrase 'for instance' in the last sentence. We have no reason to believe that the resources for construing cause developed prior in time (along any time axis) to those construing motivation, or that there is a tendency with time for motivation to move from its exclusive means of construal to be construed by the same means as cause. Cause and motivation, both at the semantic and lexicogrammatical strata, sit side by side in the Homeric epics, and, in this case, they happen to coincide.

One significant piece of evidence that supports simultaneous meanings is that, in the text, there is no connecting particle in the second stage that explicitly brings it into relation with the first. There is the one particle *per*, but the function of this is internal to the Modelled Premise stage to 'intensify' and to emphasise the contrast between the two paired clauses<sup>254</sup>. This 'omission' is set against the general tendency in Greek to explicitly signal such relations with particles and conjunctions. Thus it appears that the text leaves open the possibility of interpreting the relation in more than one way simultaneously, and this is the interpretation adopted here. It rejects the notion of ambiguity in instances where functions are likely to be combined in a given instance of language use, but also leaves open the possibility of metaphor, the presence of which cannot be ruled out, but whose direction cannot be determined. Thus the interpretation of concurrent rhetorical relations encompasses the meaning construed by the wording in the given co-text and context of situation, and the meaning

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<sup>253</sup> See Martin (1992) p.258-260, as part of a general critique of RST; however, this does substantially predate the recent elaboration of RST in Butt and Matthiessen (draft, 2000) and Stuart-Smith (2001).

<sup>254</sup> See Denniston (1954) p.481-483 for the function of this particle in Homer.

construed by the wording as interpreted against the previously established tendencies of the semantic and lexicogrammatical systems. It may also be viewed as a case of 'rhetorical semantic junction'.

Similarly, concurrent internally- and externally-oriented rhetorical relations hold between the Exposition and the Reconstrual. The Modelled Premise also stands in the same relation to the Exposition, since the Reconstrual stands in an elaborating relationship to the former. The relationship is internally oriented because 'y (Exposition) is presented as evidence of x (Modelled Premise / Reconstrual)', but also externally oriented— 'x is the case as a result of y'. In the case of the relationship between Exposition and Reconstrual, it is explicitly signalled by the conjunction *hōs* 'in this way, likewise'. This is particularly interesting, as the conjunction may also carry an experiential function within the clause— this will be discussed later in the section on the lexicogrammar of the reflection.

Thus, the striking feature of this reflection is that the generic stages are related to each other predominantly by two rhetorical relations with dual orientations to the construal of experience and the interpersonal strategy of the speaker to the addressee. These semantic relationships operate simultaneously and not independently of each other. This is analogous to the simultaneous mapping of different functions onto the clause, but in this case the phenomenon takes place at the level of semantics, where different logico-semantic functions are mapped onto the same rhetorical relation. This has the effect of intertwining the functions of construing experience and persuasion with each other. This is important, and later it will be argued that this combination of functions underlies to a large extent the practice of conscious reflection, at least in the Homeric epic.

#### 7.4.4 Sequence / figure / element and its realisation in lexicogrammar

The salient features of the low-level semantic phenomena and their lexicogrammatical realisation will now be discussed. One prominent feature is the 'grammaticalisation' of various functions of the reflection— that is, some of the important functions of the reflection as a whole are deployed through functions that operate at the level of the clause. Another feature is a significant degree of metaphor, which is particularly important in the determination of the function of a generic stage. It is this issue to which we will first turn.

The clause that is found in the Advice stage is an interrogative. At first glance, therefore, it seems inappropriate to label this stage 'Advice', as it appears that the speech function being realised is that of requesting information, which is typically realised in English (and in Greek) by interrogative clause constructions<sup>255</sup>. However, it appears that in this passage the question is to some extent a 'rhetorical question', and thus not realising the speech function of requesting information. Therefore we have some kind of speech function that is realised metaphorically as an interrogative in the lexicogrammar. To determine which type of speech function, we have to interpret the stage in the context of the passage. The most important clue is found where the subsequent clauses are put in contrast to the reflection as a whole:

Homer *Iliad* 6.150-151 ei d' etheleis || kai tauta dăêmenai, || ophr' êu eidêis  
hêmeterên genêên, || polloi de min andres isasin; ||

...but, even so, if you wish || to learn of these things, || so that you may know thoroughly about our family, || many men know of it;

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<sup>255</sup> See Halliday (1994), Matthiessen (1995) and Halliday and Matthiessen (1999).



The logical conclusion is to treat the interrogative in the first generic stage as the metaphorical expression of the following:

*ou dei || se erēinein genēēn*

'it is not necessary || that you enquire about our lineage'

or possibly

*mē erēine genēēn*

'do not enquire about our lineage'

Thus the speech function realised is that of giving information or asking the addressee to do something, and thus it is appropriate to assign the functional label of Advice to this first stage. Thus the interrogative is an example of metaphor within the interpersonal metafunction. Thus an appreciation of the metaphorical process is essential to understanding the function of the first stage of this reflection.

The first instance of the grammaticalisation of various functions associated with the reflection is within the Modelled Premise. The explicit comparing is realised by an enhancing clause complexing relation of Manner. The same function obtains between generic stages in the simile, but here it is realised at the level of wording. Again, it is analogous to other instances of grammaticalised comparison. The other feature to note is that each of the clauses construes a relational process in a Carrier / Attribute configuration. The respective Attributes (*hoiē, toiē*) cohere with each other lexically, and thus the overall effect is to co-categorise both the *genēē phullôn* 'the race of leaves' and the *genēē andrôn* 'the race of men'. This co-categorisation also underlies the comparing function of the Modelled Premise.

As in the simile, the Exposition in this reflection is dominated by material processes. The significance of this is as for the simile– it guides the construal of the events in question in the same terms in the Reconstrual. However, it does not do so in a

thoroughgoing way. For instance, the wind is construed to be Actor and the leaves Goal. However in the Reconstrual, while the processes are material, they are of middle ergativity with 'the race of men' being Medium; the choice of Agent is not made for these clauses. Thus the Exposition guides the development of the picture of the Reconstrual within a particular experiential framework, without enforcing a rigid 'event model' upon it. One of the consequences of this is that certain options are left open in the Reconstrual, and it is the responsibility of the addressee to 'fill in the blanks' if that is what is desired. This opens up the potential for speaker and addressee to jointly develop a construal of experience through use of the lexicogrammatical resources they put at each other's disposal.

As with the rhetorical structure, there is some evidence of duality of function at the lexicogrammatical level. As discussed before, the conjunction *hôs* 'in this way, likewise' explicitly marks the rhetorical relation of the Reconstrual to the Exposition. It has an important role in guiding the direction of development of the Reconstrual, and thus has an important textual role. But at the same time it is possible to see that *hôs* has a direct experiential role in the clause, fulfilling the function of Circumstance: manner. In a certain way this is the grammaticalisation of the dually oriented rhetorical relations discussed earlier. Thus the functions of argument development and experiential construal are deployed simultaneously. The effect of this is to simultaneously 'experientialise' the argument development, and to use construed experience to inform how the text is developed.

It is admitted that this is not too different from the use of *hôs* in the typical Homeric simile. However, there is a less convincing case for it having any experiential function in the simile. The main reason lies in the fact that the simile compares a particular narrative event with a relatively abstracted generalised event. However, in this reflection, two generalised events are drawn into comparison. The nature of these events is directly realised in the tense, aspect and mood selections of the various generic stages. In the simile, the only consistency is in the use of an imperfective aspect throughout all stages, but with past tense deployed in the main narrative events,

and present tense in the main focus of the generalised event<sup>256</sup>. In terms of mood, there is the option of using the subjunctive mood to express a general or habitual condition<sup>257</sup>, whereas indicatives only are used in the main narrative events.

In this reflection, however, present indicatives are largely used in the Modelled Premise, Exposition and Reconstrual to indicate a state of affairs that is thought to hold generally<sup>258</sup>. Thus there is no systematic contrast in tense, aspect or mood selections between the compared scenes. However, it is also the case that the present indicative is involved in the construal of events happening at the time of speaking, and that if two complexed clauses each contain a present indicative, then those events are happening concurrently as part of a larger scene<sup>259</sup>. This is typically the pattern that can be used in extending clauses, such as in this example of Herodotus that discusses that nature of the crocodile:

Herodotus 2.68 tiktei men gar ôia en gêi || kai eklepei || kai to pollon tês hêmerês diatribei en tôi xerôi

It lays eggs on land || and hatches them there, || and spends most of the daytime on dry land

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<sup>256</sup> For example, see Homer *Iliad* 8.559, where the present tense is used with the process of the stars being seen (the main focus of the generalised event) with perfect tense used in the accompanying events. However, this use of the perfect tense is often used in Greek to denote presently or concurrently occurring events, and there are many verbs with 'reduced paradigms' such as *oïda* 'know' and *memnêmai* 'remember', where all verbal forms with present tense morphology have 'died out' of the paradigm, and those with perfect tense morphology take on the functions associated with the realisation of the present tense. For this phenomenon, see Smyth and Messing (1974) p.434. This strengthens the case that present tense is deployed primarily in the focus of the compared generalised event.

<sup>257</sup> For an example of this, see Homer *Iliad* 15.382.

<sup>258</sup> For this, see Smyth and Messing (1974) p.421.

<sup>259</sup> It is quite possible that the use of the present indicative to represent generalised conditions developed later than its use in construing activities that are occurring at the time of speaking. However, this progression cannot be established, and all that can be said that these are different functions that can be mapped onto the same morphological forms.

This example describes the behaviour of the crocodile through extending additive clauses, each of which contains a present indicative verbal form onto which the function of habitual general behaviour is mapped. This results in a picture being built up of the crocodile where the crocodile is capable of initiating all of these kinds of actions— that these actions 'belong to' the crocodile. What happens in the reflection, where the compared events both are construed by processes whose tense and aspect are mapped onto the present indicative, is the illusion that they are in a sense happening concurrently, and therefore are 'connected' in some way. Just as the various behaviours of the crocodile are portrayed as interrelated within the one animal, so too are the behaviour of the generation of humans and leaves. Thus some of the important aspects of linking the compared states of affairs are realised by the same tense and aspect selections in the construal of both. This phenomenon operates across the generic stages, but within the overall activity of reflection.

There is an interesting consequence of this connection between two entities like this through the lexicogrammatical resources, if we try to draw out some more parallels with Herodotus' description of the crocodile. In the passage from Herodotus, the present indicatives are associated with processes that each construe the behaviours that are thought to belong to the one entity, the crocodile. In the same way in the reflection in Homer, the present indicatives are associated with processes that construe both the behaviour of men and that of leaves on a tree. It is possible that these choices in the lexicogrammar predispose the addressee to the interpretation that these two behaviours are manifestations of a more general principle or 'intelligence' that informs or guides the behaviour of both. In summary, the two compared phenomena are not merely analogous— instead, through the consistencies of lexicogrammatical selection, they are construed to be homologous, both manifestations of the same guiding principle. This principle is not articulated in any way; if it were, it would assume the status of a conscious 'theory'. However, this

reflection makes many of the linguistic selections to put both speaker and addressee in a position to propose such a theory.

#### **7.4.5 Overall effect of the linguistic processes underlying the reflection**

We have initially proposed that the linguistic configuration of the reflection is substantially different from that of the simile and the *paradeigma*. On examining this in closer detail, we find that the 'theorisation' that is present in the reflection is due to a combination of the functions of both the simile and the *paradeigma*. This combination is associated with a different generic structure, significant differences in the nature of the rhetorical structure, and particular patterns associated with sequence / figure / element semantic patterns and their realisation in the lexicogrammar. The overall effect of these differences is to set the activities of reconstrual and persuasion in the light of each other— the reconstruing function is mediated through a persuasive strategy, and the persuasive strategy relies upon the reconstruing function to produce its effect. This function of the reflection— distinct from the simile and the *paradeigma*— can be paraphrased as follows: 'x is like y because I can persuade you that it is so, and I can persuade you successfully of my argument because x is like y'. These new characteristics of the semantic and lexicogrammatical functions of the reflection are associated with a new kind of context of situation which is a combination of that found with the simile and the *paradeigma*. That is, the reflection is deployed when the nature of the Field is 'up for negotiation' in some way— where the nature of the issue is relatively 'unknown' in experiential terms, and the speaker intends to prompt an addressee to regard the issue in a particular way by modelling it in terms of some other, more directly known phenomenon. Here, this combined strategy works on a relatively small scale to change someone's ideas as to how to construe a particular phenomenon, set within a larger strategy of modifying the addressee's behaviour. However, this has the potential to be applied to all kinds of conscious reflection on experience which is yet to be reflected upon in the public

domain, or whose construal is not yet settled. So long as conscious reflection is valued within a speech community, this kind of linguistic activity will be maintained. However, language and its semiotic context co-evolves, so the converse is true as well— conscious reflection will be a valued activity in a speech community so long as the appropriate linguistic behaviour to do so is maintained.

The major linguistic feature of the reflection that explains a large part of its functions is its relational structure. The dual orientation of the important relations between generic stages has already been discussed before. The other associated feature with these relations is that their realisation is 'open'; in contrast to many Greek texts, there is little in the way of explicit conjunction to more narrowly define the relationship, and consequently the lack of such conjunction allows this dual interpretation. This is in a sense analogous to the 'loss of information' found in various types of grammatical metaphor in scientific discourse in English— for example, the nominalisation of complex processes with participants into complex nominal groups where the unpacking of such groups out of context is ambiguous, because the nature of the process is underspecified<sup>260</sup>.

There is very little rhetorical relational structure internal to each stage. However what is found is that some of the functions that are usually carried by rhetorical structure are now 'grammaticalised'. The Modelled Premise features a clause complexing relation that explicitly compares men to leaves, and this complexing is carried out by the wording of each clause, particularly the occurrence of the '*hoiē...toiē*' construction which co-categorises the two compared events. It also separates out the act of comparison from the more detailed exploration of the model adopted, compared with the Homeric simile which combines the two functions within the one generic stage. Thus this grammaticalisation also has a role in changing the generic structure of the reflection away from a narrative focus / paralleling progression to a model / exposition staging of the activity. A consequence of this is that the issue under

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<sup>260</sup> See Chapter 5 for discussion of the notion of 'remeaning' in metaphor, and see Halliday (1998) p.226-227.

consideration in the main stream of the text and modelled in the reflection need not participate in, or be relevant to, a narrative structure. Potentially any kind of construal of experience— whether it is part of a narrative or not— can now be the subject of extended comparison and modelling. Thus, this change in generic staging at least opens up the potential for a new kind of cultural activity. This in turn can function in new kinds of context of situation, where the social activity going on is one of conscious reflection in addition to the reconstrual of experience alone.

The other potential that is opened up in the reflection is for the reconstrual of events to be done jointly by two or more people participating in a given linguistic exchange. In contrast, the simile's reconstrual of a narrative event is 'closed', because the lexicogrammar of the compared event directs more closely the way in which the narrative event is subsequently reconstrued. In the reflection, however, there is a subtle shift to more ergative processes in the reconstrual, which leave open certain participant roles, particularly the Agent in material processes. It is then up to both speaker and / or addressee to further reflect on the nature of these 'missing Agents', or at least to suspect that what they might already think is the Agent in a series of processes might not be what they originally thought it to be.

The importance of the function of modifying an addressee's behaviour must not be underestimated. This was initially evident in the *paradeigma*, but it also provides the framework in which the reflection operates. The point of the reflection is also to get the addressee to modify his behaviour by regarding the salient issue in a new light. As a result, the addressee is told what to think, as well as how to behave which is thought of as based on how to think. This makes it more likely that the participants who are involved in a linguistic activity of this kind will actively engage in further reflection on the issue, whether it be proposals to 'fill in missing Agents' or describe the nature of some other part of the configuration of the model under discussion.

The simile, the *paradeigma* and the reflection all engage in some form of comparison. However, only the reflection compares two habitual or generalised states of affairs to

each other, and construes both with tense and aspect selections which are mapped onto morphological verbal forms that denote the present indicative. However, the present indicative is also used for concurrent processes in other texts, and is often used in extending sequences, where several events are thought to constitute or lie in the domain of the overall behaviour of some larger entity. The consequence of this is that the compared states of affairs in the reflection are also potentially thought to be constituent behaviours that are part of some other larger entity that controls or influences these behaviours. Combined with the non-specification of Agents in the Reconstrual, this prompts both speaker and addressee to think the events of the main issue are like those of other events in other areas of experience because they are both caused by some more abstract controlling entity that lies outside of direct experience. In this reflection, this is not elaborated upon, but leads the way for a development of a 'theory' that may function as an account of this controlling entity.

This last point also shows evidence of the linguistic 'engine' that drives the inductive cognitive patterns that lead to the formulation of such a theory. The basic assumption about the practice of science is that it is driven by induction— that is, that there is a process of comparison of similarities and differences between related phenomena to arrive at a general 'rule' that explains the behaviour of the 'fundamental' aspects of each phenomenon. However, the examination of the *paradeigma*, the simile and the reflection in Homer shows that it is not as simple as it sounds. Phenomena are not similar or different intrinsically, and comparing phenomena to each other does not happen automatically and independently of other semiotic and cognitive behaviour. Such phenomena have to be construed in such a way through linguistic resources to enable similarity and difference to be construed, and it appears that the construal of some individual phenomena is in part driven by the wish of the speaker to construe similarity or difference *per se*. Thus comparison between the phenomena under question is also linguistically mediated, and in turn takes place within the environment of particular forms of cultural practice. The process of induction also appears to be linguistically driven. If we take up the notion of induction as detecting



regularity and providing an account of this regularity<sup>261</sup>, we can see that the use of linguistic resources underpins this. Induction, in linguistic terms, is the process of detecting regularity in construal, and the account of how that regularity came about is essentially producing discourse about the various participant and process roles involved in those construals. The forms of comparison found in the Homeric epic do not go so far as to propose an account of these roles; however, the activities of comparison and subsequent reconstrual are such that they provide the potential for such accounts to be made.

## 7.5 Explanation in the Hesiodic epic

We have presented the reflection in book 6 of the *Iliad* as being a text that combines the functions of the Homeric simile and *paradeigma*. The overall effect of this combination is to simultaneously deploy the semiotic activities of modelling by comparison and drawing analogy to prompt certain ways of thinking and behaving. This results in a conscious reflection on the experienced world that provides the potential for an overt theory to be developed which explains the similarity or difference between two or more phenomena.

As mentioned before, no overt theory is actually discussed or developed in this reflection despite the potential to do so. However, there is also a concurrent tendency in the epic of both Homer and Hesiod to provide explanations of given general situations that are part of human experience. The explanation is most often of divine character— that is, the given part of human experience is explained in terms of the happenings initiated and conducted by the gods, which then directly impact on the

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<sup>261</sup> The notion of induction as an explicit theory of reasoning, and its relationship to the observation of several instances of related phenomena, emerged in the Western intellectual tradition with Francis Bacon's *Novum Organum*— see Ladyman (2001) p.23-28 and more generally *ibid.*, p.14-30.

human plane. This feature is present from time to time in Homer<sup>262</sup>; however, it is one of the major features of the Hesiodic epic *Works And Days*.

The overt purpose of this epic poem is to advise Hesiod's brother Perses on how to conduct his domestic life. However, this is often used as an 'excuse' to relate mythological stories whose events are deemed to have had a lasting impact on human affairs. Sometimes, the link between mythological events and the advice to Perses is quite tenuous indeed; however, the alternation between storytelling and advice is a recurrent pattern within the poem. In this sense, it is like the *paradeigma* and the reflection, because a construal of a past event is intended to inform the advice which the poet gives to his audience, and thus influence the latter's thinking and behaviour. However, the past event is not at any time intended to be analogous to any given human events, or to the action to be adopted by the addressee. Thus, the story does not provide a 'model'. Instead, the story reaches a conclusion (rather like Hasan's notion of the Finale in the generic structure of the nursery tale) which is meant to directly result in a current state of human affairs.

One such example from Hesiod is the story of Pandora opening the jar containing evil<sup>263</sup>. This story is used as one explanation of why human experience is replete with toil and misery, though there are small things in humans' favour that sustain them against this<sup>264</sup>. This view of the world is intended to inform the addressee's actions in life— that Perses also, despite his greater inheritance share<sup>265</sup>, must also work according to the limitations of human activity and experience so as not to be overtaken by the travails of human existence.

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<sup>262</sup> For example, see Homer *Iliad* 9.533-540, which is part of Phoenix's speech to Achilles— the same speech in which the *paradeigma* is contained. In this section, the god Artemis is angry at not being offered sacrifices by Meleager's father Oineus, and so sends down a wild boar to destroy Oineus' kingdom.

<sup>263</sup> Hesiod *Works And Days* 54-105.


<sup>264</sup> The other story used to back up this claim is the story of Zeus creating successive generations of men, the later ones being of worse condition and circumstance than the preceding races— see Hesiod *Works And Days* 109-178.

<sup>265</sup> See Hesiod *Works And Days* 37-41.

### 7.5.1 Generic structure and context of situation (Field / Tenor / Mode)

The 'coarsest' generic structure of this passage can be characterised as follows:

[Divine Motivation ^ Divine Initiating Event ^ Divine Sequent Event ^ Final Event]  
^ [Human Initiating Event ^ Human Placement] ^ Human Sequent Event ^ Human  
Final Event ^ Human Finale ^ Moral



This is essentially a variant of Hasan's nursery tale structure. However, the main difference is that there is a sharp distinction between human and divine events, such that the Placement centres around human activity, while the Sequent Events take place at the divine level. The generic elements are dispersed to some extent; however, the dispersal appears to be always between human and divine events. This dispersal is an important feature, and the significance of this will be explained later; however, it will suffice to say at this point that the function of such select dispersal is to achieve a mapping between human and divine events.

A statement of this passage's context of situation can be proposed as follows:

Field: speaker attempts to persuade addressee to adopt a particular view of human affairs which is intended to change his behaviour. Relating of mythological story which explains the perceived state of human affairs.

Tenor: public audience as spectators of a text produced by Hesiod and directed to his brother Perses, with whom Hesiod has some form of dispute over an inheritance.

Mode: written channel, possibly spoken medium (as it is at least modelled on Homeric oral hexameter epic verse); relating of mythological story through narration (grounded in divine motivation) produces a statement of the condition of humans in the world in terms of habitual state of affairs.

This description of the context of situation is like that of the *paradeigma*, which reflects its similar function. However, there is a crucial difference— in the Hesiodic passage, the events of the story lead directly into the state of human affairs, rather than the past event being a model of the current situation. To investigate this further, one needs to look at the relational and clausally-oriented aspects of the semantic characteristics of the passage.

### 7.5.2 Semantic description: rhetorical structure

If we consider the rhetorical relations between generic stages, we also find a dual orientation in rhetorical relations. For example, the relationship between the Divine Motivation and the Sequent Event can be construed to be one of cause— that the plan that Zeus has in mind for humans (in the form of a speech to Prometheus) is what Zeus says and thinks, and results in him issuing instructions to the other gods to create Pandora. At the same time, however, the speaker is attempting to show to the addressee that this speech by Zeus is essential background for his subsequent actions. It will be noted that the Divine Motivation is in the form of a speech attributed to Zeus, and thus we might expect that its internal rhetorical structure to reflect the functions of a speech which threatens or promises an adverse action, and therefore does not bear a direct relation to the semiotic functions that the poet is trying to enact with his audience. However, it is also important to note that some kind metaphorical process is involved, because the representation of Zeus' thinking is expressed in the form of a speech to Prometheus.

The relation of the Human Placement to the divine plane to the Human Initiating Event is essentially internally oriented, providing to the audience the background of Epimetheus' actions in receiving Pandora from Zeus. However, it is also externally oriented, because the Placement describes a state of affairs that is concurrent with, and prior to, Epimetheus' initial action. Similarly, we find a causal, but also an enabling relationship between the Human Final Event and Human Finale; in the same way, there is a dually oriented relationship between the Finale and the Moral (evidence and result). It appears that these dually oriented relationships occur in the transition from particular past events to general states of affairs, and from general states of affairs to a 'principle of organisation'— that no-one can be exempt from Zeus' actions.

### **7.5.3 Sequence / figure / element and its realisation in the lexicogrammar**

The striking aspect of the clausally-oriented meanings in the 'divine' section of the story is that it is dominated by material dispositive events of giving and endowing, where a divine being is the main participant and a human being (Pandora) being in a Recipient role. In other places, she is given the name Pandora, and is the person whom Athena teaches needlework and weaving. This lexicogrammatical model is used to construe the endowment of moral qualities and skills to Pandora, where they are construed as participants in the clauses, and in terms of structure, are mapped onto nominal groups. Because some of these are personal abilities and qualities, and usually construed in terms of action, these are mapped onto nominalisations. The consequences of this clausal model is that any individual human is not responsible for the creation of their own qualities and actions— instead, they are thought to be created in the divine sphere, and then associated with the individual, so that that person stands in some kind of possessive relationship to them. Construed in this way, there is the potential to construe a giving away or divestment of these actions and qualities, because they are construed to be separate from the individual.

Thus the divine sphere of activity is construed in human terms, because the gods participate in the same kinds of processes that human actors would do. More specifically in this story, human actors participate in material dispositive processes of giving as do the gods here, such as the construal of Epimetheus receiving Pandora from Zeus via Hermes. This is a small instance of what might be called cohesive harmony<sup>266</sup>, where there is not only anaphoric reference, but also the same kind of lexicogrammatical configuration between clauses.

81-82

hoti [[pantes Olumpīa dômat' ekhontes]]	dôron	edôrêsan
Actor / Agent	Range	Process: material: dispositive

'...because all those who dwell on Olympus gave a gift...'

83-84

eis Epimêthēa	pempe	pater	kluton Argēiphontên	dôron	agonta
Circumstance: spatial: extent	Process: material: dispositive + effective	Actor / Agent	Goal	Range	Process: material: dispositive

'the father sent the famous slayer of Argus to Epimetheus, || bringing the gift'

<sup>266</sup> For a detailed explanation of lexical cohesion, and its relationship to the notion of a text's unity and the associated concept of cohesive harmony, see Hasan (1984), especially p.211-221.

86-87

hôs hoi	ēēipe	Promêtheus	mê pote dôron	dexasthai	par Sdênos Olumpiōu
Recipient	Process: verbal	Sayer	Range	Process: material: dispositive + middle	Agent

(he did not think about) 'how Prometheus had told him || never to accept a gift from Olympian Zeus'

Not only is there the lexical, anaphoric cohesion between these three clause complexes through *dôron* 'gift', but also a cohesion of transitivity, where this gift functions in the same way in each of the material dispositive processes of transferring, giving and accepting a gift. Once this kind of semantic cohesion is achieved in the text, it becomes much more likely that these events— since they are construed in similar ways— are perceived to belong in some way to the same kind of domain of experience, and thus there is the potential for various kinds of temporal or causal links to be made between the divine and human planes of existence. Thus the modelling of two different domains of experience in the same terms increases the tendency for one of these domains to be explained in terms of the other. No explicit drawing of a comparison is made, as in the Homeric simile; instead, the comparison is relatively covert, and is achieved through this 'co-modelling'. This allows the audience of the story to come to the conclusion that 'there is evil among humans because the gods gave to them Pandora who was in possession of these evils'. The lexicogrammar thus plays a large role in the formulation of this kind of explanation.

This view is reinforced when we compare the lexicogrammar of the Human Final Event and the Human Finale. The lexicogrammar of the evils flying out of Pandora's jar is construed in the same terms as disposing an object out of one's possession— the converse of receiving objects into one's possession. However, in the subsequent clause, Hope is construed as remaining within the jar and then reconstrued as not

going out– thereby achieving a shift from a initially material transitive to a circumstantial relational process, which is then metaphorised to a more ergative type material dispositive process– the latter being the same kind of grammar as that employed by the Finale to represent the human condition. Thus the Human Final Event bridges between specific past events and general habitual conditions by construing and then reconstruing events through the lexicogrammar.

Another feature of the construing activity of this passage is the use of participants that refer anaphorically to the previous configuration of a number of activities construed prior in time, but do not necessarily share the same functional or structural characteristics of lexical cohesion. A good example of this is *dolon aipun amékhanon* 'the dreaded, inescapable snare'<sup>267</sup>, which is a reconstrual of the result all the prior activities in fashioning Pandora. The effect of this is rather like, but not identical to, that of nominalisation– it reconstrues the result of all the logogenetically prior processes as a participant in subsequent clauses, mapped onto a nominal group. This participant functions within a ranking clause, which is a clause-length reconstrual of all the logogenetically prior processes in total, as a material creative process. This figure is part of a temporal enhancing sequence, realised congruently in the corresponding clause complexing relation. This seems to at least one way in which a transition is achieved between Sequent Events. Another effect of this is to 'repackage' the previous text for further development of the subsequent text; this is reminiscent of the repackaging function of nominalisations in scientific discourse in English<sup>268</sup>.

#### 7.5.4 Conclusion

Explanations like this in Hesiod (and to a lesser extent in Homer) semiotically construe two different domains of experience in the same terms, which provides the basis for an explanatory framework to be proposed for the issue that is the focus of

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<sup>267</sup> Hesiod Works and Days 83.

<sup>268</sup> For this textual function of nominalisations, see Halliday and Martin (1993) and Halliday (1998).



the epic as a whole. The first point of similarity is in terms of generic structure, where both human and divine domains are unfolded in terms of a initial steady state followed by sequent events. The second is in terms of the clausally-oriented semantic phenomena of the text, where there is not only lexical cohesion, but significant grammatical cohesion, with the result that both domains are experientially construed in the same framework. This facilitates temporal and (importantly) causal links to be made between the two domains, and thus allows a process of explanation of one of these domains which is at issue in the broader context of the epic– the human plane of existence.

In places, the rhetorical structure of this text is dually oriented, particularly when progressing from narrative, to general states of affairs, and then to the conclusion drawn by the speaker. This is similar to what occurs in the reflection in Homer, and occurs for the same reasons– the speaker is trying to get the addressee to think about an issue in a certain way and act accordingly, by reconstruing experience. Thus this dual orientation occurs at major transitions in the story in order to move the speaker from past, relatively 'concrete' events to a general principle or moral which is expected to be adopted by the addressee.

The phenomena of metaphoric reconstrual and anaphora are important to the functions of the story of Pandora. First, it allows subsequent development of a text; in the Pandora story, it allows the process of the 'construction' of Pandora by the gods to proceed to the construal of an object (Pandora) which is then transferred to successive places and ownerships and into the human plane. Secondly, it also allows a progression from specific past events to general, habitual states of affairs, from which a conclusion can be drawn. Thus both anaphora and reconstrual achieve transitions between similar and different generic stages, and thus underpin the drift in the Pandora story from narrative to explanation to principle. It is also important to note that anaphora and reconstrual are interdependent here, where the anaphora obtains between two semantic and lexicogrammatical entities of different category to each other.

## 7.6 Conclusion: persuading an audience to 'co-model'

There seems to be considerable evidence that by the time of the development of the epic poetic tradition in Greek, there were several kinds of resources that were used for the conscious reflection on experience. An examination of the simile and the *paradeigma*, and the combination of their respective functions in more 'reflective' kinds of comparison in the *Iliad* of Homer demonstrates this well. What these particular kinds of texts within the epic genre reveal is that there are several concurrent resources in the language, the combination of which tend towards the conscious construal of states of affairs whose construal is in dispute, is controversial, or is unknown in some way.

Essentially, there are resources for an extended experiential comparison between a specific narrative event and a relatively abstract, habitual state of affairs, the construal of which predisposes to a reconstrual of the narrative event in terms of the same kinds of semantic and lexicogrammatical configuration. Concurrently, there are resources for persuading a person to a certain way of thinking and action in the context of an unresolved interpersonal situation, by comparing the specific current situation to a specific past situation and its outcome, the latter of which is intended to inform the advice given to resolve the current situation. In short, the simile compares in order to reconstrue, while the *paradeigma* compares in order to produce action by the addressee. At the same time, the semiotic activity of comparison can be carried out through the functions of the lexicogrammatical elements of the clause—specifically, through the relation of the process to a given participant in the clause; this encompasses what is traditionally considered to be lexical metaphor.

There is evidence that these three semiotic activities can be deployed simultaneously, with very significant consequences for the overall functions of a given text that does

deploy them simultaneously, for how these functions are unfolded, and for the contexts of situation in which they potentially can be used. What happens in such cases is that the speaker intends to make an addressee think in a certain way about a given generalised state of affairs whose construal is up for negotiation, or has not been encoded to a significant extent within the semantic and lexicogrammatical systems of the language. The state of affairs in question is then semiotically modelled on another generalised state of affairs whose construal is relatively 'settled'. To do so, the act of comparison is grammaticalised, and thus separated from the process of exposition of the model. This grammaticalisation of the comparison potentially allows the exposition of the model to be developed and expanded relatively independently of the issue at hand, but at the same time can be tied back to the issue under negotiation at whatever point the speaker wishes to do so. This in turn allows certain possibilities to be explored, by either speaker or addressee, within the model so developed, and thus articulate the issue at hand to whatever level of detailed is required. This contrasts with the relatively 'closed' nature of comparison within the simile. Thus the effect of combining these three sets of functions is to provide a model for a given generalised state of affairs which is in terms of previously encoded semantic and lexicogrammatical processes, which can be extended to whatever extent, and prompts both speaker and addressee to react in some way, either with further semiotic, or other kinds of, activity.

It should be emphasised that it is the choice of the speaker as to what level of detail is articulated in the model. As explained before, certain 'gaps' may be left within this model, and they can be the focus of later semiotic activity to speculate on these 'gaps'. Such 'gaps' often correspond to specific semantic or lexicogrammatical roles at the clause level that are left 'open' in the proposed model of experience. Specifically in the example of the reflection discussed above, the role of Agent is left open in both of the events compared to each other. This predisposes people producing and receiving such texts to think that there is one, relatively abstract, kind of entity that acts as Agent in both compared events, and the nature of the text is that it prompts the interactants to speculate on the nature of such abstract entities. Such speculation,

mediated semiotically, may lead to the development of a 'theory'— that is, a text that attempts to provide an account of such 'gaps'.

The one feature of the simile, the *paradeigma* and the combination of their functions in a reflection is that they compare two domains of experience that are construed to be relatively separate from each other. However, another concurrent set of semiotic resources is that associated with the explanation of elements of human experience, such as is found in Homer and Hesiod. In the story of Pandora related by Hesiod, the two domains of divine and human experience are causally related. What underpins this link is a quite distinct lexicogrammatical cohesion between stages of the story, between the divine and the human. Again, the clausal meanings and lexicogrammar, and the anaphora and reconstrual associated with it, are important for developing the explanation from the divine to the human, and from the particular to the general. There is no overt comparison between distinct phenomena; instead, the lexicogrammatical cohesion provides a covert modelling of both phenomena in a consistent fashion to produce a causative sequence. The overall effect is that what are considered to be distinct phenomena lead 'naturally' into each other.

Thus we have several semiotic resources that have been developed by the time of the epic poem in Greek, all of which are oriented to reflecting consciously on the experienced world, but do so in different ways. There is evidence that some of these resources have been combined with each other, resulting in new kinds of semiotic activity. However, there is scope for further combination, and further evolution of new kinds of textual practice. In particular, what remains uncombined in epic poetry in Greek is the practice that tends towards the building of a theory, and the practice of establishing causative links between two domains of experience with a view to explaining the nature of one of these. Such combination would result in a theory that explains a given phenomenon whose nature is being discussed, and provides an explanation in terms of a strongly cohesive link between abstract theory and concrete phenomenon. Once this is achieved, we arrive at the point where there evolves a new

kind of conscious reflection on experience– the development of formal explanatory theories.

## **CHAPTER 8**

### **Herodotus in the context of theorisation and persuasion**

#### **8.1 Herodotus' inheritance and context**

The previous discussion of passages from Homer's *Iliad* and Hesiod's *Works And Days* demonstrates that the language of Homeric Greek has developed significant semantic and lexicogrammatical resources to consciously reflect on experience. These resources evolved from a merging and conjoint deployment of pre-existing linguistic resources for the semiotic activities of comparing states of affairs to each other and persuading an addressee to adopt a particular course of action in an unresolved situation. As these activities are merged, there co-evolves new kinds of register and genre— that is, a new genre of what might be called 'conscious reflection' develops, and this kind of cultural activity is used in contexts of situation where a speaker is persuading an addressee to construe a particular part of the experienced world in linguistic systems in a certain way, where previous construals of that phenomenon are thought not to be 'permanently' established in the cultural practice of the community.

The significance of this should not be underestimated. It is often assumed that because the Homeric epic is a relatively old Greek text, it does not have much in the way of linguistic or other semiotic resources to fulfil functions that are found in later prose historical, scientific, medical and oratorical texts which quite obviously reflect consciously on the experienced world. Even though the Homeric epic is (quite deservedly) regarded as having a great degree of 'literary sophistication', it is not regarded as explicitly and consciously reflective on the experienced world to any significant degree. A 'theory of the world' is not foregrounded as a primary aim of the epic. Instead, we find that the Homeric texts have developed significant resources to

fulfil those functions associated with patterns of talking, writing and thinking in a way that might be thought of as 'philosophical'. As a result, it is likely that later Greek texts build on these linguistic resources developed in Homer, rather than introduce resources completely 'unknown' or novel to oral epic poetry. Indeed, one can say that this 'philosophical' function of Homer is an extension of its overall literary semiosis.

However, we are not in a position to call any of the conscious reflection in Homer 'scientific', in the way that Thucydides' account of the plague may be considered to be so. The challenge for Part 2 of this thesis is to investigate how this 'scientism' came about, by following the development of linguistic resources to enable its emergence. Thus we may expect that later writers leading up to Thucydides' work had developed further resources within the activity of conscious reflection that lead to a kind of thinking that may be called 'scientific'. In this discussion, the history of Herodotus is shown to embody particular linguistic developments that build on the resources 'inherited' from Homeric and epic Greek. In particular, Herodotus engages in the activity of the *historiê*, which may be glossed in English as 'enquiry'. This simple term, however, can denote a complex configuration of linguistic processes, where a theoretical position emerges from the development of an 'extended model' of the observed phenomenon which is the subject of investigation, or from an evaluation of more than one source of information. This feature of the *historiê* also comprises concurrent persuasive and comparing semiotic activities as found in Homer, but develops and extends these resources at different linguistic strata.

### 8.1.1     **Registrational and generic types predating Herodotus**

#### 8.1.1.1     *Dialects and literary genres*

It is generally assumed that oral epic poetry was the 'original' kind of literary activity in ancient Greek, co-existing with relatively 'non-literary' linguistic activity associated with everyday social and community life. However, particularly with the rise of Greek city-states, trading routes within the Aegean and Mediterranean world and with

the Near East, and the associated development of administrative and bureaucratic institutions, the kinds of literary texts, and other kinds of discourse in the public domain, began to proliferate in the Greek world as a whole. Moreover, many of these kinds of texts came to be realised through different geographical dialects of Greek which had diverged significantly from each other by the time of the development of post-Homeric literature, if not before<sup>269</sup>. The original basis for this association between dialect, genre and register was possibly because of the geographic origin of significant figures and communities who were considered 'instrumental' in the development of those text types. However, the dialects in which those people composed became associated with the text type itself. For instance, lyric poetry was written in the Doric dialect because its initial exponents hailed from Sparta. Later on, this association between the Doric dialect and lyric poetry became conventionalised. So in the fifth century BCE, Pindar, born and educated in Boeotia (and therefore most probably a native speaker of Boeotian Greek), wrote his odes predominantly in Doric dialect which is quite distinct from Pindar's 'home' dialect. Similarly, the lyric verse found in the plays of the Athenian tragedians also contained a significant proportion of Doric dialectal elements.

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<sup>269</sup> The general view of the degree of mutual intelligibility of Greek dialects, as expressed by Allen (1974) p.xiv, is that although there was a large degree of mutual intelligibility, it was quite likely that there would be some difficulties encountered by the native speakers of one dialect in interpreting another, particularly with respect to phonology and structural morphology. In addition, it is quite likely that such dialectal variation was present by the time of the composition of the Homeric epic; evidence for this is found in the significant admixture of word forms of different dialects in Homeric language, a predominantly Ionic dialect with significant Aeolic and Arcadian elements. See Homer and Griffin (1995) p.28-32 and Homer and Pulleyn (2000) p.51-53.



<b>Doric</b>	<b>Aeolic / Lesbian</b>
Lyric and choral poetry	Lesbian lyric poetry (Alcaeus, Sappho)
Choral elements in Athenian tragedy	Epic poetic elements
<b>'Ionicised' Attic → <i>koinê</i> Greek</b>	<b>Ionic</b>
Athenian tragedy and comedy	Epic hexameter poetry (Homer, Hesiod)
Athenian prose (history, oratory)	Iambic poetry
Athenian moral philosophy (eg. Plato)	Ionian historiography (eg. Herodotus)
Later Hellenistic prose	Presocratic philosophy
	Hippocratic medical prose

**Figure 8-1 Greek dialects and literary genre and register (see Horrocks 1997 p.17-27)**

### 8.1.1.2 *Literary genres, performance and the spoken variety of Greek*

The various kinds of literary activity that developed in the archaic and classical period of Greek also show a reasonably specific association, at least initially, between genre and its performative context. Lyric poetry was often performed to musical accompaniment and fulfilled a function at public religious ceremonies, and so was associated with particular specifications of the context of situation in which it was performed; indeed, the presence of lyric poetry in Athenian tragedy is probably attributable at least in part to the function of those plays in the Athenian celebration of the festival of the Dionysia. Similarly, iambic poetry (a genre essentially defined by its metrical pattern) became associated with the description of everyday life,

individual experience and conversational interaction with others— perhaps because, according to Aristotle, the iambic metre was thought to resemble the rhythm of ordinary speech:

Aristotle *Poetics* 4.18-19 to men gar proton tetrametrôi ekhrônto dĩa to [[saturikên kai orkhêstikôteran einai tēn poiēsēsin]], || lexeôs de genomenês || autê hê phusis to oikēion metron heure, || malista gar lektikon tōn metrōn to iambeion estin; || sêmeion de toutou, || pleista gar iambeia legomen en tēi dialektōi tēi pros allêlous, || hexametra de oligakis || kai ekbainontes tēs lektikēs harmonias. |||

At first they (the tragedians) used the tetrameter because [[it made the poetry suitable for the Satyric plays and was better for dancing]], || but when dialogue came into being, || the developing nature of the play found the appropriate metre, || for the iambic metre is the most conversational of the metres; || [^there is] evidence for this, || for in conversation with each other we speak mostly in iambs, || but [^speak] in hexameter on few occasions, || when we step outside of the usual rhythm of conversation. |||

Iambic metre therefore was not only associated with a particular type of Field, but also Tenor. This explains how the iambic poet Archilochus used this genre to express his own feelings in an earthy, satirical way towards others he did not like. It is also the main reason why iambic poetic forms were employed to represent character dialogue in Athenian tragedy and comedy.

### 8.1.1.3 *Ionian literary genres: describing things as they are, as they were, and as they might be*

More relevantly to Herodotus, those text types associated with speculative philosophy and other kinds of reflective enquiry (broadly speaking, the texts of the Presocratic philosophers) originated in the sixth century BCE in the Ionian cities on the eastern edge of the Mediterranean, particularly Miletus, and such texts were produced at the time that Herodotus wrote and was alive. Indeed, it was in Ionia, and in particular

Chios, where Homer is thought to have lived and to be one of the places where the Homeric epics were compiled two centuries earlier<sup>270</sup>. The Ionian dialect– in which Herodotus writes– became associated with these speculative genres and registers, and became the Greek dialect associated with intellectual inquiry. More specifically, these texts dealt in roughly agnate Field, because they all put forward propositions that speculated on the nature of the world and the universe. In addition, Ionia was a centre for other kinds of prose literary and artistic activity, and this included the work of various 'logographers', which are considered to be 'forerunners' of history writing. These dealt with describing genealogies, mythological topics, and local history and chronology. Herodotus is most directly the 'intellectual descendant' of these logographers, but also operating in the broader environment of speculative philosophical enquiry.

At the same time, the medical schools associated with the temples to Asclepius, the god of healing, developed in the islands of Cos and Cnidus, not too far from Herodotus' native city of Halicarnassus. These schools, which were originally hereditary priesthoods, soon developed into hereditary, and then eventually non-hereditary, associations of medical professionals whose role became primarily to diagnose and treat the sick rather than primarily tend to Asclepius in a strictly religious role<sup>271</sup>. From this, the Hippocratic school of medicine developed, named after its most prominent practitioner, Hippocrates, and it is now believed that several doctors trained in this school (or at least in the methods of this school) are responsible for the works attributed to this Hippocrates. This collection of works is referred to in this thesis as the Hippocratic corpus. These works were probably compiled from about 430 BCE onwards– probably slightly later than when Herodotus started to collect and write material for his history– but it can be safely assumed that these texts, and the ideas contained therein, were being developed in the community for some time before their final compilation at this date. The works that comprise this corpus, though of conflicting styles and ideas, were all written in exclusively Ionian dialect.

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<sup>270</sup> The time of the production of the Homeric epics is thought to be in the eighth century BCE, according to Bury and Meiggs (1979) p.60-61.

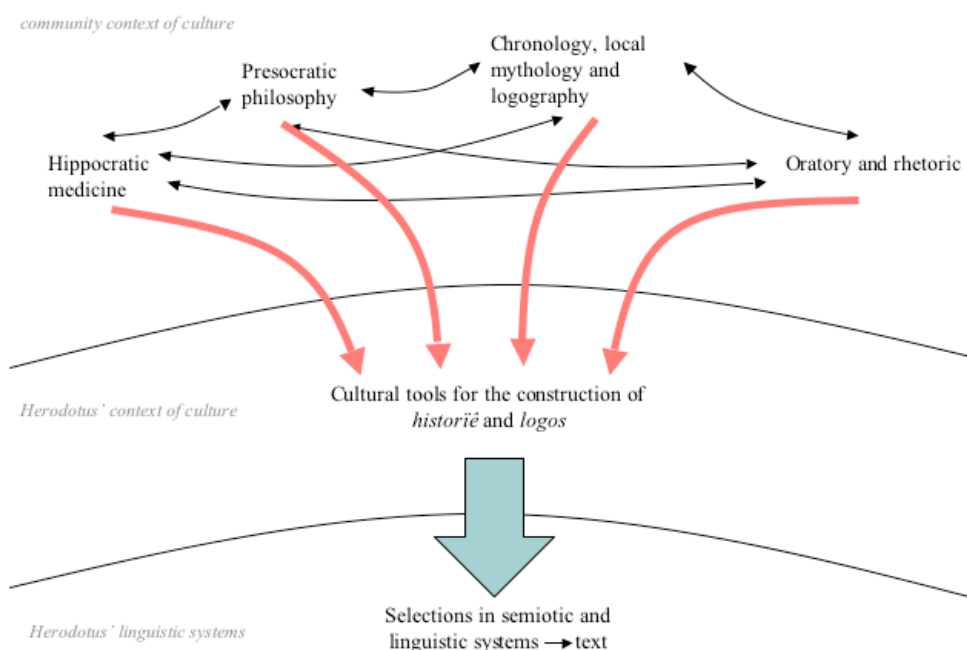
<sup>271</sup> For a detailed overview of the emergence of the Hippocratic schools of medicine in Cos and Cnidus, see Jouanna (1999).

*8.1.1.4 Combined performances: the potential for 'generic recombination'*

It can therefore be safely said that there is a considerable amount of literary activity in the public domain that predates, and is contemporary with, Herodotus' life and work. Not only is there a relatively large amount of literary activity, but also an increasing variety and specialisation of it. As these semiotic activities spread to the rest of Greece from Ionia, due in large part to the mobility of its practitioners<sup>272</sup>, the linguistic processes that underlay their functions became progressively more established. We can assume that an individual such as Herodotus was exposed to this in a thoroughgoing way, especially as he is a producer of literary activity himself.

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<sup>272</sup> This mobility was sometimes accelerated by geopolitical events— for instance, many of the speculative philosophers, such as Pythagoras and Xenophanes, moved westward because of the rule of local despots, or the occupation by the Persians of many of the Ionian city-states. Those practising the decorative arts— also responsible for semiotic activity in the public domain— moved from Ionia as well; evidence for this can be found in the coinage of the period discovered in the western Greek colonies of Leontini and Syracuse, in what is now present-day Sicily. See Bury and Meiggs (1979) p.156.



**Figure 8-2 Herodotus and his immediate context of culture**

Thus he was in an environment which afforded the possibility of combining the linguistic resources of relatively discrete areas of literary activity. This is not to say that there were clear, sharp boundaries between different genres and registers– the interrelation between medical writing and rhetorical practice, discussed in the next section of this discussion, shows that this was quite clearly not the case. Furthermore, we would expect that different text types do evolve from common, 'parent' text types over time, and as such would share common linguistic features– this would frustrate many attempts to draw registral or generic boundaries. However, the point is this. When text types evolve and differentiate from each other, two processes are likely to be operative. Firstly, differentiation occurs where relatively discrete sections of the speech community engage in the creation of their own texts to create and fulfil their specialised social and semiotic functions. Secondly, because these evolved types sit side by side, as it were, in the community, and because any individual person in a social group has multiplex social relations– particularly in the relatively urbanised

city-state— there is the potential for the linguistic and semiotic resources associated with relatively discrete text types to be recombined with each other.

We would expect Herodotus not to be immune from this potential, because he would be aware of, or even engaging in, the variety of registral and generic types of text available in the public domain. We would expect him to know that some kinds of texts evolved for performance in the public domain, whether this be for religious, aesthetic, informative, or oratorical functions. He would also be aware that texts also evolved for consciously reflecting on experience, and for presenting a 'new view on the world', and that these texts could function as information that is shared amongst people. These 'public' kinds of semiosis would sit alongside Herodotus' own use of Ionic Greek to enable the functions that he had to perform in his everyday life in the community in which he lived. Therefore, it is not only the 'amount' of literary or reflective semiosis, but also the large variety of semiotic kinds in which Herodotus locates his own semiotic activity.

### **8.1.2 The combined performance of the *historiê*: Herodotus and the enquiry into marvels hidden from sight**

#### *8.1.2.1 The singular purpose of Herodotus*

In a naïve characterisation, we would consider Herodotus primarily as an historian. However, his writing encompasses, in modern eyes, a great range of subject matter, so that one could add the terms 'storyteller', 'geographer', 'ethnographer' and 'natural historian' to describe the totality of Field in his work. However, this multiplicity is in part a product of the text type distinctions that the modern reader brings to a reading of Herodotus, and it is quite probable that Herodotus, and his contemporary audience, did not make such (distinct) demarcations. In fact, it is possible to see a single, quite specific motivation for most, if not all, of what he writes, and this is revealed in the use of three lexical items in his history: *thôma* (Ionian for the Attic *thauma*) 'wonder,

marvel', *historiê* (Ionian for the Attic *historia*) 'inquiry' and *aphanês* 'not (readily) perceptible, hidden from sight'.

### 8.1.2.2 Describing and explaining 'wonders'

The single overriding element of Field is Herodotus' determination to explain *thômata*. In fact, he says so explicitly:

Herodotus 1.1 Hêrodotou Halikarnêssêos historiês apodexis hêde, || hôs mête ta genomena ex anthrôpôn tôi chronôi exitêla genêtai, || mête erga megala te kai **thômasta**, <<ta men Hellêsi || ta de barbaroisi apodekhthenta>>, aklêa genêtai, || ta te alla kai di' hên aitiên epolemêsan allêloisi. |||

This is the production of the inquiry of Herodotus of Halicarnassus, || so that things that men have done may not be forgotten, || and that great and **wondrous** deeds— <<some displayed by the Greeks, || others by non-Greeks— >> may not be without glory, || including among other things on account of what cause they waged war on each other. |||

The essential sense of *thôma* denotes some phenomenon in the experienced world that, for whatever reason, strikes the consciousness of the senser in a marked way. It can do so for a combination of three reasons: the speaker specifically directs the attention of the addressee to the phenomenon, the phenomenon is perceived to be outside of the usual experience of both speaker and / or addressee, and the phenomenon is thought to induce a sense of wonder, or causes one who experiences it to reflect on it. Evidence for this can be found in the related verbs *thēāomai* 'behold' and *thômasdô* (Ionic for Attic *thaumasdô*) 'wonder, marvel at'. The first of these verbs not only denotes the sense of holding a sense phenomenon within one's perceptual awareness with a sense of wonder, but is also used in the context of

spectators looking at a play on stage<sup>273</sup>. Thus the verb denotes the notion of consciously directed perceptual attention. The second of these verbs denotes a mental cognitive or emotive process of feeling amazement or wonder. Thus the sense of *thôma* is that of something perceived to be so striking as to provoke or require some form of mental reflection or contemplation. When Herodotus is explaining *thômata* in his history, he is directing his audience's attention to phenomena *of any kind* which provokes a strong mental reaction *of whatever kind*. This reaction is then used as the starting point for reflection upon the matter in question.

### 8.1.2.3 The *historiê* as an enquiry into *thômata*

In the case of Herodotus, the reaction to such *thômata* is to conduct an enquiry into them. Such an enquiry is given the term *historiê* (Ionic for Attic *historia*). Such 'enquiries' are semiotic processes— they involve the gathering and evaluation of information from various sources, and its subsequent coordination and synthesis into text<sup>274</sup>. It does not come as a surprise that Herodotus' reaction to *thômata* is a semiotic one. It is well noted that the related verb *thômasdo* is, in lexicogrammatical terms, a mental process capable of projection as an alternative to being a mental process with a sensed Phenomenon<sup>275</sup>. In particular, the process commonly projects interrogatives which typically have the speech function of a proposal<sup>276</sup>. This is quite significant, as projection can be thought of as a semantic phenomenon where a sensed Phenomenon is overtly symbolised, or brought into overt symbolic existence<sup>277</sup>. It might be said that the lexicogrammar of mental processes in Greek reflects and

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<sup>273</sup> See Liddell, Scott et al. (1968), p.786.

<sup>274</sup> This is as the term appears to be used in Herodotus, however, the related term *historion* is used differently in one work in the Hippocratic corpus, where the sense appears to denote a *modus tollens* type argument in support of a particular theoretical position. See Thomas (2000) p.187-188.

<sup>275</sup> See Liddell, Scott et al. (1968) p.785.

<sup>276</sup> See Smyth and Messing (1974) p.505, 583 which also raises the possibility that some of the projected interrogatives (especially those with the conjunction *ei* 'if') are a kind of modalised lexicogrammatical metaphor for projected propositions, typically realised as an 'accusative and participle construction' in the projected clause.

<sup>277</sup> For this interpretation of projection at the semantic stratum, see Halliday and Matthiessen (1999) p.129-131.



influences larger-scale textual organisation. As a result, there is a recurrent pattern in Herodotus of highlighting a given *thôma*, which is brought into overt semiotic existence by the unfolding of the *historiê*.

The need for *historiê* is especially required for those phenomena which are thought to be 'hidden' or not amenable to ordinary sense perception; linguistic resources are required to bring them into symbolic existence. For such phenomena, Herodotus uses the epithet *aphanês* to describe them, as he does with the phenomenon of the Nile flooding in summer:

Herodotus 2.24 ei de dei || mempsamenon gnômas [[tas prokeimenas]] || peri tôn aphanêôn gnômên apodexasthai, || phrasô || di' ho ti moi dokëei || plêthüesthai ho Neilos tou therëos. |||

If it is necessary || for one to find fault with [[the preceding opinions]] || and adopt an opinion about unseen things, || I shall say || why I think || the Nile is in flood during the summer. |||

It has been commented that this passage reflects Herodotus' possible disapproval of speculating on what one cannot perceive with the senses, as other theory-spinners preceding him have done<sup>278</sup>. However, this does not stop Herodotus from attempting to provide a detailed explanation of the same, so the use of the term may have less 'negative appraisal value' than might first appear. Instead, this term suggests that there are 'invisible' aspects to any phenomenon that is the subject of legitimate investigation, but at the same time these can be 'revealed', or given symbolic existence, as can any other phenomenon that is directly perceived with the senses. The function of the *historiê* is to bring whatever is *aphanê* into such symbolic existence.

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<sup>278</sup> See Thomas (2000), esp. p.206, but also more generally p.200-212 which discusses the use of this term in Herodotus and relates its use to that of the writers of the Hippocratic corpus.

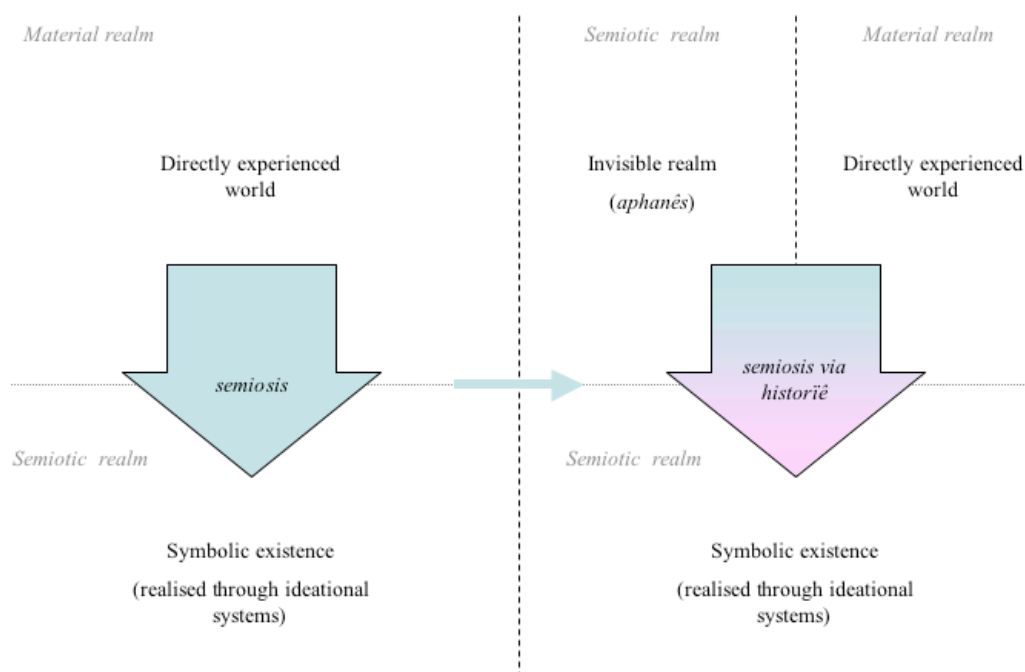


Figure 8-3 The *historîê* and bringing the realm of the invisible into symbolic existence

## 8.2 Herodotus, the Presocratics and the Hippocratics

In the particular passage discussed above, and in some preceding sections in Herodotus' second book<sup>279</sup>, we have a distinction between what apparent to the senses, specifically sight, (*phaneros*) and what is not (*aphanês*). It has been noted that this is a distinction that is also used by the texts of the Hippocratic corpus, and thus provides substantial evidence that the intellectual approach that Herodotus uses draws on that used by the Hippocratic doctors<sup>280</sup>. In particular, an emphasis seems to

<sup>279</sup> For example, see Herodotus 2.23: *[[ho de peri tou Ôkēanou lexas]] es aphanes ton muthon aneneikas || oukh ekhei elengkou* 'the person [[who talks about the Ocean]] offers his argument in terms of the invisible, || and does not allow for proof'.

<sup>280</sup> Again, see Thomas (2000) p.200-212 for the detailed argument of this position.

be laid on what is apparent to the senses as providing concrete evidence for a particular proposition, rather than reasoning directly on what is not. This approach is somewhat at odds with Presocratic philosophy, which dismissed 'the visible' and emphasised the 'invisible' as being the organising principle of aspects of the world and universe.

### 8.2.1 Inferring the invisible by analogy

However, this is not to say that the Hippocratic doctors, or Herodotus himself, do not take an interest in what is *aphanês*. Indeed Herodotus shows such an interest when he proposes his theory of why the Nile floods in summer. Similarly, the Hippocratic doctors are presented (or present themselves) with the issue of the nature of the 'invisible' internal workings of the body. However, what many of the Hippocratic doctors do is describe these internal workings in terms of an analogy from what is externally visible. This process of inferring by analogy is quite entrenched in Greek modes of reflective inquiry, and is also present in a substantial number of cultural practices, such as religious practice<sup>281</sup>. This is quite distinct from the notion of internal bodily processes *causing* an externally visible clinical syndrome. Instead, what is meant is that domains of experience construed to be separate from each other share a common principle of organisation. An example of this can be found in the Hippocratic treatise 'On Joints'<sup>282</sup>:

Hippocratic Corpus *On Joints* 57

hosoi d' an es toupisthen hê kephalê tou mêrou ekpesêi– || oligoisi de ekpiptei– ||  
houtoi <<ektanüein>> ou dunantai to skelos, || oute kata to arthron ||[to ekpeson]] oute

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<sup>281</sup> This notion of analogy is the central thesis of Lloyd (1966). Also see the discussion of the invisible by analogy in Thomas (2000) p.200-211.

<sup>282</sup> Another example is cited by Thomas (2000) p.203 from the treatise *On the sacred disease*, where the effect of prevailing winds on the brain is inferred by analogy from the effect of winds on wine stored underground.

ti karta kata tên ignüên; ||| all' hêkista tôn ekpalêsîôn houtoi mallon ektanüousi kai to kata ton boubôna kai to kata tên ignüên arthron. ||| prosunienai men oun || kai tode khrê– || eukhrêston gar kai pollou axïon esti || kai tous pleistous lêthei– || hoti oud' [[hugiainontes]] dunantai || kata tên ignüên ektanüein to arthron, || ên mê sunektanusôsi kai to kata ton boubôna arthron, || plên ên mê panu anô âeirôsi ton poda, || houtô d' an dunainto. ||| ou toinun oude sungkamptein || dunantai to kata tên ignüên arthron homoiôs, || alla polu khalepôteron, || ên mê sungkampôsî kai to kata ton boubôna arthron. ||| polla de kai alla kata to sôma toïautas adelphixias ekhei, kai kata neurôn suntasias kai kata müôn skhêmata, || kai pleista te kai pleistou axia [[ginôskesthai || ê hôs tis oiëtai]], kai kata tên tou enterou phusin kai tên tês sumpasês koiliês, kai kata tas tôn husterôn planas and suntasias; ||| alla peri men toutôn heterôthi logos estai || êdelphismenos [[toisi nun legomenoisi]]. |||

In those people where the head of the thigh-bone is dislocated backwards– || it dislocates in few people– || these people cannot || extend the leg, neither at the dislocated joint nor even at the hamstrings; ||| but these people in fact extend the leg least of any kind of displacement, both at the groin and at the hamstrings. ||| Therefore one ought || to keep the following in mind– || for it is a useful and important point, || about which most people do not know– || that not even [[those in health]] can || extend the joint at the hamstrings, || unless they extend the joint at the groin as well with it, || and they lift their foot high off the ground– || then they might be able to do it; ||| and they also cannot || flex the joint at the hamstrings as easily, || but [^flex] with much greater difficulty, || unless they flex the joint at the groin as well. ||| Many other places throughout the body have such associations– such as with the contraction of cords and the posture of muscles– || and they are very many, and [more important || to recognise || than one would think] || ], both in regard to the nature of the intestine and the entire body cavity, and the irregular movements and contractions of the uterus; ||| but there will be discussion of these elsewhere, || in association with [[the present remarks]]. |||

The point that the author is trying to make is that one finds similar constellations of reciprocal physiological and mechanical function not only in disorders of the joints, but also in other parts and systems of the body. This view is ultimately based on his clinical observations of those with posterior dislocation of the thighbone. As a result, the author uses his findings in his examination of joint disorders as an analogy for disordered function in other kinds of body systems. As we have seen from the linguistic examination of Homeric epic earlier in this thesis, the linguistic resources

for this use of analogy came about well before the fifth century BCE, and this position is well supported by the work of Lloyd (1966).

### **8.2.2 Herodotus' use of analogy**

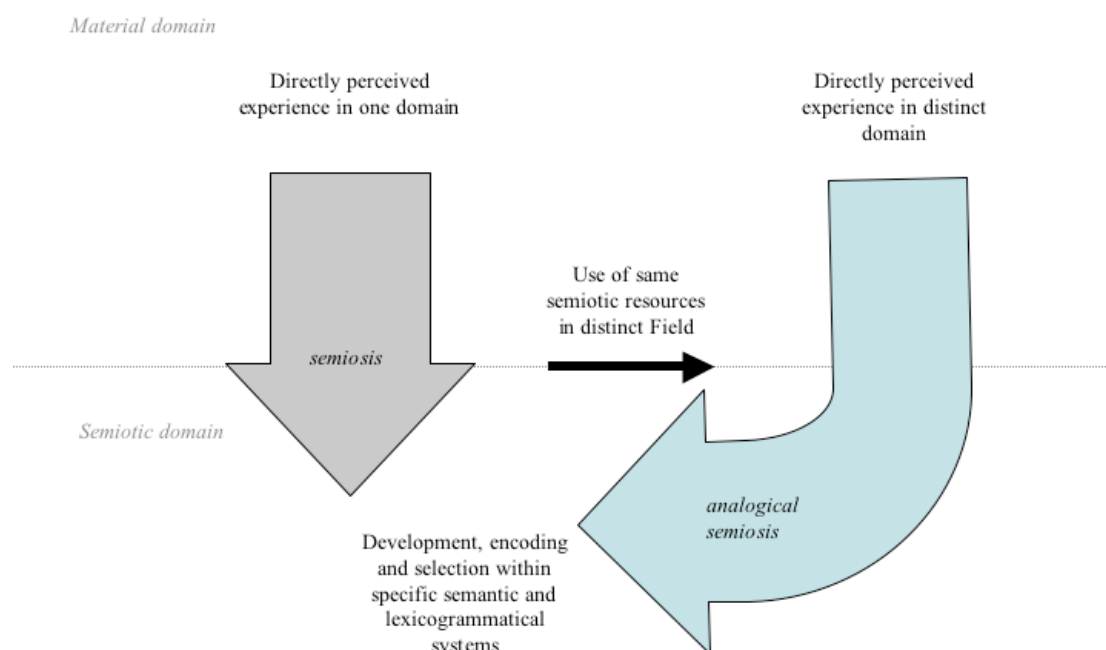
The use of analogy is prevalent in Herodotus, and this is well known, although it is not usually described in terms of organisation by analogy. One, relatively small-scale, example of this is his comparison of the Nile to the Danube:

Herodotus 2.26

ei tauta houtôs eikhe, || ho hêlios an apelaunomenos ek mesou tou ouranou hupo tou kheimônos kai tou boreô || êie an ta anô tês Eurôpês || kata per nun tês Libûês erkhetai, || dīexīonta d' an min dīa pasês Eurôpês || elpomai || poīēēin an ton Istron ||[ta per nun ergasdetai ton Neilon]||. |||

If these things are so, || the sun would be driven out of the middle of the sky by storms and the northerly wind, || and then would go through the upper parts of Europe, || just as the Nile now goes through the upper parts of Libya, || and as it goes through all of Europe, || I expect || that the Danube would do ||[what the Nile now does]||. |||

Here, Herodotus explains the seasonal fluctuation of the level of the Nile in terms of the movement and position of the sun, and its attendant effects on the distribution of water on the earth. He then analogises this to the effect that the course of the sun has on the Danube, and thus proposes that the behaviour of the Danube will be similar as a result.



**Figure 8-4** Analogical modelling through semiotic systems

Herodotus did not write his history in isolation from the intellectual and literary activity that proceeded apace in fifth century BCE Ionia. In particular, Herodotus' approach has affinities with that of the authors of the Hippocratic texts, by seeing directly observable events as providing the basis of explanation of those events that are not directly observable. This mode of explanation is framed in terms of analogy, where common principles of organisation are thought to be operative. So there is considerable evidence that Herodotus (as well as the Hippocratic doctors) extend the already established tendency in Greek texts to analogise. This analogising tendency is most likely the descendant of the use of the simile and the *paradeigma* in epic poetry. It is up to a linguistic analysis to specify more precisely the linguistic resources which enable this, and to determine which linguistic features at which linguistic strata do so.

### **8.2.3 Seeing the invisible**

The above discussion would seem to suggest that Herodotus followed the intellectual method of the Hippocratic school at the expense of Presocratic speculative philosophy. However, it is important to emphasise that both Herodotus and the Hippocratic school do in one major respect agree with the Presocratic intellectual method, and that is the focus on the invisible as being an important determinant of the nature of the experienced world, or at least worthy of contemplation.

One major means by which the invisible is 'seen' is, as has been explained before, by the use of analogy, both in the Hippocratic corpus in Herodotus' theory building<sup>283</sup>. However, the other means by which this is achieved is through the use of particular selections in the lexicogrammar of Greek that are associated with certain text types, and using them to construe the 'invisible' domain. The earliest precursor of this appears to be the construal of the divine sphere that first appeared in epic poetry.

### **8.2.4 The social and psychological model of the invisible in epic poetry**

Epic poetry (both in Homer and Hesiod) also contemplates what is not visible or apparent to humans— it is just that this 'invisible' world is the divine sphere. This divine sphere is closely modelled on human activity, shown by the quite obvious anthropomorphism of the gods and their actions, to the point where the gods' social structure and their places of habitation are precisely modelled, sometimes in great detail, on actual human social life<sup>284</sup>. Again, even in this relatively early stage of Greek literature, there was a tendency to analogise. It appears to be the case that if individual humans can affect the actions of other humans and their environment, then

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<sup>283</sup> Again, see Thomas (2000) p.200-211.

<sup>284</sup> See Lloyd (1966) p.194-198 which explores in some detail how the operations of the Greek gods are very similar to Greek social organisation, interaction and cultural practice.

the agents that affect all humans and have overarching effects on their environment (such as causing lightning and earthquakes) can be construed to act in ways analogous to humans. Thus the examination of the invisible, and to describe it analogically, has been well established in Greek by the time of the Presocratics and Herodotus, even if this is not signalled explicitly by the epic poets.

Furthermore, as Hesiod's rendition of the story of Pandora shows, this divine realm, relatively 'opaque' to humans, has direct and ongoing causative effects on the experienced world. This may be a direct consequence of the analogical modelling of the invisible— if both the divine and the human spheres are construed in the same terms, then it becomes relatively easy to establish causative and temporal relationships between the two. Thus, epic poetry has already established the notion of the invisible realm being a determinant of the nature of the visible, directly experienced world.

### **8.2.5 The shift towards explanation in 'material' terms and towards argument in Presocratic literature**

So what new practices do the Presocratic philosophers bring to the examination of the invisible? The first relevant feature of Presocratic texts is that they conduct their discourse in terms of an argument rather than narrative. Instead of a temporal sequence of events, there is a given number of hypotheses or propositions which may or may not be grounded in supporting arguments. Thus the interactional relationship between speaker and addressee is quite different— there appears to be rather less emphasis by the speaker on a specific state of affairs at a given time. Instead, a state of affairs that is thought to generally hold, independent of specific circumstances, is presented by the speaker within a persuasive framework<sup>285</sup>. This particular practice,

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<sup>285</sup> This particular notion of a condition which is thought to generally hold is eventually lexicalised by the Presocratic philosophers, particularly Anaximander and the Milesian school, as *to apeiron* 'the unbounded', which is thought of as denoting a realm which is not temporally or spatially fixed, but acts as a means of maintaining the order of real-world phenomena which have determinate temporal and spatial



as shown from the discussion of similes in Homer earlier in this thesis, has been quite established by the time that oral epic poetry became 'fixed' in writing. This is carried over into the Presocratic texts as we have them.

Secondly, conscious agents are excluded from the contemplation, which is in a way related to the move away from narrative. This is not to say that the linguistic resources used to construe human behaviour are completely excluded. Indeed, relatively abstract notions of 'love', 'strife' and 'justice' are used as construing organising principles at work in the universe that underlies the experienced world<sup>286</sup>. Instead, the events in such contemplation do not involve agents that are capable of planning or intention. Thus any theory of causation presented in Presocratic texts is not psychologically based, or grounded directly in human social interaction (as the divine sphere is), but instead is based in material events. In systemic terms, social and psychological behaviour by conscious agents is not construed in the experiential or ideational domain that realises the Field of a text. Thus, what Presocratic texts do differently is that they change the generic type from narrative to argument and, in terms of the Field of the context of situation, aim to represent phenomena by excluding conscious agents as being relevant to causal relationships that result in the experienced world.

Taking these two aspects of the Presocratics together, we have a move towards analogically modelling the 'invisible' aspects of the world in terms of events that are readily perceptible. The creation of the analogy depends on construing the invisible through the linguistic resources available to construe the visible, and grounding this construal in a particular persuasive framework of putting forwards propositions and perhaps providing evidence for them. Thus, the function of the persuasive element in such texts appears to have two simultaneous functions. Firstly, it allows the author to negotiate the transition from describing specific scenes in his experience (as happens

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boundaries. For further discussion of this, see Hussey (1972) p.16-18 and Ring (2000) p.26-28 which relates this to the concept of monism.

<sup>286</sup> For a discussion of how these notions— which are in essence nominalisations of human material and mental activities, and, in particular, social, political and legal institutions— are used in Presocratic philosophy, see Lloyd (1966) p.210-232.

in narrative) to construing more general, 'time-independent', states of affairs. Secondly, it negotiates the shift from one domain of construal to another. When these two moves are combined, the result is a shift from what is directly sensible to what is not directly sensible, but has the potential to provide an account of the behaviour of what is sensible, either by describing a causative framework or by demonstrating that the same kind of behaviour is shared between two disparate entities. This is what is achieved by the process of analogy.

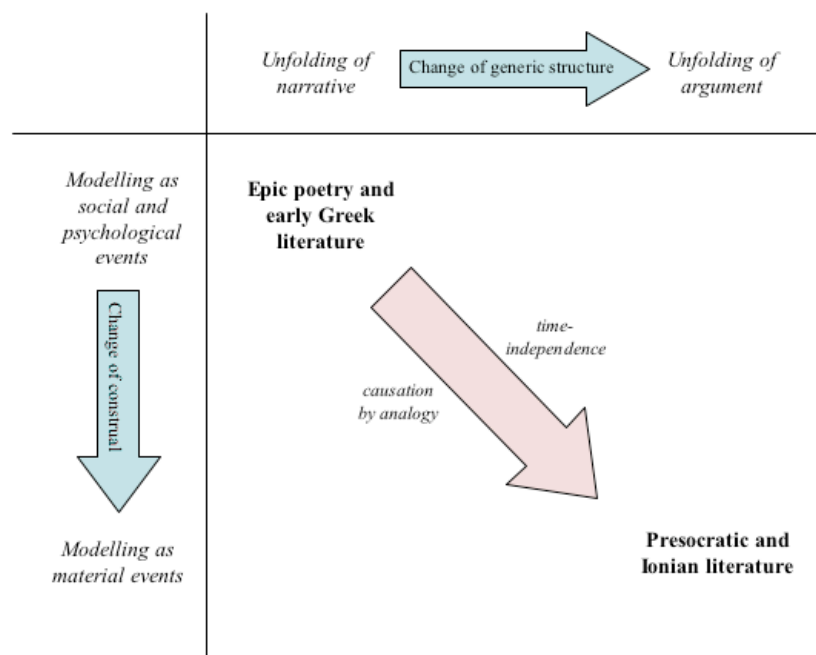


Figure 8-5 The shift in construing the invisible

### 8.2.6 The common modes of symbolic articulation of the visible and the invisible

However, one issue remains when comparing the visible and invisible. It is well established in the linguistic resources of Greek, and indeed of all IE languages, that

one can see the visible. At the level of lexicogrammar, mental processes usually are involved in a configuration with a *Senser* and *Phenomenon*<sup>287</sup>, where the *Phenomenon* usually denotes the experience of some object or event in the environment surrounding the speaker, or, in the case of fictive texts, within the 'experiential world' created by that text. Furthermore, such phenomena can be articulated semiotically or symbolically through the resources of projection, which is in turned shared with verbal processes<sup>288</sup>.

Given that the process of analogy involves describing the invisible in terms of the visible in Presocratic texts, and given that common linguistic resources are used to describe both, it is therefore possible, to construe an activity of 'seeing the invisible'. If we consider how this might be construed in the lexicogrammar, this means that any event or object construed in the 'invisible' world can be construed as a *Phenomenon*, or brought into symbolic existence through projection. However, there seems to a fundamental contradiction in doing so, because, obviously, perceptive processes usually involve a *Phenomenon* that denotes some entity in the directly observable world. However, the same lexicogrammar can be associated with cognitive mental processes, in terms of *Senser* / *Phenomenon* configurations and the ability of such processes to project. Thus, there is the potential for the activity of conscious cognition about what is invisible to be functionally analogous to perceiving what is visible, because the analogical modelling of the invisible on the visible involves the use of common linguistic, and specifically common lexicogrammatical resources.

In a similar way, talking about the invisible (which comprises a significant proportion of the Field of these Presocratic texts) has the potential to be functionally equivalent to thinking about the invisible, because of the potential for both mental cognitive

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<sup>287</sup> See Halliday (1994) p.112-119 and Matthiessen (1995) p.256-281 for the lexicogrammar of mental and perceptive processes. It is well worth noting at this point that the *Senser* / *Phenomenon* configuration, and the potential for projection, is shared between perceptive and mental cognitive processes, at least in English, so far as these discussions go.

<sup>288</sup> See Halliday (1994) p. and Matthiessen (1995) p.284-296.

processes and verbal processes to project locutions<sup>289</sup>. In Greek, this is reflected by their common functional lexicogrammar, and the mapping of these functions onto the same kinds of structural elements of the projected clause, such as the presence of conjunctions and the use of finite form verbs<sup>290</sup>:

*oida || hoti es Milêton erkhetai*

I know || that he is going to Miletus<sup>291</sup>

*eipon || hoti es Milêton erkhetai*

I said || that he is going to Miletus

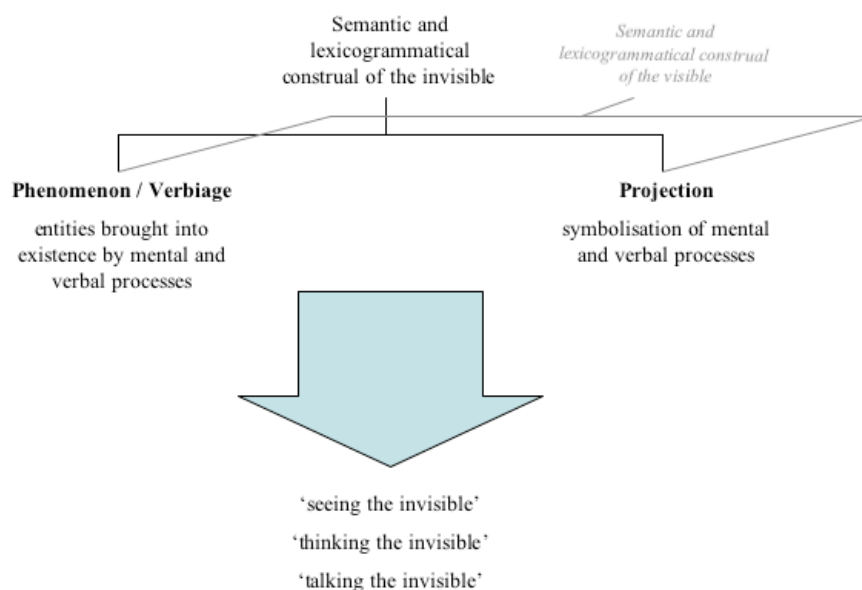
Thus, by virtue of the sharing of the linguistic resources between verbal, cognitive mental and perceptive processes, there is at least the potential for any text that proposes a particular conception of the invisible as part of its Field to be engaging in similar textual practices as those texts that describe the directly perceptible world.

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<sup>289</sup> Again, see Halliday (1994) p.264 and Matthiessen (1995) p.281-288 for the grammar of verbal processes, and particular to the nature of what can be projected by such processes.

<sup>290</sup> See the discussion of 'indirect discourse' in Smyth and Messing (1974) p.584-589. Generally speaking, finite and participial verbal forms are used in projected clauses to denote 'realis' situations, while infinitival and modalised finite verbal forms (such as the optative), or indicative forms with the modalising particle *an* are used to denote 'irrealis' situations. This is the case for clauses projected from both mental cognitive and verbal processes.

<sup>291</sup> This can also be rendered by the 'accusative and participle' construction, which is also the construction that construes projection from mental verbs of perception or directing someone's perception a particular entity, such as with the verb *deiknumi* 'show, demonstrate'. See Smyth and Messing (1974) p.470-472.



**Figure 8-6 The potentials associated with construing the invisible**

### 8.2.7 The functional equivalence of thought and perception

This leads to the notion of 'thought as sight'. This 'equivalence' of thinking and seeing is reflected in what might be called an 'ambiguity' in the sense of the verb *nōein*. The sense of this verb has been noted in the Presocratic philosophers Xenophanes and Heracleitus to denote a 'synoptic' intellectual appreciation of a given issue, which derives from the Homeric use of bringing something into one's awareness that may lead to further mental planning and material action<sup>292</sup>. This in turn leads to a conception by the philosopher Parmenides that thought is considered to be the symbolic articulation of reality, and thus resulting in a direct correlation, and perhaps identity between the processes and outcomes of thinking and the processes and states

<sup>292</sup> See Mortley (1986) p.61-63.

that underlie the 'real world'<sup>293</sup>. Thus one of the overall effects of the writings of the Presocratics is to assume that thought and reasoning– and its verbalisation through text– directly addressed the world and universe, just as acts of seeing and perception addressed what was in one's immediate material surrounds. This is what the Hippocratic doctors assume when they speculate on internal bodily processes, despite their insistence on the observable. In this way, their reasoning on those 'invisible' parts and processes of the body was thought to be equivalent to perception of externally visible bodily parts and functions. Herodotus, when proposing his theory on the flooding of the Nile, also assumes that his *logos* reflects the underlying processes that result in the observable phenomena associated with the Nile.

A consideration of these notions from the Presocratic philosophers shows that they are ones that are assumed in the intellectual approach of the later Hippocratic doctors, and Herodotus, insofar as his approach mirrors theirs. Even though these doctors– though inconsistently– emphasise what is observable to the senses, at the same time, through their notion of trying to investigate whatever is *aphanê* about the body, their investigation is always oriented towards what is not apparent to the senses, and for this they are indebted to Presocratic thinking. When considered from the perspective of the linguistic systems of Greek, the Presocratic approach, passed onto the later thinkers and writers, makes use of the lexicogrammatical resources common to perceptive, cognitive mental and verbal processes in an attempt to reveal to understanding the invisible organising principles that underlie the perceived world. We can therefore interpret Herodotus' practice of *historiê* as being a method of 'seeing the invisible'.

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<sup>293</sup> Mortley (1986) p.66.

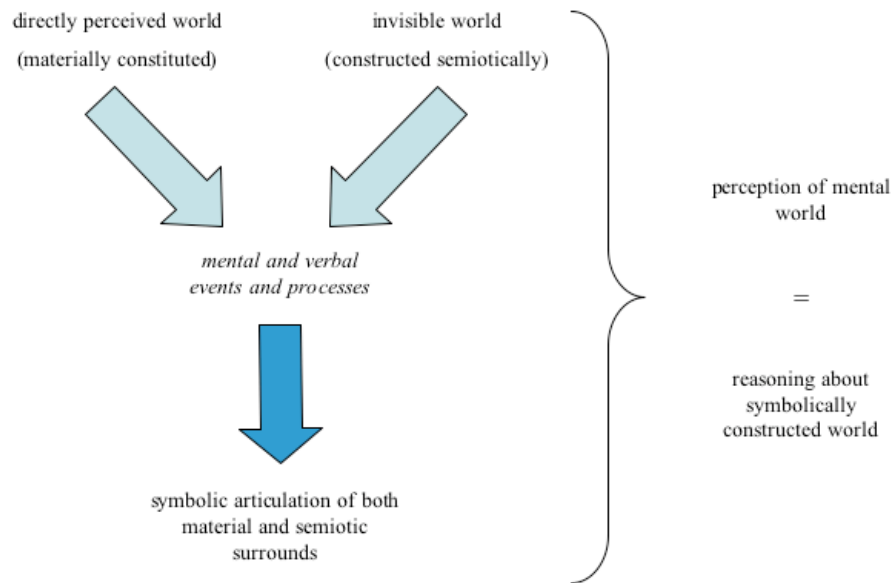


Figure 8-7 'Thought as sight'

### 8.3 Herodotus as a 'sophisticated storyteller'

There is substantial reason to think that Herodotus owed a substantial amount of his intellectual and textual practice to Presocratic philosophy, and shared this inheritance with the Hippocratic school of medicine at the time of his writing. This conclusion sits at odds with the usual conception of Herodotus as a storyteller who frequently digresses from the main business of writing history to cover a wider range of topics that have not that much to do with his main aim of describing the conflict between the Greek and Persian worlds in the sixth and fifth century BCE. Instead, we find that his main aim is to record the nature of other *thômata* apart from those of military and political conflict, and that his intellectual methods share affinities with those of

'serious' speculative and theoretical writing. From the linguistic point of view, we might expect that these affinities are reflected in the generic staging of his text.

### 8.3.1 Approaches to considering Herodotus as a 'serious' scientist

However, this affinity is also likely to be realised in the relational semantic structure of the text. More recently, there has been a move to consider Herodotus' text more 'seriously', and to investigate whether his language in any way reflects that of his intellectual contemporaries and predecessors. In particular, Thomas has investigated the methods of argumentation used by Herodotus in comparison to those used by the Hippocratic doctors<sup>294</sup>, and has found substantial grounds to propose that Herodotus' methods of argumentation greatly resemble those of the doctors inquiring into the function, normal and disordered, of the body. The evidence for this falls into two categories. Firstly, some of the patterns of argument are similar in character, in particular the *modus tollens* type of argument, which can be set out in formal logical terms as follows: if A then B; but B is not the case; therefore A is not the case. This is particularly used for the refutation of the views of others on the same subject, and also for considering or discarding the alternatives available to one when proposing a theory. The second group of evidence is the range of lexical items used to explicitly label particular pieces of information as kinds of evidence, and thus bring them explicitly into an argumentative framework, particularly when that argument is elaborate, or the author is rather self-conscious, for whatever reason, of the theory that he has proposed. More will be said about this later in section 8.3.5.

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<sup>294</sup> See Thomas (2000) p.175-200.



### 8.3.2 Problems in the approach: linguistic specificity, and Herodotus as a 'debtor'

The evidence presented by Thomas is convincing enough to establish thoroughgoing links between Herodotus and the Hippocratic doctors in terms of their methods of propounding a theory. However, the evidence as presented is not linguistically specific enough to gain a full appreciation of the function of these various features in the text as a whole, and there seems to be a dependence on the rules of formal logic as a linguistic tool of analysis, which may not be appropriate for determining the function of linguistic phenomena in a text.

Thomas' study proposes initially to investigate the possibility of intellectual commonality between Herodotus and the Hippocratic doctors, and investigates texts with a view to providing evidence, regardless of the linguistic level at which such evidence is located, to support the initial claim. Thus the claim of intellectual commonality is established, but it is not explicit or specific enough at what linguistic level these intellectual practices are shared. This is an important question, because it would be useful to have an explicit account of whether these shared practices are at the level of the strategy of unfolding meanings in a text, the means of configuring the meanings of a text, the nature of the 'quanta' of meanings that are made in the text, or the resources of grammar and lexis that are deployed, or a combination of these. Secondly, the metafunctional status of the evidence drawn to the argument is not clear enough. Knowing the metafunctional location of this evidence would also be useful, because it would help to clarify whether this intellectual method is a function of a particular way of construing experience, enacting a particular kind of interaction between writer and audience, or a particular way of developing and propagating the information of a text as it unfolds.

Additionally, one particular assumption appears to be brought to the analysis of Herodotus. It appears to be assumed that Herodotus has *borrowed* specific linguistic practices from others. The possibility still remains open that he developed his linguistic practices in text from the general educational and social environment in

which he lived, which includes the Hippocratic practice of medicine, without consciously borrowing from other intellectual disciplines. The concept of 'borrowing' is perhaps left over from the previous longstanding conception of Herodotus as an entertaining teller of tales, but falling short of the 'true intellectual rigour' required of serious scientific study, because of an overly naïve and credulous attitude to his sources of information, and a seemingly disorganised approach to the discussion of history and choice of subject matter to be investigated. Although Thomas' study shows that his reputation is being rehabilitated as an indicator of the kind of systematic thinking taking place at this time (and deservedly so), some notions still linger of him being an intellectual 'empty vessel' into which the approaches of others are put.

### **8.3.3 Functionally oriented approaches to Herodotus and to Greek text generally**

However, there has also been a more 'functional' approach to linguistically analysing these types of text, particularly those of the Hippocratic corpus<sup>295</sup>. One study by van der Eijk quite explicitly uses functional descriptions of the context of situation. In particular, he makes reference to the overall common function of the Hippocratic texts, suggesting that they played a role in the organisation and availability of information within a professional community for the purposes of communication and revision of that information, and its application to clinical practice<sup>296</sup>. He also takes rhetorical structure as being the relational semantic structure of a whole text rather than seeing it as a series of instances of isolated, disconnected tropes that are superimposed on the other 'blocks' of meanings of the text. Furthermore, the analysis is less guided by the need to support a particular theoretical proposition, and instead takes the linguistic features of a text on its own terms without reference to other types of texts. There is also explicit location of linguistic phenomena at specific linguistic

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<sup>295</sup> See van der Eijk (1997).

<sup>296</sup> van der Eijk (1997) p.98-99.

strata, such as dialectal variation with phonology and structural morphology<sup>297</sup>. There is also an appreciation of the difficulties applying traditional grammatical frameworks to explaining the grammar, and to show that such grammatical 'irregularities' are not, in fact, irregular, but are functionally motivated. Such an approach has the potential to articulate intellectual commonalities more precisely in terms of linguistic level and linguistic function.

If we take these two strands of research together, we can conclude that a linguistic analysis of Herodotus may reveal shared patterns of linguistic behaviour between his work and that of the Hippocratic doctors, and that this can be described systematically with reference to linguistic stratum and linguistic function, and with respect to function within a situational and cultural context. For the purposes of this thesis we will assume that both Herodotus and the Hippocratic doctors, both of whom are successors to, and contemporaries with, the Presocratic Ionian school of speculative inquiry, draw on a common linguistic fund afforded by the Greek of their time, and of preceding times. A similar approach will be advocated for examination of Thucydides' account of the plague.

At this point the discussion will linguistically examine Herodotus' text on its own terms, assuming that his writing lies at the heart of, and is symptomatic of, a more general movement to use the linguistic resources of Greek to consciously reflect on the experienced world and to foreground this as part of the Field of the text. This tendency also includes viewing the world, and the events and objects therein, as sharing a connection, either by analogy or a causative chain, with a relatively 'invisible' domain of experience which, although not visible to the senses, is amenable to reasoning in the same terms.

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<sup>297</sup> van der Eijk (1997) p.99-102. It is acknowledged that dialectal variation would properly include variation in all linguistic strata; however, the nature of the evidence that van der Eijk brings to the discussion properly locates the discussion at the level of phonology and the structural aspect of morphology (interpreted in this thesis as being the 'lowest' level or rank of the structural aspect of lexicogrammar).

### 8.3.4 'Sophistication' and the use of persuasive strategies

For these reasons, Herodotus is a 'sophisticated storyteller'. He is a storyteller, because his work can be well described, despite wide variance in subject matter and purpose, to be a collection of *logoi* or 'accounts', which arise from the process of *historiê* ('inquiry') into selected parts of the realm of the invisible. He is also, in a sense, 'sophisticated'. This is not because he is necessarily right about his information, evidence or conclusions, or that he has put together a 'watertight' argument for a particular conclusion. It is well known that this is not so, given from some of the fanciful observations and conclusions that he puts forth. However, similar things can be said, and have been said, about the work of the Hippocratic doctors as we have it<sup>298</sup>. However, nobody would suggest that their purpose was not serious, or that their aim was to be purely entertaining, and similarly no-one can make those kinds of claims about Herodotus on those grounds. Instead, what is 'sophisticated' about him is that he can produce an extended account of the 'invisible' aspects of a phenomenon, and make use of semantic strategies– more commonly referred to as 'techniques of argumentation'– in order to persuade his audience of the conclusion to which he comes.

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<sup>298</sup> For a detailed examination of the various fallacies, methodological discrepancies and limitations of the Hippocratic doctors, see Lloyd (1999) p. 127-225, which discusses the rather fitful emergence of empirical research in ancient Greece, in part stemming from a general distrust of sense-data. See especially *ibid.*, p.147-151, where perceptible substances are thought to constitute the body, but there is not much evidence to suggest that these hypotheses were tested or checked. Also see *ibid.*, p.153ff. for evidence of how the recording of clinical symptoms was in part informed by an implicit theory of 'critical days' in disease, and *ibid.*, p.159-169 where reference to detailed anatomical structure is made, but there is not much evidence that dissection was used to back up the description.

### 8.3.5 'Sophistication' and an awareness of forms of linguistic semiosis: the 'vocabulary of evidence'

The evidence is not only found in the semantic choices in which Herodotus engages. There is good evidence that he was quite conscious that he was using certain techniques of persuasion in his writing, and this is reflected in the use of lexical items that denote the notions of 'evidence'<sup>299</sup>. The term *tekmêrion* is generally used for evidence that is from a reputedly reliable oral source, or is crucial for 'clinching' an argument; such 'evidence' may relate directly to sense-data, but in many instances of use, this term comes to denote evidence that relates to the crucial part of a *modus tollens* type argument<sup>300</sup>. The term *marturion* has the sense of evidence, regardless of its importance in an overall argument, that acts as an indexical sign of the state of affairs that is claimed to be in existence, and has the potential to be presented physically to whosoever wishes to see it. This term also includes whatever is said by those who have directly witnessed a particular event, and so what they say is taken as 'standing for' the event itself; in this sense, it approaches the use of the term in a legal context<sup>301</sup>.

From the linguistic point of view, the important thing to note is that this represents a lexicalisation of the actual semiotic practices used when one creates a text, and therefore encoded to at least some extent in the lexicogrammar of Greek. One might suspect that this involves a degree of conscious reflection on one's semiotic practices in constructing a text, because this involves reconstruing certain argumentative techniques (essentially semiotic and linguistic processes) as experiential elements, which then are realised in the lexicogrammar as participants that are involved with other processes. Other evidence of this 'consciousness of argument' can be found in

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<sup>299</sup> For the discussion of the 'language of proof' in Herodotus, see Thomas (2000) p.168-170, 181-183, 192ff. for the discussion of the term *tekmêrion*, and p.191 for the term *marturion*.

<sup>300</sup> By the time of Aristotle, *tekmêrion* comes to denote 'formally valid proof', which is essentially an extension of its use in denoting a part of a reasoning chain. See *ibid.*, p.191.

<sup>301</sup> *ibid.*, p.191

the finding that these lexical items (and others such as *apodeixis* 'demonstration' and *anangkê* 'necessity') are more frequently found where Herodotus is propounding an argument where the conclusion or hypothesis may be thought to be controversial, or where the argument is circumstantial or is one based on probability<sup>302</sup>. This self-consciousness presupposes that Herodotus was quite aware of the particular methods of argumentation, and actively used them in his own work. This is because using an explicit 'vocabulary of evidence' presupposes that either he, and / or others whose work he was aware of, consciously reflected on the nature of argumentation, to the extent that they could view the semiotic practices inherent in a text not only as what they themselves and other people did, but also as an observable phenomenon of which people could be experientially aware. This in turn implies that the Greeks of the fifth century BCE– including Herodotus– were involved in making explicit, and directly commenting on, the linguistic behaviour of people, as being evident in the texts that they made.

Thus we can see Herodotus as someone who was quite *au fait* with the intellectual methods of his native Ionia of the fifth and fourth centuries BCE. In our eyes, his implementation of those techniques may at times be less than successful; however, it appears that the thinkers and doctors of Ionia were no more successful than he was. What matters is that he uses techniques that are reflective of the broader movement towards fully-fledged conscious reflection and theorisation which was well underway at the time, and was carried on into later times by people such as Thucydides. This ensured that the theorisation of many aspects of the experienced world became an entrenched cultural practice among the Greeks. However, in this discussion, there still remains a comprehensive linguistic analysis and interpretation to show that Herodotus was capable of presenting a theory, which functions as an extended model of the reality of certain phenomena of which he was trying to provide an explanatory account.

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<sup>302</sup> *ibid.*, p.193.

## 8.4 The *historiê* of the flooding of the Nile in summer in relation to the rest of Herodotus' *History*

It must always be borne in mind that Herodotus' account of the flooding of the Nile takes place within the rest of the text of the second book of the *History*, which concerns itself with an overall description of Egypt, a place relatively unfamiliar to the Greek audience for whom he writes. This book in turn is set within the *History* as a whole, the primary aim of which (and therefore part of the overall Field) is to record the momentous conflict between the Greeks and Persians. This seems to suggest a neat threefold nesting relationship of the account to the whole of the *History*. However, the picture is rather more complicated than this, to the point where it becomes quite difficult to view the whole *History* as a single unit. Instead, there emerges an intricate interrelationship of *logoi*, the complexity of which is probably best described relationally, in terms analogous to those of taxis and logicosemantic relationship used in the description of clause complexing and rhetorical structure<sup>303</sup>.

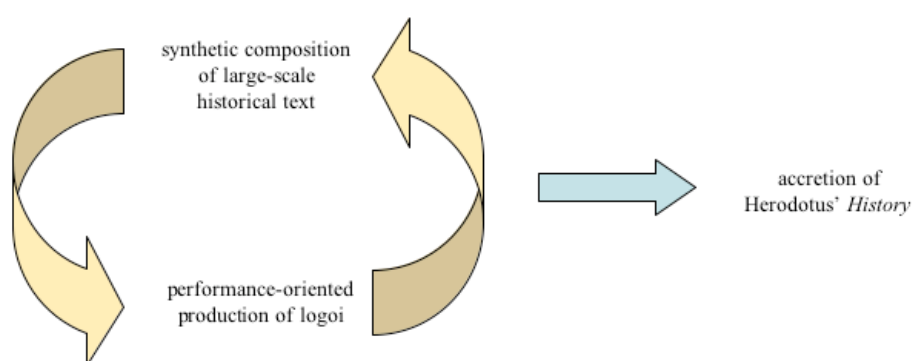
### 8.4.1 The *History* as a complex of interrelated *logoi*; the theory as a *logos*

This complexity is most probably due to two broad groups of factors. The first group may be termed compositional factors, and are to do with composing different *logoi* at different times, and not necessarily in the same sequence as the temporal sequence of the historical events described. In addition, this includes revising *logoi* written earlier in the light of new material or to relate them more securely to other *logoi* in the *History* in the process of creating a single, large historical text. The second group of factors might be called 'performative' in nature. There is some evidence to suggest that a given *logos* was intended to be read in one reading or one sitting to a listening

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<sup>303</sup> For more detailed discussion of the structure and arrangement of *logoi* in Herodotus, see Immerwahr (1986) and Lang (1984).

audience<sup>304</sup>. Thus the length of a *logos*, and its associated Field, were probably influenced or determined by the constraints imposed by the context of performance, which might include how long a speaker could keep speaking, the attention span of the audience, and the specific social and cultural occasion or occasions in which the text might be performed.



**Figure 8-8 Method of construction of the *History* of Herodotus**

Thus the structure of the history as a whole is expected to be, and is, complex. However, for the purposes of the linguistic analysis and discussion in this thesis, it will suffice to consider the *logos* of the flooding of the Nile (which includes Herodotus' refutation of other theories and the proposal of his own) as a relatively self-contained unit which can be treated as a single text (Herodotus 2.19-27). This *logos* can be further subdivided into three parts: the phenomena to be explained

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<sup>304</sup> For a discussion of this, and the place of orality and literacy in classical period Greece, see Thomas (1992).



(2.19), the theories of others and their refutation (2.20-23), and Herodotus' theory (2.24-26). Section 2.27, which follows on from Herodotus' theory, is seemingly added on as an 'afterthought'. Since the purpose of this discussion is to look at a single, relatively self-contained conscious reflection on a given phenomenon, section 2.24-26 is taken as the single unit for discussion. The semantic relationship of section 2.27, although informed by Herodotus's theory in 2.24-26, is really a mini-theory on the winds (or lack of them) that blow from the Nile, and thus does not address the question or issue presented in 2.19 which motivates the elaboration of the theory. For this reason it falls somewhat outside the 'brief' of this section as a whole, which is to explain the flooding of the Nile, and is therefore omitted from the analysis and discussion.

#### **8.4.2 The ethnographic motivation: the theory of the Nile in relation to an overall 'theory of otherness'**

Herodotus' theory of why the Nile floods in summer is located in the second book of his History, amongst a general account of the geographic, ethnographic, cultural and zoological characteristics of Egypt, assumed to be relatively unfamiliar to his Greek audience. This description, or series of descriptions, appears to be unrelated in terms of Field to the overall work of the History, which is to record the conflict between the Greek and Persian worlds in the sixth and fifth centuries BCE. However, the description of Egypt is prompted by a historical event– the Persian king Cambyses preparing to invade Egypt<sup>305</sup>. Herodotus then proceeds to describe the geographical aspects of Egypt, in particular its extent, how this relates to the river Nile and its delta, and the importance of the Nile to the Egyptian people, particularly because of the fertility of the delta region<sup>306</sup>.

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<sup>305</sup> Herodotus 2.1.

<sup>306</sup> Herodotus 2.5-18. There are some digressions from this thread of the history, such as a statement of sources of information in 2.3, and a synopsis of the Egyptian calendar and system of gods in 2.4.

Thus the geographical nature of the Nile is established as being important in determining the agricultural patterns, and therefore life, of the Egyptians. Thus, the subsequent discussion of the Nile is carried out with this background in mind– it is ethnographically and socially relevant. Therefore, when Herodotus describes the 'contrary' behaviour of the Nile, he sees the 'quirks' of this river as being central to Egyptian life. This ties in with the general tendency of Herodotus to see the Egyptians as 'other' or 'foreign', and describe them in such terms. If they are found to live along a river which is 'contrary' in nature, then this supports the covert thesis that the Egyptians are 'other' or 'different', even though it might be admitted (as Herodotus does) that the Greeks may have borrowed certain divine-sphere folktales such as the story of Hercules from Egypt<sup>307</sup>, and even if the Nile and the Danube are eventually thought to share similar patterns of behaviour<sup>308</sup>. Thus the account of the Nile in total is oriented to picking out, and explaining, the unusual, and so Herodotus' own theory about the Nile is motivated by the need to explain the unusual, in turn subserving a general theory of the 'otherness' of foreign lands and people. It also fulfils his overall aim in the History of investigating and recording *thômata*, because the otherness of Egypt falls into this category.

#### 8.4.3 The theory as part of an ongoing argument

Herodotus propounds his theory of the flooding of the Nile in summer after refuting three previously stated theories. He refutes them in terms of *modus tollens* type arguments as described previously<sup>309</sup>. Refutation of other theories on the same subject is a well-established practice in theory-building, not only in Herodotus but also among the writers of the Hippocratic corpus<sup>310</sup>. In particular, it can be

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<sup>307</sup> Herodotus 2.43-45.

<sup>308</sup> Herodotus 2.33-34, hinted at in 2.26.

<sup>309</sup> Herodotus 2.20-23.

<sup>310</sup> See Thomas (2000) p.176-182 which draws parallels between refutation in Herodotus and the Hippocratic work *On The Sacred Disease*, which has particularly prominent refutation of alternative theories on the cause of epilepsy. For a discussion of the refutation involved in *On The Sacred Disease*, and its author's use of *modus tollens*, see Lloyd (1999) p.15-27.

demonstrated that the proposal of medical theories took place in the context of active, and sometimes quite open and public, debate between rivals or colleagues about theory, diagnosis and treatment. This may have been motivated by the need to attract or maintain a clientele of patients, to encourage discussion and debate between doctors about a particular case, or simply a battle of theoretical ideas<sup>311</sup>. Thus such theories in the Hippocratic corpus are frequently put forth in relation to alternative, rival theories of agnate Field, and Herodotus is no exception to this practice.

However, such arguments have a dual orientation— one to the author's debating or intellectual opponents, and the other to an audience who are generally thought to be 'spectators' to the debate. Oriented towards the 'spectator', the author achieves two things. Firstly, as has been explained, the author aims to convince the audience of the correctness of his views over those of others. Secondly, he signals to that audience via such a debate that there is controversy about how to go about the business of construing a particular domain of experience or of performing clinical practice. In the case of proposing a theory against the competing theories of others, the author also demonstrates to the audience that the construal through language of a particular part of the experienced world is not yet settled, or is subject to further negotiation. As has been discussed earlier in this thesis, the notion of situations that are 'up for negotiation' is implicit in Homer, and there is a consequent attempt to resolve the situation through persuasive means. Herodotus also aims to signal to his audience that the way to linguistically or semiotically construe the flooding of the Nile is not yet settled. Thus we would suspect that he also adopts a persuasive strategy in order to resolve this.

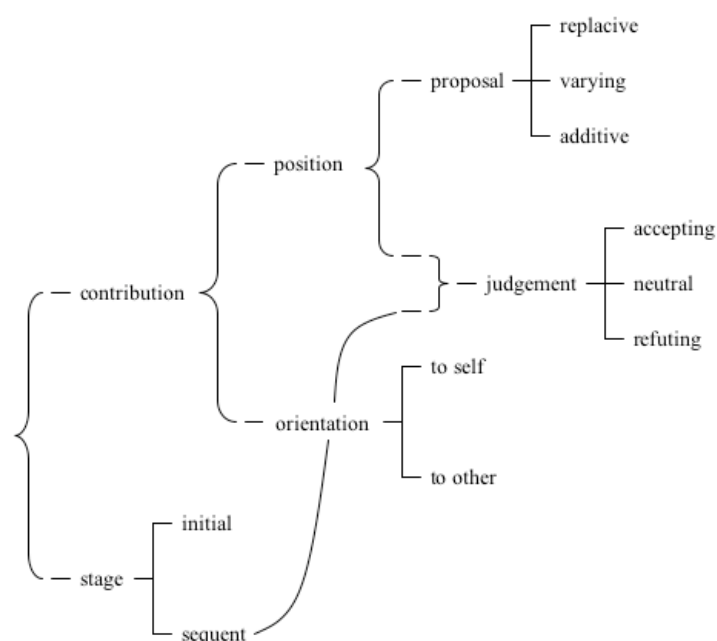
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<sup>311</sup> For a detailed discussion of this, see Lloyd (1999) p.86-98. See especially p.92-94 for the discussion of the author of the work *On The Nature Of Man* who advocates a particular view of the place of theory in medicine by contrasting it with the views of others, and *ibid.*, p.95-96 where the author of *On Ancient Medicine* argues for a particular approach to the study of medicine contrasted with that of other doctors and 'sophists' where the opponents are viewed (even if metaphorically) as participants in an actual debate in 'real time', which may give some indication of the actual rhetorical practice of doctors.

What may be also signalled– perhaps 'inadvertently' by Herodotus– is that his own theory is subject to criticism or refutation by others, just as he has refuted previous theories. This is not necessarily because there are certain faults with the particular line of argument that Herodotus sets out, although this might very well turn out to be the case. It is simply because arguments are there to be responded to, because, as indicated in the previous discussion of Homer in this thesis, all kinds of persuasive text aim to prompt a course of action in an audience. When the suggested course of action is semiotic in nature– to regard a segment of the experienced world in a certain way– then the response of the audience is also likely to be semiotic, and therefore likely to dialogically extend the kind of semiosis that Herodotus expresses, by engaging in further argumentative or persuasive discourse. It is no accident that Plato, who wrote on well into the fourth century BCE, chose to present his philosophical discourse in dialogic form– because he saw ideas and theories as being built through the linguistic interaction between reflective individuals.

If such an audience is going to respond 'dialogically' to a proposed theory, it is likely to propose an alternative theory with reference to Herodotus', by using selected parts of his theory as points to be refuted or supported. Herodotus, by engaging in persuasion and argumentation, increases the probability that argumentative text of agnate Field will be subsequently produced by others.

This naturally leads to a chain of cultural activity, where those who participate in the semiotic construal of a given area of inquiry produce texts that initiate a semiotic response in others, leading to the production of further texts about the same subject. In other words, this cultural activity has the potential to be recursive or recurrent in some way. Furthermore, these texts are positioned in relation to each other, as each cycle of recursion is performed. For these reasons, it is quite possible to represent this form of cultural activity in systemic terms, and so a system network can be constructed to represent its properties.



**Figure 8-9 Theorising and arguing: a system network representation of the context of culture in Ionian speculative texts**

As a result, various features of each 'cycle' of this cultural form can be specified with respect to the textually-based evolution of a particular line of enquiry (stage), its social and appraisal relation to other previous cycles (orientation and judgement), and its ideational contribution in relation to those of previous cycles (proposal). Thus such a system network can track a particular form of cultural activity by relating any instance of activity to prior and future instances along a number of metafunctional dimensions simultaneously. This system network would account for the way that Herodotus positions himself in the speculative and reflective process that is engaged in exploring a particular segment of the experienced world.



## **CHAPTER 9**

### **The extended model of reality – the semantic configuration of Herodotus' theory of the flooding of the Nile**

In this chapter, the generic and rhetorical structure of Herodotus' theory of the flooding of the Nile will be described and discussed. Reference is made to the linguistic analysis of this passage in the Appendix. Consideration of these more 'global' aspects of the semantic configuration of this text shows that the passage extends the use of the linguistic resources that have been found in epic poetry, to the point where there is a tight integration of the unfolding of the ideational construal of the account with its unfolding of an argument to an audience. This locates the theory within a wider, ongoing debate, of which Herodotus' theory is positioned as a part, and its semantic configuration is such that it opens up the potential for further engagement with the theory. This is achieved through certain linguistic motifs, such as projection and 'dual semantic relations' that 'fractally' recur at different levels within the semantic stratum of the text.

## **9.1 Written speech: the theory and its context of situation**

### **9.1.1 Statement of Field, Tenor and Mode**

Given the observations made so far on the practice and text of Herodotus, we are in a reasonably good position to specify the context of situation for Herodotus' theory on the flooding of the Nile, in terms of its reception by an audience. It can be set out as follows:

Field:

- Author engages audience in proposing a construal of states of affairs that are not apparent to observation but provide an analogising explanation of certain observable and observed phenomena concerning the Nile
- The construal is intended to contrast with alternative, but previously refuted, theories that have been proposed to explain the same observed phenomena of the Nile
- The construal is of states of affairs that are subject to debate and discussion

Tenor:

- Author writes for a public audience within a larger debate about the nature of the Nile
- Both author and audience are of equivalent educational status, and engage in conscious reflection of the experienced world
- Audience members may have varying degrees of agreement or disagreement with Herodotus and / or those whose theories he refutes
- Audience is assumed by Herodotus to not have 'made up their minds' about an explanation of the behaviour of the Nile
- Author positions himself as the proposer of an original explanation to an audience that is potentially receptive of his explanation



Mode:

- written channel
- written medium (although certain elements of the information organisation of the text may be a function of the activity of oral persuasive performance; see later)
- text is constitutive of the linguistic activity
- author aims to present a theoretical picture of the phenomenon under discussion, and to persuade the audience to adopt his theoretical position through a reasoned argument with reference to evidence; organised 'rhetorically' to maximise the text's persuasive force

### **9.1.2 Problem: the determination of the Medium of the Mode**

The above formulation of the context of situation derives from the discussion above of Herodotus in the context of the rest of his history, and his social and cultural context. However, there are some aspects of this formulation that require clarification. One of these is the 'medium' of the Mode. The channel of this text is clear enough, as we have the text is in written form, regardless of the previous history of its development, reception and performance. We can also probably assume that the ancient audience also had this text in written form. However it is the text's likely previous history that complicates the determination of its medium. Because ancient Greek no longer is in its spoken form, it is impossible to determine with reasonable certainty what differences there are between its spoken and written varieties in the sixth and fifth centuries BCE, when extended written text– beyond the production of inscriptions– was at least beginning to be produced. Study of the same issue for English reveals differences at the lexicogrammatical level, such as the number of lexical items per clause and the number and kinds of logicosemantic and tactic relationships between clauses in the clause complex<sup>312</sup>.

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<sup>312</sup> The lexicogrammatical differences between the spoken and written varieties in English are discussed in Halliday (1989). The lexicogrammatical differences are essentially due to the different ways in which information is packaged in a text.

Given the limitations imposed by the 'dead' nature of ancient Greek, it is probably best to assume that the lexicogrammar, in its textual aspect (that is, the elements of lexicogrammar that play a role in the organisation of clausal information), is similar in both the spoken and written varieties. Two arguments can be brought to support this view. Firstly, the written version of the language, by the time of Herodotus, is a relatively recent phenomenon, since the first literary texts to be transcribed into writing– the Homeric epics– only came into being two centuries before, and even then the wording of these epics suggests a largely oral method of composition, transmission and performance. Therefore, there has not been much time for much divergence, if any, in the textual lexicogrammatical resources of the spoken and written varieties of Greek.

### 9.1.3 'Complicating the medium': the oral nature of literacy in classical period Greece

Secondly– and in part a consequence of the first argument– there was still a strong 'oral element' in most of the literary texts of the time, in that there was still the feeling that literary texts should be performance-oriented. This was because the language of the Homeric epic– the first great Greek literary work– was performance-oriented, and so set a strong precedent for subsequent literary texts to have a similar orientation. Evidence for this tendency for later Greek literary texts to follow the precedent of Homer can be found in Herodotus' stated intention to apportion *klēos* 'glory, renown' to the events of the Greek-Persian wars, just as Homer did for the Trojan war<sup>313</sup>. In doing so, Herodotus is conscious of his need to *tell* others of this, to 'spread the word' amongst people of this *klēos*. This makes it quite likely that Herodotus intends his work to be communicated in real time to others, thus raising the possibility that his work is orally oriented.

Furthermore, many of the literary genres of the time– both in Ionia and generally in the Greek world, but particularly in Athens– still were overtly performed, whether

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<sup>313</sup> See Herodotus 1.1 in conjunction with Thomas (1992) p.110.

this be choral lyric, oratory, tragedy or comedy, and so placed an emphasis on the spoken as well as the written<sup>314</sup>. In fact, the prevalence of oral literary practice was probably so great in classical period Ionia and Athens, to the point where the usual notion of literacy being equivalent to fluency in the written medium and channel is seriously undermined<sup>315</sup>. Taking this evidence together with the strong possibility that at least sections of Herodotus were read to a listening audience<sup>316</sup>, it is quite likely that the textual lexicogrammatical resources of spoken and written Greek were still quite close to each other. Thus it is assumed here that the medium is of written type, allowing for the strong possibility that it is not too divergent lexicogrammatically from the spoken medium of Greek.

#### 9.1.4 Progression along a cline from spoken to written Medium

However it should be equally emphasised that the written medium of Greek was in evolution at the time, simply because the written channel, in which we presume the 'final form' of the History was written, has certain potentials for the communication and 'storage' of information in text distinct from those of the spoken channel. Indeed, we can probably assume that the composition of large-scale literary works exploits and develops these potentials. As a result, the transformation of isolated *logoi* for oral

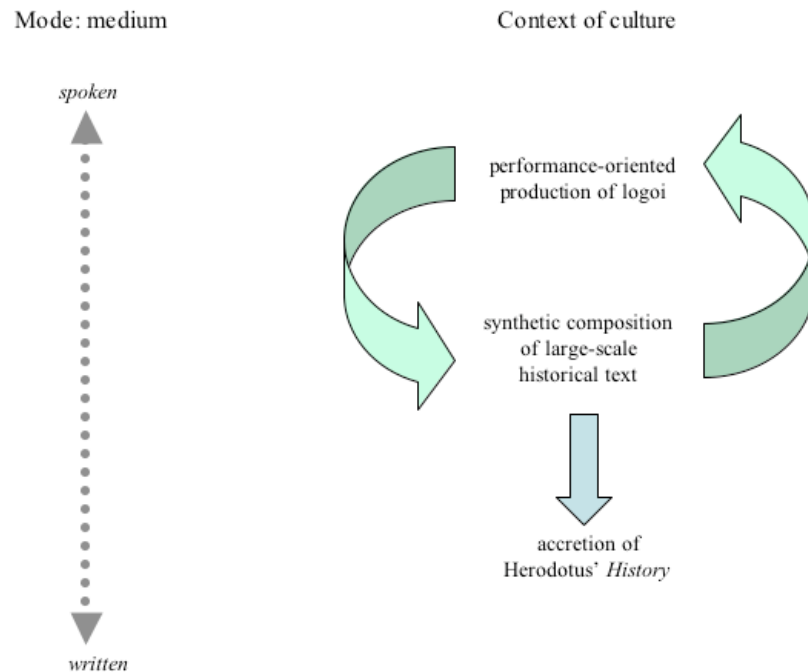
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<sup>314</sup> Additional evidence for this can be seen in the way that the textual organisation of clauses in Greek appears to reflect the nature of the communicative situation and the oral nature of that communication. This has been studied in Slings (1997) by examining the collocation of repetitive anaphora, hyperbaton and chiasmus in Greek with oral communication, where it is proposed that these features serve to 'chunk' information into units appropriate for orally communicated text. Textual organisation is tracked using a 'topic/focus' model based on Dik's functional grammar.

<sup>315</sup> For an extended discussion of the notion of literacy in a predominantly orally-based Greek culture, see Thomas (1992), especially p.101-127 for the influence of orality on literary practice, and Thomas (2003).

<sup>316</sup> Thomas (2000) p.249-269, which links Herodotus to similar oral practices by the Hippocratic doctors. Further evidence for the oral characteristics of Herodotus may be found in the 'trajectory-like' nature of the transitions between narrative sections, where sections are developed out of previous ones with less of a sense of there being a preliminary, planned framework. For this, see Lang (1984) p.1-17 which also compares this to oral story-telling in other, non-IE, Amerindian cultures such as that of the Quillayute.

delivery into a large literary text involves a fluctuation along a cline between spoken and developing written medium.



**Figure 9-1** The construction of the *History* of Herodotus and Mode: medium

## 9.2 Context of culture and its realisation in generic structure

The above discussion of the writing and probable performance of Herodotus' work (or at least sections of it) provides some insights into the kind of cultural activity in which its author engages. Whether in written or spoken form, he engages in a monologic text to which its audience is assumed to be receptive. This text has to proceed in a given number and type of stages to bring the audience to a particular theoretical position about a given domain of experience. In this way, this text is like the previously discussed conscious reflection of Glaucus in the sixth book of the *Iliad*,

because Herodotus has to persuade the audience to adopt a certain theoretical construal of a particular state of affairs, the construal of which is not yet settled. Therefore we would expect that some elements of the generic structure of this text to bear some similarities to those found in Homer.

### **9.2.1 Statement of generic structure**

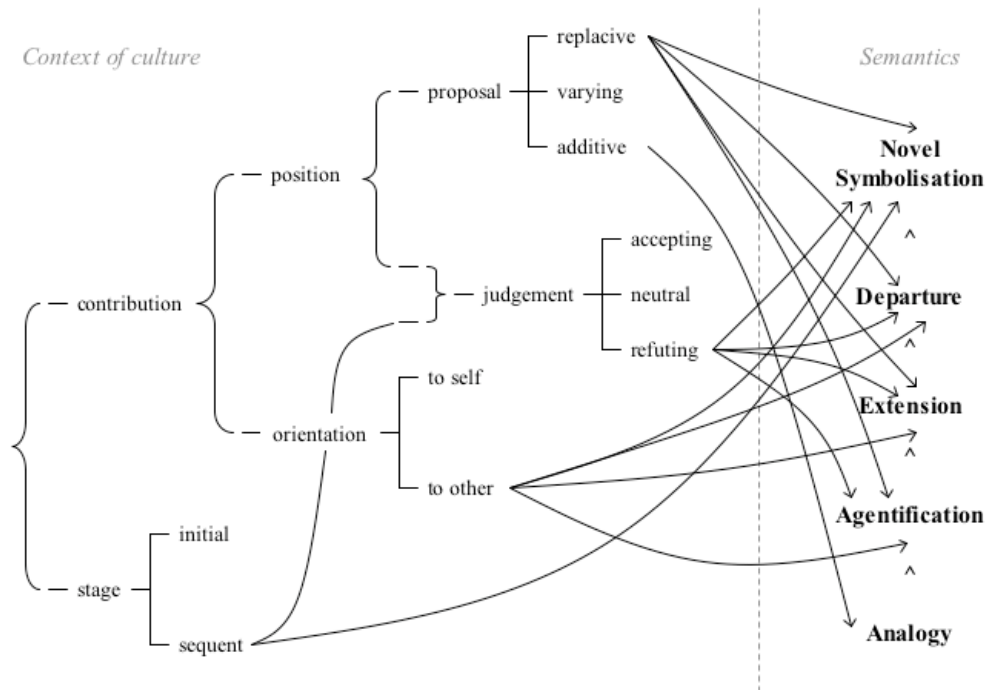
If we adopt the notion of the context of situation (which has been described above for this text) as being an instantiation of the context of culture, then we may be able to roughly characterise it as follows. This text realises the cultural activity of proposing a new way of symbolising the experienced world through extended text, in relation to other ways of symbolisation that have developed prior in time, and in preference to them. This leaves open the possibility of further symbolisation in the same terms. We would expect the generic configuration of the text to realise and reflect the stepwise unfolding of this process.

The generic stages of this text are as follows, each stage superscripted with the relevant clause complex numbers as used in the linguistic analysis:

Novel Symbolisation <sup>(1)</sup>  $\wedge$  Departure <sup>(2-4)</sup>  $\wedge$  Extension <sup>(5-14)</sup>  $\wedge$  Agentification <sup>(15-17)</sup>  $\wedge$   
Analogy <sup>(18-19)</sup>

### **9.2.2 Mapping between the context of culture and generic structure**

Each of these generic stages will be explained in turn. However, it is important to emphasise that such a generic structure is a realisation of at least some aspects of the context of culture. As such, it is possible to propose a mapping relationship between the context of culture that surrounds Ionian texts and the generic structure of Herodotus' account.



**Figure 9-2 A mapping between the context of culture and the generic structure of Herodotus' theory of the flooding of the Nile**

Such a mapping would not fully account for the functions that each generic stage fulfils. This is because it can be well supposed that several kinds of cultural activity are simultaneously operative in Herodotus' account. Not only is he proposing a theory about a particular observable phenomenon, he is also unfolding part of the picture of the geographical otherness of Egypt as a whole, as well as its ethnographic, social, cultural and zoological otherness. In addition, he is also engaging in making a lasting record of what he has observed. In summary, in his theory of the Nile, Herodotus engages in more than one cultural activity simultaneously, of which one is the exposition of a theory about the Nile. Thus a mapping of the context of culture of Ionian speculative texts onto the generic structure of the theory will not explain all of the functions of each generic stage.

### **9.2.3 Novel Symbolisation**

The initial stage of this text, the Novel Symbolisation (clause complex 1) is solely concerned with explicitly signalling to the audience that a new explanatory theory is about to be proposed. Nothing of the theory itself is set out at this stage; instead, it is solely concerned with indicating to the audience that the subsequent theory will be construed for the first time symbolically by the speaker. This stage is quite explicitly oriented towards the kind of activity in which the speaker engages the audience. In a sense, this acts as the 'projecting' part of the text, from which the theory proper is 'projected', analogous to the projection associated with mental and verbal clauses. This stage is responsible to a substantial extent for the way in which the unfolding of Herodotus' theory is an overtly symbolising process by the speaker. It also has the effect of largely (though not entirely) separating in text the overtly linguistic behaviour of the speaker from the experiential world that is construed by the theory.

#### *9.2.3.1 The projecting function of the Novel Symbolisation*

The projecting function of this stage– and other projecting functions internal to the other stages, as will be shown later– also has an important role in signalling to the audience that the state of affairs about to be construed is 'up for negotiation' by those people who have chosen to attempt such a construal. What projection such as this does is to localise the particular construal to the particular construer. This implicitly conveys that the theory about to be presented does not necessarily have wide acceptance, as well as showing that the theory is the embodiment of original thinking and reasoning. This, combined with the overtly argumentative strategy directed at the audience, signals that the construal of the particular domain of experience– the flooding of the Nile– is not yet settled.

### 9.2.4 Departure

The Departure (clause complexes 2-4) is the stage where the essential character of the theory is presented, from which the rest of the theory is propagated. The specific functions associated with this stage are to give a synoptic view of the theory, either by presenting a *précis* of the theory as a whole, or, as is the case here, to present the initial part of the theory. This initial part of the theory is intended to have characteristics that mirror those of the rest of the theory, and so in this sense this 'introduction' acts as a synoptic presentation of the rest of the theory.

#### 9.2.4.1 *Part beginning, part précis: the 'hybrid' nature of the Departure*

It may be claimed that, as this is part of the theory, this properly belongs to the subsequent stage of Extension of the theoretical model. However, this introduction is framed by meanings that are to do with presenting information in summary, and that by providing such framing, Herodotus intends to mark out and convey the 'essential character' of his theory before setting out into its detail. It could also be argued that this stage could be better labelled as 'synopsis' or similar. However, this does not describe the entire function of this stage, as it does not fully encapsulate the *whole* theory. It does not provide a counterpart to the function of the Agentification stage that follows the body of the theory later in the text. Instead, it is part initiation, part synopsis of the theory as presented, and so is labelled Departure. It is called so for two reasons. Firstly, it does indeed 'start off' the theory– it begins the theoretical 'picture' of the cause of the flood. However, it also is the point from which the author chooses to unfold his account. In this sense, it is analogous to the lexicogrammatical notion of Theme in the information structure of the clause, where the Theme acts as



the 'departure point' from which the rest of the information of the clause unfolds<sup>317</sup>. This is indeed significant, as further discussion will show.

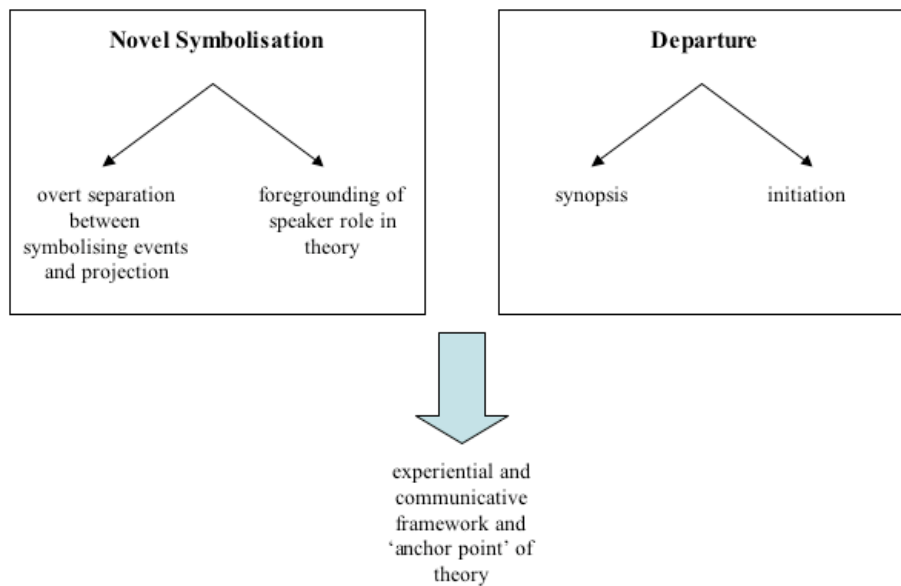
#### *9.2.4.2 Relationship of the functions of the Departure to overall narrative function in Herodotus*

The functional character of the Departure is in part due to Herodotus' emphasis on narrative in the History as a whole. As we have seen from the discussion of Homer, there are linguistic resources in Greek to provide a synopsis-like stage in conscious reflection, such as the Modelled Premise stage in the conscious reflection in *Iliad* 6. Thus there is scope for Herodotus to provide an unambiguously synoptic account of the theory he is about to present. But he does not choose to do so. Instead, it appears that he combines this function with the need to initiate the theory. This initiating function is analogous to that found in any account of an historical episode or 'digressive story' found in Herodotus, and so part of the narrative genre. It may also be analogous to an interspersed Placement and Initiating Event that precedes Sequent events in the fairytale in English<sup>318</sup>. This we may see the Departure stage in Herodotus' theory, as being a 'hybrid' between narrative and summarising, synoptic functions.

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<sup>317</sup> See Halliday (1994) p.37-39, and, following this definition, Martin (1992) p.434 and Matthiessen (1995) p..

<sup>318</sup> See Hasan (1996).



**Figure 9-3 Novel Symbolisation ^ Departure**

### 9.2.5 The Extension and its internal generic structure

The stage of Extension (clause complexes 6-14) comprises the major part of the theory. Its major function is to construe the theory itself, where it is intended to account for the phenomenon under examination. Unlike agnate stages in Homeric similes and conscious reflections, the theory is not a description of a separate state of affairs, the organisation of which is shown to be analogous to another part of the experienced world. Rather, it is intended to stand in a causative and / or temporally prior relationship to the state of affairs to be explained. This is due to two factors. Firstly, the Extension has its own internal generic structure, as will be explained below, which emphasises causal linkages between 'quanta' of experience. Secondly, the Extension stands in relation to the later stage of Agentification (also to be

explained below), the function of which is to selectively summarise the events of the Extension in terms of causation.

#### *9.2.5.1 A shift from analogy to causation*


This 'move' from analogy to causation is not original to Herodotus or Ionian thinking– Hesiod provides a causal explanatory account in the story of Pandora– but it has an important consequence. The process of analogical construal of a given state of affairs in terms of another phenomenon constrains the ways in which that state of affairs can be semiotically developed. The semiotic features of the phenomenon (the construal of which is 'settled' or encoded in the semantic and lexicogrammatical systems of Greek) to which it is compared essentially 'determine' how the state of affairs is subsequently modelled. However, if a given, relatively 'unknown' state of affairs to be construed in the theory stands in a causative relationship to the observed phenomenon to be explained, then the events construed in the Extension have the potential for relatively 'free extension'. That is, the theory has the potential to be developed free of analogical constraints, and free of the relatively closed 'semiotic shape' of the phenomenon that provides the analogical model.

The only requirement demanded of the construal of the events of the Extension is that it should be of such a kind as to facilitate the creation of causative links between the events of the theory, and those of the phenomenon to be explained. This essentially means that only the same kinds of experiential lexicogrammatical resources are deployed in both theory and phenomenon. We have already observed this in Hesiod's account of the story of Pandora, where the construal of both divine and human realms in the same semiotic terms allows causative relationships to be developed between the two, and a similar process is occurring here. This issue will be explored later in this thesis, particularly in relation to the lexicogrammar (Chapter 10).

### 9.2.5.2 The construction of a 'habitude' through the internal generic structure

Part of the reason why the Extension has this 'causative' character can be found in its internal generic structure, which can be set out as follows. The relevant clause complex numbers are superscripted.

Projecting<sup>(5)</sup> ∧ [ Habitual Sequent Event<sup>(6,7,8,11,12)</sup> ∧ ] · (Index<sup>(9)</sup>) · Contrasting Event<sup>(10,13,14)</sup>]



The above statement of the Extension shows that there is a recurrent nature to its staging. This activity consists of a series of Habitual Sequent Events. Taken together, these habitual events (which in this case denote the usual effect of the sun on the flow and distribution of water to rivers) may be provisionally labelled 'Habitude'<sup>319</sup>, as it builds in more detail an ongoing state of affairs that underlies the usual seasonal behaviour of rivers. This 'Habitude' essentially consists of a series of Habitual Sequent Events, which have the option of being complemented by a description of particular observable events that are in some way indicative of the operation of specific events construed in the theory (the Index). Alternatively, and quite prominently in this account, these habitual events are apposed on occasion to the specific behaviours of the Nile, construed through the stage of Contrasting Event. All of these stages are prefaced by a Projecting stage to explicitly signal to the audience that the writer is about to put his theory into symbolic form.

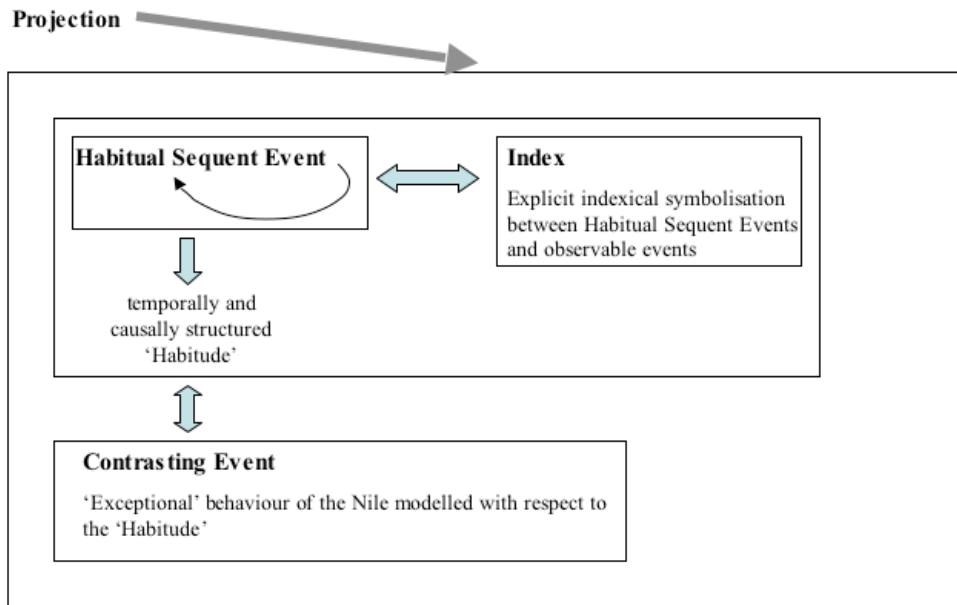
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<sup>319</sup> This term is consciously borrowed from Hasan (1996) p.61-64 in the context of the description of the generic structure of the nursery tale. In this account, Habitude denotes the habitual actions within the given setting for a story– what the characters usually do, for example– before the Initiating Event of the story provokes a change in these actions. Habitude has an elaborating function with respect to the generic stage of Placement of which it is a part.

The generic structure of the Extension is dominated by the presence of Habitual Sequent Events that in general have the function of constructing a 'Habitude'. These will most likely involve temporal and causal events. However, this generic structure in itself is not responsible for ensuring that the events described in the theory stand in a temporal-causal relationship to the observed phenomena of the Nile. Instead, because of use of 'sequent event'-type stages, there is increased likelihood of the use of semantic and lexicogrammatical selections to construe temporal and causal relationships. This will in turn help to forge temporal and causal links between theory and observation.

*9.2.5.3 Explaining and developing the unusual from the usual:  
internal staging in the context of a 'theory of otherness'*

The other aspect to note about this internal staging of the Extension is that it is geared to the overall discourse function that Herodotus adopts of explaining the unusual. He starts with the usual behaviour of the sun and its effect on water distribution, and from this he unfolds the 'unusual' behaviour of the Nile influenced by the particular course of the sun on those lands from which the Nile originates and through which it flows. The effect of the sun is held to be uniform across all rivers; it is just the seasonal and geographical peculiarities associated with the Nile that cause it to behave unusually. In effect, the unusual is explained with reference to the usual and familiar; this is an important recurring feature, not only in terms of generic structure, but also in the use of metaphor at the lexicogrammatical stratum, as will be shown later. It is also interesting to note this appears to be an analogue in the ideational or experiential domain of the explicit establishment of Theme, from which a Rheme unfolds, or in terms of the Information system of the clause in English, the way in which New information unfolds out of Given information. In an important sense, the experienced world is semiotically modelled in terms of information progression and development in text. This issue will be discussed in more detail later.



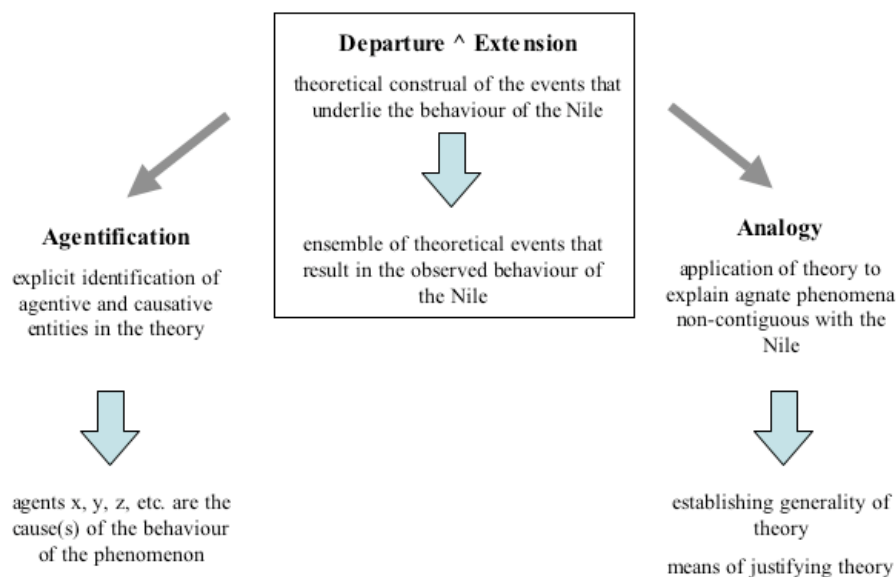
**Figure 9-4 Stages internal to the Extension**

### 9.2.6 Agentification and Analogy

The last two generic stages of Herodotus' theory draw on the characteristics of the events that comprise the Extension, but in different ways, and for different reasons. The function of the Agentification is to selectively summarise the events construed in the theory in terms of causation, to identify consistently occurring or dominant causal agents, and to directly link events in the theory to aspects of the observed phenomena. The statements of causation are assumed to be readily inferrable from the theory that has been previously laid out. Thus, the function of the Agentification, read against the Extension, is to establish one broad function of the theory– to explicitly establish agency and causation.

### 9.2.6.1 The function of the Analogy in establishing generality

The function of the Analogy, on the other hand, is to establish the generality of the theory. It does so by applying the causative framework established by the Extension (and identified by the Agentification) to other observed phenomena which are non-contiguous with the phenomena that are the original subject of the theory. In this case, a hypothetical rearrangement of seasons and winds is used to show that a river in another region (the Danube) would behave in a similar way to the Nile if it were to be subjected to the same actions of the sun, and its consequent effects on rainfall and water distribution. This stage is in a sense dependent on the prior stage of Agentification, as this previous stage has the function of 'highlighting' the causative processes within the theoretical picture and those which are thought to result in the observed phenomena.



**Figure 9-5 Agentification ^ Analogy**

One important aspect of both of these stages is that this generic staging in itself is not sufficient either to establish the identification of agents and the events in which they are involved, or to demonstrate that the theory can be used to account for other agnate observed phenomena. These functions must be realised by other selections at other linguistic strata. The generic stages simply show that the identification of agency and the establishment of generality occurs in discrete stages in the text.

## **9.2.7 Some comments on the overall organisation of the generic stages**

### *9.2.7.1 Emphasis on explicit symbolisation and projection*

One prominent feature of the generic staging of Herodotus' theory is its relatively explicit emphasis on the creation of a novel symbolic activity by the writer to the audience. This is apparent in the use of stages that have the function of 'projecting' the rest of the text. Thus it may be possible to categorise these stages as being 'projecting' or 'projected'. This has the function of experientially separating the activities of talking by the speaker from the actual expounding of the theory itself. It is true that one does get evidence of 'authorial presence' in the actual substance of the theory, such as the use of mental cognitive processes in the first person in the stage of Agentification (*nenomika* 'I think' with a subsequent projected clause in 15.49). However, these instances seem to be a 'lexicogrammatical microcosm' of the projecting relationship between generic stages in the text as a whole. Thus the process of symbolisation– of bringing something into symbolic existence– to an audience tends to be foregrounded in the more 'global' organisation of the text.

### *9.2.7.2 Modelling of generic stages on textual progression*

The other feature of the generic staging is its analogy to the organisation of information in the text. This is apparent in two ways. Firstly, the stage of Departure



signals both the starting point of the theory, and also the kind of experiential framework that is used in packaging this information. The subsequent Extension proceeds from this point, and in the same 'experiential manner'. It appears that Herodotus has chosen this way of initiating his theoretical discussion, and that it is a hybrid between a purely 'narrative' and purely 'synoptic' stage. He has made this particular choice in order to focus his audience's attention on where his account starts from, and in which direction it is proceeding, and on the clausally-oriented semantics and lexicogrammar that he uses to construct his theory. It seems that he is in some way consciously reflective on the pattern of information development that occurs in text, that he is 'textually aware', in the sense that he knows that his account has to start from a particular point, and to be developed from, and with reference to, that point. Given the suggestion that he is quite conscious that he is speaking and / or writing to an audience, this awareness may not be completely surprising.

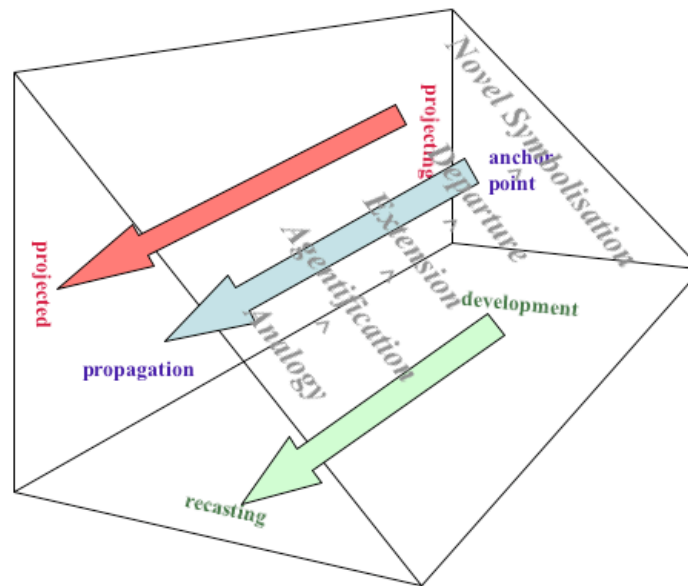
The second piece of evidence from the generic structure that reveals the importance placed on the organisation of the text relates to the functions of the Agentification and the Analogy. These two stages together effectively 'summarise' the information developed in the account so far, in order for the theory to have explanatory power and to be generalised to other agnate phenomena. This summary is enabled by a reconstrual of the information in terms of agency. As noted before, the generic staging in itself is not responsible for the reconstrual of the phenomena inherent to the theory. However, it does show that the activities of developing, and then reprocessing, text information are discrete in Herodotus' account. By the same token, there is also development and reprocessing of the 'ideational picture' constructed by the theory.

Furthermore, there is the suggestion that the way in which information is organised in a text provides the model for the development of a theory about the experienced world. More precisely, this is reflected in the way the events of a particular phenomenon (the behaviour of the Nile) are construed with reference to other events that have been construed prior in time– this is particularly reflected in the internal staging of the Extension. This point may seem trivial at first. After all, all texts of

whatever kind do implement the systems of the textual metafunction as they progress and develop through time, and Herodotus' account is no exception. However, in this case, the generic structure quite explicitly enables the experiential construal of what is unknown or 'new' in relation to what is known or 'given'. In other words, the construal of the Nile is assumed to have a 'reference point', in the same way that Rheme relates to Theme, and New to Given in the textual systems of a language. This is a pattern also present in metaphorical construals, and so a full discussion of these issues will be reserved till after a consideration of the lexicogrammatical metaphor in this text.

### *9.2.7.3 An argumentative framework: orientation of generic stages to an audience*

The more global aspects of the semantic organisation of the text are oriented towards the organisation of text information towards an audience. As a result, there is a clear segmentation between the author, the audience and the text that is developed, and there is a generic progression from signalling a novel symbolisation of a theory, to developing, then recasting a theory in relation to the Field (in this case, by identifying causation and agency) that the author attempts to address. In addition, the sequence of generic staging reflects a tendency– also exhibited in the lexicogrammar– of presenting and developing the theoretical model so that the overall model that is presented has an organisation like that of the text by which it is developed.



**Figure 9-6 Overall patterns of generic unfolding of the text of Herodotus' theory**

### **9.3 The rhetorical structure of the theory of the Nile**

The relational semantic structure of Herodotus' theory is quite complex, as the following discussion will show. It is complex for three reasons. Firstly, there are a relatively large number of parts brought into relation with each other. Secondly, many of the rhetorical relations have a dual orientation, and in this sense this text further utilises the resources used in conscious reflection in Homer. Thirdly, the use of the RST framework brings up particular problems of analysis, which have implications for how the theory of RST might be modified and extended.

### 9.3.1 Rhetorical relations between generic stages

#### 9.3.1.1 *Projecting relation of the Novel Symbolisation; satellite relationship of the Analogy*

The first feature to note is that the stage of Novel Symbolisation stands in a projecting relation to the rest of the text. This concurs with its function in the text as a whole– it serves to signal to the audience that the author intends to put a theory of a particular segment of the experienced world into conscious semiotic form.

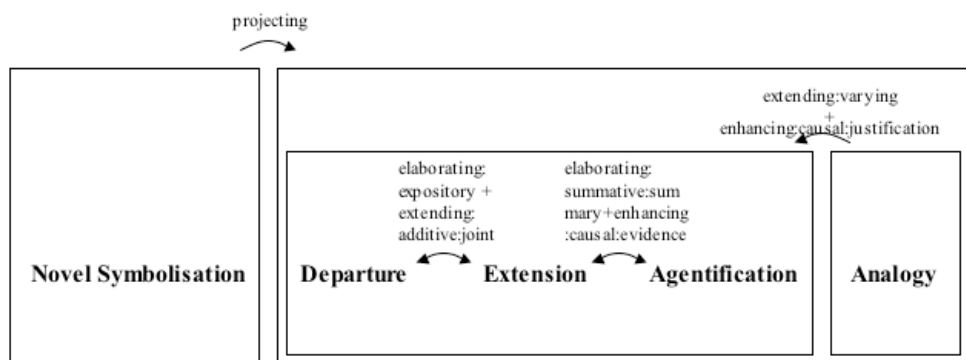
The second feature to note is that one of these stages (the Analogy) stands in a satellite relation to the Departure, Extension and Agentification of the theory. We can explain the satellite nature of this stage as follows. The Analogy is not directly concerned with the Field of this text, and the understanding of the Analogy is not necessary to understanding how the theory explains the behaviour of the Nile. At best, the Analogy is used as a supporting argument to the theory to increase its explanatory legitimacy; this may be a consequence of the practice many philosophical and scientific texts adopt of assuming a 'uniformity of effect', where the theory is assumed not only to explain the phenomenon under investigation, but also other 'agnate' phenomena, such as the behaviour of other rivers<sup>320</sup>. However, this does not mean that it is essential to the main argument, and in this case it is not. Therefore it stands in a satellite relation to the other stages of the text. In contrast, the other stages have a direct bearing on the Field of the text, in framing and constructing the theory; omission of any of these stages would severely affect the theory presented.

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<sup>320</sup> For the discussion of the notion of the uniformity of effect, particularly in relation to the *modus tollens* argument, see Thomas (2000) p.182-183. For the interpretation of the uniformity of effect, the relevant observed phenomena have to be considered to be 'agnate' or similar in some way. This is a complex issue and relates to the notion (originally derived from Thomas Kuhn) that most observation (and therefore the agnation of discrete phenomena) is 'theory-laden', in the sense that certain assumptions are made in identifying phenomena as agnate. See Ladyman (2001) p.56-58, 109-115.

9.3.1.2 *Ambiguity of expansion type in the rhetorical relation between Departure and Extension, and ambiguity of time*

The Departure and Extension appear to be in a relationship of expository elaboration. This is because the Extension expands upon the features introduced in the Departure. This is explicitly signalled by the meanings in the initial part of the Extension that indicate that the 'picture' presented in the Departure is to be construed in more detail in the Extension (5.14-5.15), contrasted with the meanings in the Departure to do with providing a 'summary' of the information that is about to come (3.9-3.10).



**Figure 9-7 Inter-stage rhetorical relations**

It maybe argued that the other meanings in the Extension are to do with not just elaboration but also enhance the Departure in terms of a temporal sequence– the events of the Extension 'follow on' temporally from those of the previous stage. This is a consequence of the hybrid nature of the Departure– part initiation of narrative, part summative foretaste of a theory. It could also be argued that the Extension stands

in a relationship of additive extension to the Departure, if the relationship is read against the Field– the Extension adds more experiential information about the theory initiated in the Departure.

What counts against the suggestion of a temporally enhancing relationship is that the events construed in both Departure and Extension– and in the text as a whole– are not specific to time. In some places in the text, where the effect of the sun is construed to apply to the behaviour of all rivers, the events are not specific to place. Thus there is a lack of 'absolute' temporal deixis in the theory. There may be a clear temporal sequence of events described in the theory, but, because of its lack of 'absolute' deictic value, this does not accord with the notion of a narrative sequence. This is analogous to the contrast of events in Hasan's conception of *Habitude* versus *Sequent Event* in the characterisation of the nursery tale genre<sup>321</sup>. Furthermore, narrative activities are not foregrounded in the Field or Mode of this text. In general terms, the rhetorical structure of a text has to subserve most directly its context of situation, as rhetorical structure is oriented towards what the author wants to do with the text and with whom<sup>322</sup>.

### *9.3.1.3 Simultaneity as an alternative to ambiguity*

The notion of an additive extending relation between Departure and Extension is less easy to discount, and thus makes the characterisation of this rhetorical relation problematic. This is reflected in the fact that the Extension does not simply restate or reconstrue the events of the Departure, but actively adds events to this picture. Thus the most attractive interpretation is to characterise this rhetorical relation as being not only performing expository elaboration, but *also* additively extending. This is due to two features of the relevant generic stages: the hybrid nature of the Departure, and the 'habitude'-like nature of the events involved in the Extension.

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<sup>321</sup> See especially Hasan (1996) p.61-63.

<sup>322</sup> For a discussion of this relationship between rhetorical structure and context of situation, see Butt and Matthiessen (draft, 2000) p.278-282, which argues that Mode most directly 'resonates' with choices of rhetorical relations.

*9.3.1.4 Agentification and Analogy: two simultaneous orientations*

9.3.1.4.1 The Extension – Agentification relationship:  
evidence and summary

The relation between Extension and Agentification can also be dually characterised. However, the important feature to note is that we have a rhetorical relation that is dually oriented– to external and internal relations– as well as being of two different types of expansion (elaboration and enhancement). A reading of the Agentification provides a summary of the events of the Extension, and thus the Agentification stands in a relation of summative elaboration to the previous stage. If we were to hypothetically reverse these stages, the Extension would provide an externally oriented, expository elaboration of the Agentification, essentially the 'converse' of the actual relation that obtains here.

However, at the same time this is not a straightforward summary, as it explicitly foregrounds the notion of causation. As we will see later in the discussion of the lexicogrammar of this text, causation is covertly construed in the Extension through particular selections of ergativity and agency. In effect, the Extension provides evidence for the claim made in the Agentification in terms of identifying causation, because a reading of the Extension is intended to satisfy the reader as evidence for the validity of the statements made in the Agentification. Thus, the relation here is also one of internally-oriented enhancement, and more specifically a relation of evidence. This duality of orientation has already been seen in relation to Homer, especially in fulfilling the function of consciously reflecting on experience, and given that this relation is involved in an important function of the text– to link the events of the theory to the observed phenomenon which is the subject of the theory– it appears that this duality may have a crucial role in consciously reflecting texts. This will be

discussed in more detail later, when Herodotus and Homer are compared in this respect.

#### 9.3.1.4.2 The Agentification – Analogy relationship: variation and justification

We have already commented that the Analogy stands in a satellite relation to the Departure, Extension and Agentification. Again, the rhetorical relation here is dually oriented. When considered externally, the rhetorical relation is one of varying extension, because the Analogy simply varies the spatial parameters in which the theory is supposed to operate. This is done in order to propose a uniform effect of the events described in the theory on a different river, the Danube. This is also a form of extension, because the Analogy tells the audience more about the explanatory scope of the theory. At the same time, however, when considered internally, the relation is also an enhancing one of justification, because the function of the analogy is to demonstrate, via the assumption of uniform effect, that the theory can be used to explain agnate phenomena beyond the Nile.

#### 9.3.1.5 *The melding of persuasion and construal: the functions of dual orientation*

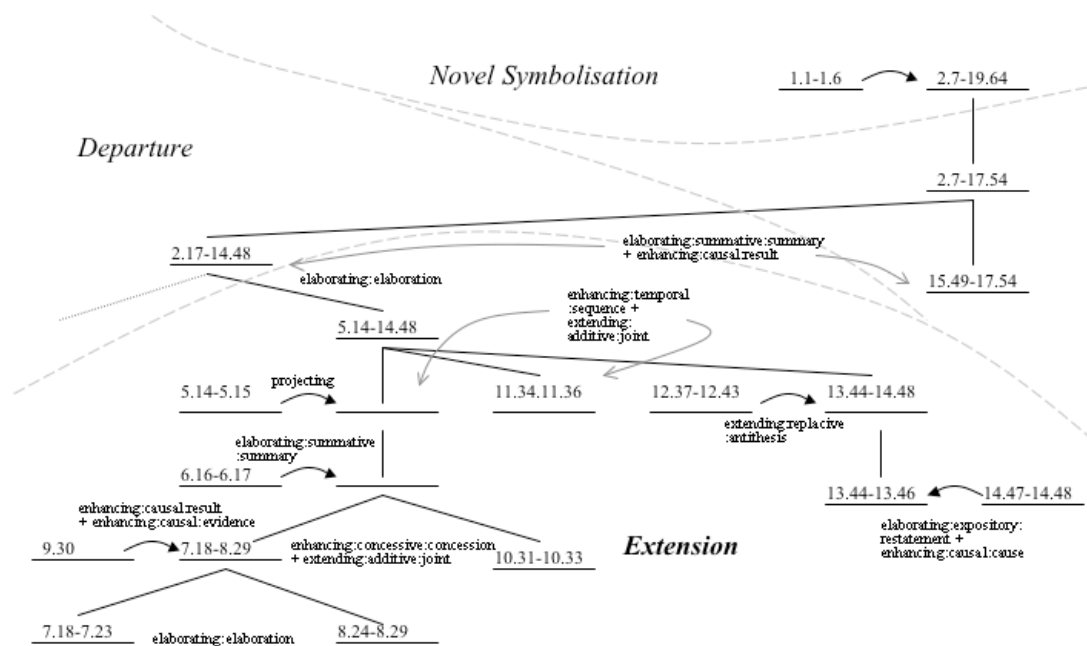
In this particular case, because of the positioning of the Nile as being 'unusual', Herodotus aims to convince his audience that he has an explanatory account of both usual and 'unusual' rivers. The effect of this is to increase the legitimacy of the theory itself that is propounded in the prior stages of the text, and so the rhetorical relation is one of justification. Thus a dually oriented rhetorical relation is not only used to link theory and observation, but also to establish its generality and its justification.

In general, the interrelation of the generic stages is characterised by dually oriented rhetorical relations. In one case the dual orientation is a product of the 'hybrid'



functions of the Departure; the rhetorical relation between Departure and Extension reveals that this hybridity is between different types of experiential expansion. However, the relations between other generic stages have an internal and external duality, a feature that was developed in the conscious reflection in Homer. This reflects, as in Homer, a simultaneously deployed text strategy of concurrent persuasion and construal.

### 9.3.2 The rhetorical structure of the Extension



**Figure 9-8 Herodotus 2.24-26: Rhetorical structure- Extension (see also Appendix C)**

### *9.3.2.1 Loss of absolute temporal deixis*

The stage of Extension has three co-nuclear constituents, the relations between which are also dually oriented to two different types of experiential expansion. This is also a function of the 'habitude-like' nature of the events of the Extension. As will be discussed below in the explanation of the lexicogrammar of this passage, this is reflected in the use of the present indicative realised with the processes. Present indicative verbal forms in ancient Greek are well established in the expression of processes whose occurrence is habitual, repeated or ongoing<sup>323</sup>, and this is the function of the present indicatives in this section. As a result, many of events lose some of their temporally deictic specificity– they are not construed to be happening at one specific point in time. However, at the same time there is a quite definite ordering of the temporal sequence of events, and where each event stands in temporal relation to the others. In effect, one might say that there is no loss of relative deixis, but at least some loss of absolute deixis– the sequence of events is not construed to be happening over any one period of time. For this reason the Extension stage extends the picture presented of the 'invisible' domain, as well as clearly expressing a temporal sequence of events. More will be said about this in the discussion of the lexicogrammar.

### *9.3.2.2 Dual orientation within the Extension*

Even within the Extension, we find evidence of rhetorical relations that are both internally and externally oriented. A concurrent relation of result and evidence holds between the sections of the text that deal with the actions of the winds and the clause (9.30) that construes the consequent rain-bearing potential of the relevant winds, which is also taken as evidence of the actions of the winds on bodies or collections of water. When Herodotus mentions that not all of the water is dispersed (10.31-33) he

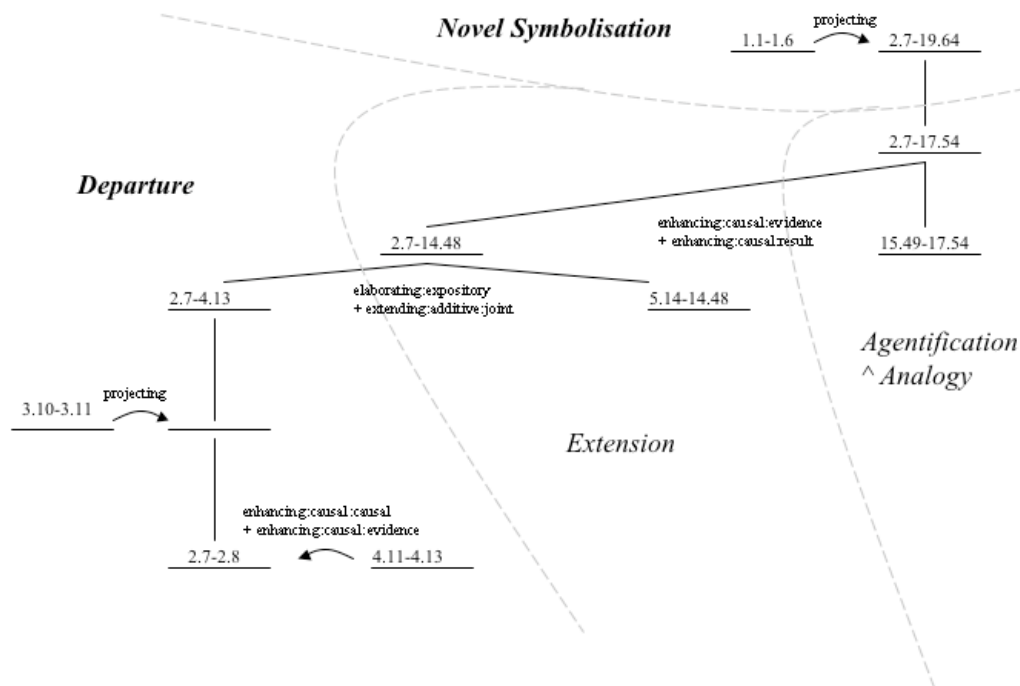
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<sup>323</sup> For this use of the present indicative as involved in expressing a 'general supposition', see Smyth and Messing (1974) p.400-401, 421.

intends this as a concessive qualification to the picture that he has built up previously, but also intends this as an additive extension to the picture.

The dual orientation of these relations is complemented by purely internally, and purely externally, oriented relations in some places, such as antithesis (internal) and summative and elaborating elaboration (external). As with the text of the theory overall, the Extension is initially framed with a projecting relation. Thus, in the Extension overall, there appears to be an alternating or simultaneously operating dual orientation in rhetorical structure, which mirrors the dual orientation at critical junctures in the theory as a whole.

### 9.3.3 Dually oriented rhetorical structure in the other generic stages



**Figure 9-9 Herodotus 2.24-26: Rhetorical structure- Novel Symbolisation ^ Departure**

Rhetorical structures of dual orientation are a significant feature of the other stages. For instance, the major relation at the 'heart' of the Departure is dually oriented to cause and evidence. This is also framed with an initial relation of projection; this feature will be discussed later, in conjunction with the other instances of projection in this text.

In the Agentification, there is also a relation dually oriented to result and justification. It has an important function in this generic stage, because it has a function in linking theory to the observed phenomena, by justifying the construal of the theory, and establishing a causal relationship between theory and phenomenon.

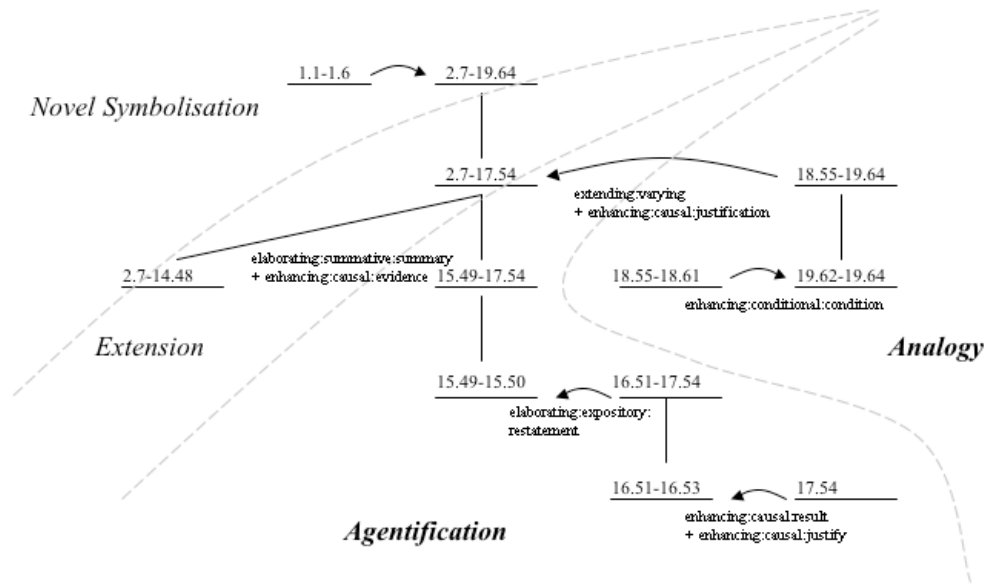


Figure 9-10 Herodotus 2.24-26: Rhetorical structure- Agentification

^ Analogy

### 9.3.4 Duality and fractality: overall patterns of rhetorical structure

Two overall 'themes' emerge in the rhetorical structure of Herodotus' theory of the Nile– duality and fractality. Each of these will be described in turn, and their significance for the theory-building in this text explained. The dual orientation of many of the rhetorical relations in this text has been already noted, and so we may say that it is a prominent, recurring feature of this text. Given that we have seen an agnate phenomenon in the conscious reflection in Homer, we can also say that this duality has an important role in providing a rational, conscious reflection on a certain segment of the experienced world.

### *9.3.4.1 Duality of rhetorical relations*

This duality between internal and external orientation is recurrent throughout the text, and occurs at important 'bridges' within it. It underlies much of the rhetorical interrelation between the generic stages, and so supports most of the structure of the explanatory theory and its relationship to the phenomenon it is supposed to explain. It also occurs in the major rhetorical relations within each of the generic stages. An important feature to note about this duality of orientation is that it often occurs within the same kind of expansion type– for instance, there is often a duality between cause and evidence, which are both types of causal enhancement, but with external and internal orientation respectively. This has the effect of combining interpersonal and ideational strategies in a relatively seamless manner.

#### **9.3.4.1.1 Consequence (1): co-modelling of ideational and interpersonal strategies and its relationship to Field**

This duality also has the effect of co-modelling these ideational and interpersonal strategies. In other words, the ideational picture presented in the theory in this text is modelled on the interpersonal moves that are made, and, in a reciprocal fashion, the interpersonal selections in the rhetorical structure follow the ideational model presented in the theory. This has the effect of making any argument presented appear as if it is part of the reality that is being ideationally construed.

This duality is a function of the Field of this passage. Rhetorical structure answers most directly to the configuration of the context of situation, and in particular the Mode<sup>324</sup>. This is because rhetorical relations are responsible at the semantic stratum for realising the overall manner of unfolding a text. In this case, it is responsible for unfolding both a particular method of argument and a particular complex construal of

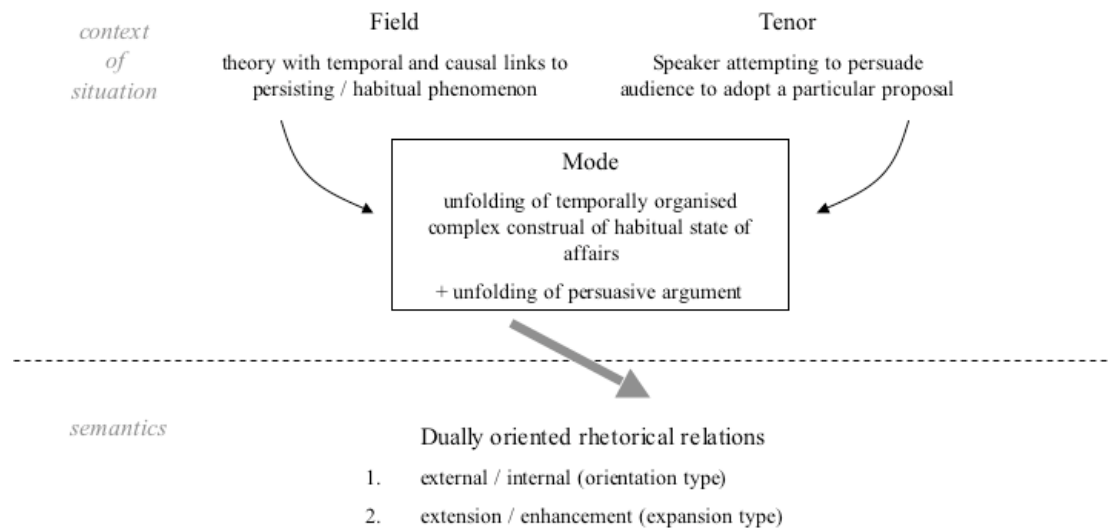
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<sup>324</sup> See Butt and Matthiessen (draft, 2000) p.253-260.

the 'invisible' events that are thought to underlie the behaviour of the Nile. The choice of rhetorical relations in this passage tightly links and coordinates these two activities with each other. The degree of linkage and coordination is to an extent where these two processes are in effect co-modelled. This is in contrast to the situation where the dual functions of constructing an argument and presenting a 'picture of reality' are realised by an *alternation*, rather than co-occurrence or co-deployment, of external and internal rhetorical relations.

#### 9.3.4.1.2 Consequence (2): construction of habitual events and an overall scene through dual expansion types

Duality can also be found in the co-realisation of different kinds of expanding rhetorical relations. In particular, there is a co-deployment of additive extension and temporal enhancement. As a result, the ideational picture that is built during the Departure and Extension, when viewed from 'outside'– that is, with reference to the communicative situation between Herodotus and his audience– is extended, but when considered 'from within'– from the perspective of a particular construal of reality being built up– an enhancing temporal sequence of ongoing, habitual events is constructed. In many ways, this simultaneous deployment of extension and enhancement straddles the divide between narrative unfolding and static depiction.



**Figure 9-11 Duality of orientation and expansion type in Herodotus 2.24-26**

#### 9.3.4.2 Fractality of semantic configuration of the text

There is a certain degree of 'fractality' involved in the internal rhetorical configuration of each generic stage, as compared to the rhetorical structure of the text as a whole. The notion of fractal organisation is used to describe a recurring principle of systemic organisation at different linguistic levels or strata. An example of this is the systemic contrast between projection and expansion, and between different expansion types, at the level of the clause (types of Circumstance), the clause complex, and the sequence at the semantic stratum (logico-semantic types)<sup>325</sup>. Because rhetorical relations can be characterised in terms of expansion and projection, and in terms of the same kinds

<sup>325</sup> This is more precisely described as 'fractal agnation' in Halliday and Matthiessen (1999) p.222-224.



of expansion, we may also view this as being 'fractally agnate' to the same kind of organisation found in the above semantic and lexicogrammatical systems.

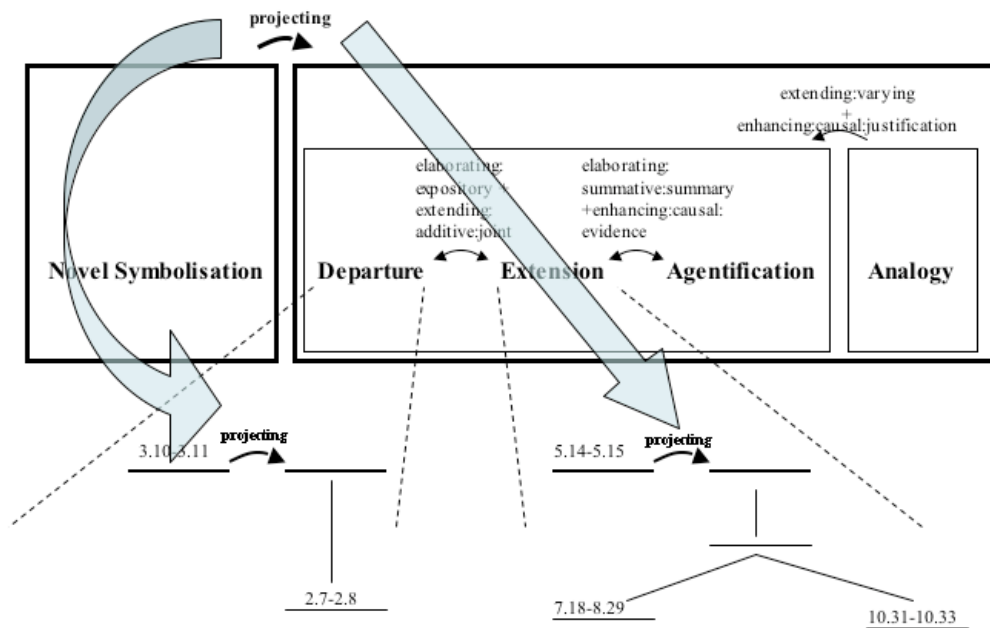
#### 9.3.4.2.1 The fractality of projection

In this text, we have a similar kind of fractal organisation, where the rhetorical relation between Novel Symbolisation and the other stages of the text provides a 'projecting framework' for the rest of the theory. In other words, the unfolding of the theory as a whole takes place as a text entity being projected from the Novel Symbolisation. However, when one looks at the rhetorical structure internal to each generic stage, a similar organisation occurs in the Departure and Extension, where a projecting relation frames the particular part of the theory contained in each of these stages. In effect, we have a recurring relational semantic structure at different levels within the relational structure of the text as a whole. Thus there is a kind of fractality of rhetorical organisation of this text, though it differs slightly from the usual notion of fractality in two ways. Firstly, the fractality is 'inter-level' within the semantic stratum, rather than interstratal. Secondly, the fractality is not one of systemic organisation *per se*, but one of choices from the same system of rhetorical relations made at different levels within the rhetorical structure.

#### 9.3.4.2.2 The motif of projection and its relationship to the context of situation

The significance of this is that the process of overt symbolisation, mediated through the rhetorical choice of projection and subsequent expansion within the 'projected' part of the text, is a pervasive feature of the theory being built. This has a crucial function in realising certain important aspects of the context of situation. Herodotus is dealing with a state of affairs about the Nile that is subject to discussion and debate, and with an audience that has at least the potential to call his theory into question. In terms of Mode, he has to combine the ideation of the theory and an overall persuasive

strategy. At the semantic stratum, and at the level of its relational organisation, this is realised by a 'rhetorical structure motif' of projection directed to the audience, and the development of the theory that explains the state of affairs within what is projected. Thus overt symbolisation– mediated through the choice of projection in this 'motif'– is a means of realising the 'persuasive construal' that is at the heart of theory-making.



**Figure 9-12 The fractality of overt symbolisation in Herodotus 2.24-26**

## **CHAPTER 10**

### **Modelling by analogy to experience and text: the lexicogrammar of Herodotus' theory of the Nile**

When considering the clausal semantics and lexicogrammar of Herodotus' account, a consistent experiential grammar of spatial movement predominates in the stages of Departure and Extension. This is in effect a transference of pre-existing lexicogrammatical resources to a relatively 'invisible' domain of experience, so that the 'unknown' is construed in the same terms as what is already 'known'. The effect of this is to model an 'invisible domain' by analogy to the lexicogrammar used to model the visible. The relatively rich resources associated with the construal of spatial movement allow for relatively 'free' extension of the theoretical model, and underlies the function of the Extension stage of the theory. The relative profusion of resources already available ensures that this model is relatively 'open-ended'; this, in combination with the relatively overt internal orientation of the rhetorical structure of the account, invites the audience that engages with the text to further develop and engage with the model that is already presented.

Analogous to the rhetorical structure, some of the clause complexing relations have a concurrent dual orientation to both temporal and causal sequence, thus reflecting the close coordination between the 'internal' and external' functions of the text at the lexicogrammatical level. Logogenetic metaphorical processes are instrumental for the function of the Agentification in overtly construing agency in the theory. Such metaphor also underlies the anaphora in the account, which has the effect of 'experientialising' much of the text of the account, and thus contributing to the impression that it directly reflects the happenings of the real world, particularly through the use of relational processes. As a consequence, there is a 'blurring' of the boundary between discourse and the 'real world', which has the effect of legitimising discourse as being a valid tool for the investigation of reality. This evidence from the

lexicogrammar of the account supports the proposition that events are modelled by analogy and the functional equivalence in the culture of theorising discourse, the reasoning it embodies, and perception of the experienced world.

## 10.1 Symbolising events and processes

Symbolising events, realised congruently as symbolising mental and verbal processes, underlie the function of those sections of the theory, particularly the Novel Symbolisation, that explicitly draws the audience's attention to the author's act of putting the invisible into symbolic existence. Mental and verbal processes capable of projection predominate in this stage of the theory, and thus realise the function of this stage of signalling to the audience the author's symbolising activity.

### 10.1.1 The relative absence of interpersonal grammatical metaphor

Mental processes also play a particular role in introducing certain propositions in the Extension, Agentification and Analogy (clauses 31, 49, 63). It is proposed here that these congruently realise mental Events. In English, analogous constructions can be interpreted as a metaphorical ideational realisation of modality— what is often termed 'interpersonal grammatical metaphor'— where speaker comments on the likelihood or necessity of a proposition are metaphorically realised in the lexicogrammar as mental cognitive processes with projection of the proposition<sup>326</sup>. However, this kind of metaphor is relatively unknown in Greek— the only possible exception being the use of 'impersonal constructions' such as *dei* and *khrê* 'it is necessary', and *exesti* and *hoïon te esti* 'it is possible', with a projected clause, analogous in grammatical construction to *il (te) faut* in French<sup>327</sup>. It is also possible to have such projecting

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<sup>326</sup> For this, see Martin (1992) p.412-413, Halliday (1994) p.354-355, Halliday and Matthiessen (1999) p.583-584 and Butt, Fahey et al. (2000) p.116.

<sup>327</sup> See Smyth and Messing (1974) p.260, 401, 441-442, 520-521.

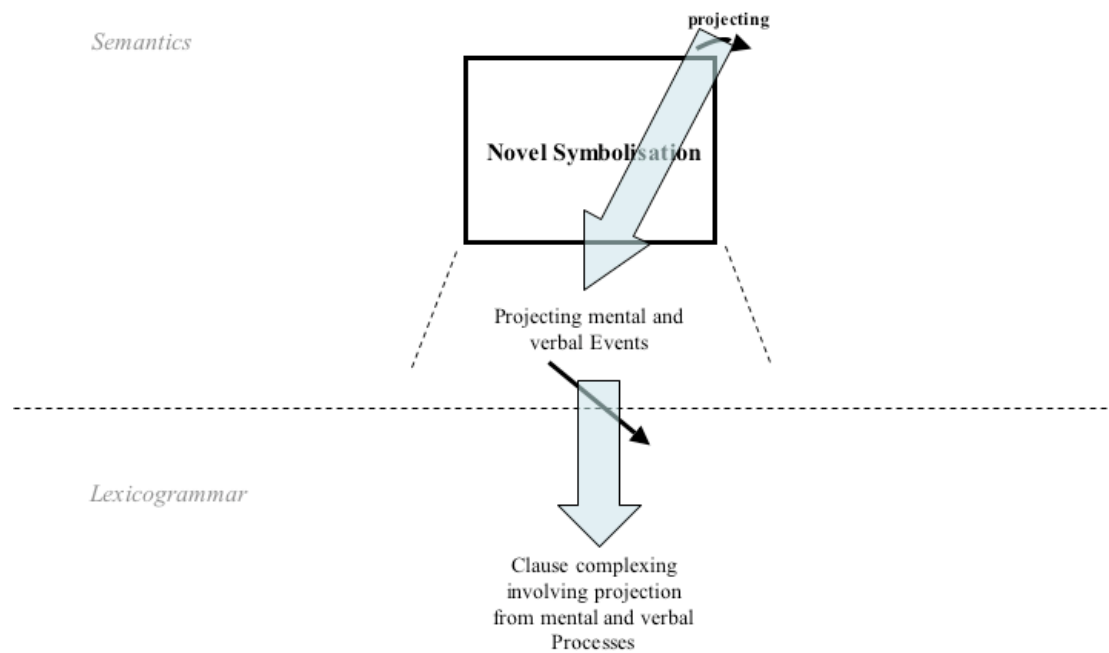
impersonal constructions with mental perceptive processes such as *phainetai* and *dokei* 'it seems', the latter of which is used in clause 31. Nevertheless, these particular mental perceptive processes are used to construe a decision made by somebody, or the formation of an evaluative opinion that has the potential to lead to a decision to perform an action.

Herodotus 6.22

*edokēe* de <<meta tēn naumakhīēn autika bouleüomenoisi>> || ... es apoikīēn ekplōein

<<After deliberating straight after the sea battle>>, *it seemed to the Samians (ie. the Samians decided)* || to sail off to a colony...

However, neither examples such as these, nor mental cognitive process in general in Greek, fulfil this function of expressing meanings agnate to those expressed by elements of modality in the clause, such as modal particles or the subjunctive or optative inflections of verbal forms. Thus, the use of these projecting mental cognitive processes in this account from Herodotus is not agnate to that of modality, but represents 'true' overt symbolisation and projection, and as such refers directly to Herodotus' act of exposition of his theory to his audience. Interpreted in this way, these mental processes are a 'fractal' manifestation in the lexicogrammar of the motif of overt symbolisation and projection carried through each stage of the theory. It follows that the lexicogrammatical categories in this case are informed by the discourse semantic categories of the text in which the clauses are located.



**Figure 10-1 The fractality of semantic symbolisation and lexicogrammatical projection**

## 10.2 The invisible in terms of the visible: the lexicogrammatical model of spatial movement

In the Extension stage of his account, Herodotus provides his account of the relatively 'invisible' state of affairs that he believes underlies the Nile's 'contrary' behaviour. As he implies in the Extension, and says explicitly in the Agentification, the variable seasonal movement of the sun, and its attendant effect on water distribution, constitute the events of this 'invisible' realm that cause and explain what is observed.

Theoretically, the choice of what clausally-oriented semantics and lexicogrammar is used to construe these events is open; Herodotus is theoretically free to choose whatever kinds of semantic and lexicogrammatical resources he feels is appropriate.

The stage of Novel Symbolisation has established to the audience that the author is about to engage in a novel kind of semiosis, and thus in a certain sense the audience does not expect that Herodotus is going to be bound to a particular construal in advance. This is especially so, given that he has refuted the theories of others on the same subject– that is, he has rejected at least some of the kinds of semantic and lexicogrammatical construal offered by others as a realisation of a Field agnate to that of Herodotus' account.

### **10.2.1 An answer framed in terms of the question: the predisposition to construe in terms of spatial movement**

However, two factors predispose Herodotus to adopt a construal of these events in terms of the clausal semantics and lexicogrammar of material movement in space and time. The first is that his competitors' theories are framed (by Herodotus at least) in such terms, as shown by his paraphrasing of their views:

Herodotus 2.20

tôn hê heterê men legei || tous etêsias anemous einai aitïous ||[plêthûein ton potamon]],  
|| kôlûontas <<es thalassan ekrhêein>> ton Neilon. |||

The other (of these theories) says || that the Etesian winds are responsible for the river flooding, ||  
because they prevent the Nile <<from flowing into the sea>>.

tous etêsias anemous	einai	aitïous [[plêthüein ton potamon]]
Carrier	Process: relational: intensive + ascriptive	Attribute (with embedded Process: material: doing: dispositive)

ton Neilon	kôlûontas
Goal / Medium	Material: doing: dispositive + effective

es thalassan	ekrhëein
Circumstance: spatial: location	Process: material: doing: dispositive + middle (with implied Medium)

#### Herodotus 2.21

... legei || apo tou Ôkëanou rhëonta || auton tauta mêkhanasthai, || ton de Ôkëanon gên peri pasan rhëein. |||

(the less believable theory) says || that it causes these things to happen || by flowing from the Ocean, || and that the Ocean flows all around the earth. |||

apo tou Ôkëanou	rhëonta
Circumstance: spatial: location	Process: material: doing: dispositive + middle

auton	tauta	mêkhanasthai
Actor / Agent	Medium / Range	Process: material: doing: dispositive + middle

ton de Ôkëanon	gên peri pasan	rhëein
Actor / Medium	Circumstance: spatial:	Process: material: doing:



	extent	dispositive + middle
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Herodotus 2.22

legei gar dê oud' hautê ouden, || phamenê || ton Neilon rhêein apo [[têkomenês khïonons]], || hos rhêei men ek Libûês dia mesôn Aithïopôn, || ekdidoi es Aiguptïon. |||

(this theory) says nothing like this, || when it says || that the Nile flows from [[melting snow]], and how it flows from Libya through the middle of Ethiopia, || and passes on to Egypt. |||

ton Neilon	rhêein	apo [[têkomenês khïonons]]
Actor / Medium	Process: material: doing: dispositive + middle	Circumstance: spatial: location <sup>328</sup>

hos	rhêei men	ek Libûês	dia mesôn Aithïopôn
Actor / Medium	Process: material: doing: dispositive + middle	Circumstance: spatial: location	Circumstance: spatial: extent

ekdidoi	es Aiguptïon
Process: material: doing: dispositive + middle	Circumstance: spatial: location

It can be seen from these presentations of these alternative theories that they are construed in terms of material dispositive processes, typically of middle ergativity where the Nile is construed as transitively as Actor, and ergatively as Medium. These

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<sup>328</sup> It is possible to also see this clause element as also having the function of Circumstance: cause, given that this section of the text is involved in alternative *explanatory* theories of the Nile. For this use of prepositional groups governed by the preposition *apo* with the function of construing a Circumstance of cause, see Smyth and Messing (1974) p.373-374.

processes occur in relation to spatial parameters, construed as Circumstances of location. Herodotus' own theory, in order to compete with the others, should construe events in the same experiential terms, and this is apparent in the theory that he subsequently unfolds. So the lexicogrammatical selections that Herodotus makes in the construction of his own theory are informed by his need to present a theory in relation to other previously construed theories on the Nile.

The second factor that motivates his construal, related to the first factor, is how he experientially frames for himself the question that his theory is supposed to answer.

Herodotus 2.24

phrasô || di' ho ti moi dokëei || plêthüesthai ho Neilos tou therëos. |||

I shall say || why I think (lit. why it seems to me) || the Nile floods during the summer. |||

phrasô
Process: verbal: verbalisation: as locution: (reporting + indicating) + non-receiver + effective

di' ho ti	moi	dokëei
Circumstance: cause	Senser	mental: cognitive + phenomenalisation: hyperphenomenal: metaphenomenal: idea

plêthüesthai	ho Neilos	tou therëos
Process: material: doing: dispositive + middle	Actor / Medium	Circumstance: temporal: extent

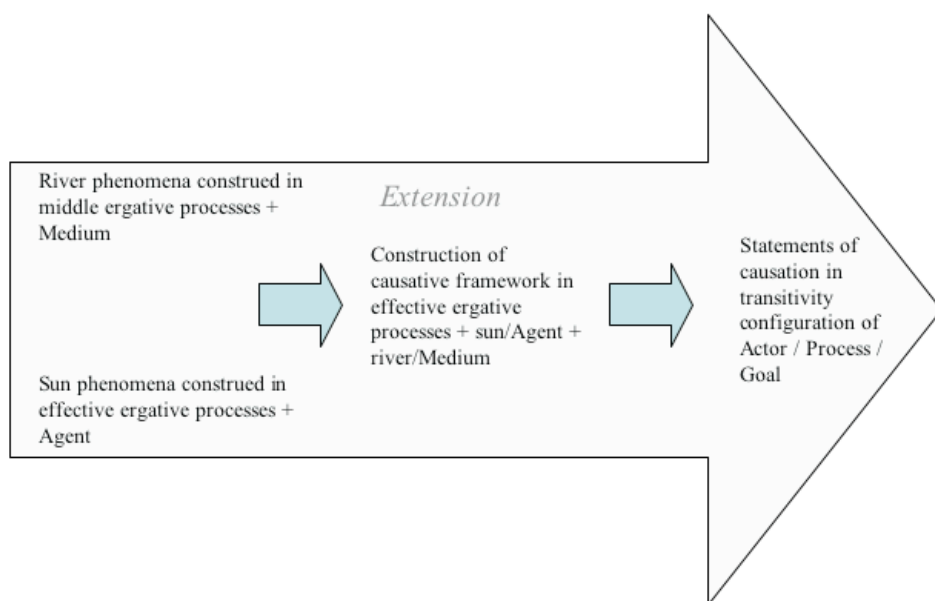
The question that is posed to Herodotus' theory is experientially construed in the same terms as the previous theories put forward (which are also intended to provide an explanatory answer to it). This is especially evident from the selection of Medium with middle Processes and temporal Circumstances which reflects the temporally

enhancing clause complexing of the alternative theories. Thus the theory that follows is 'committed' to a construal in the lexicogrammar which shares the experiential framework of the question and the preceding, refuted, theories. If the realm of the invisible shares the similar selection of lexicogrammatical resources as that of observed phenomena, then this allows for the forging of explanatory links between them.

### **10.2.2 Non-uniform distribution of ergativity selections**

An interesting aspect of the ergativity of the above clauses that represent Herodotus' and others' conception of the problem is that the Nile most often has the function of Medium in the clause. This leaves open the role of Agent. Given that Agent is quite 'nuclear' to ergativity structure of the clause, this 'omission' has an important function in prompting further investigation of the problem, and in particular to determine agentive factors that are operating in the flooding of the Nile. Indeed, Herodotus devotes a whole generic stage to explicitly identifying agency in this theory, and this is no doubt prompted by this 'omission' of Agent in the question that Herodotus poses himself, and which his predecessors have framed for themselves.

During the course of the Extension there is an interesting alternation in the orientation of the ergativity of the material processes. The movement of the sun, and particularly its effects on water, are construed in effective ergativity (clauses 24-29), while the resulting observed phenomena associated with the river are construed in middle ergativity, with the water of the river construed (or implied to be construed) as Medium. Given that the initial question is in middle ergative terms, there appears to be a pattern where the notion of the agency of the sun is built up through effective ergative processes, and that this agency concerns the observed phenomena, the construal of which in middle ergative terms allows for an Agent to be proposed by the author or audience. The distribution of effective ergative processes is important for the function of the Agentification, as further discussion will show.



**Figure 10-2 Covert construction of causative model in the Extension**

### 10.2.3 Metaphoric transformation of ergativity to transitivity selections

There appears to be a reasonably consistent pattern of the water of rivers being construed as Medium throughout much of the Extension. One important feature, also relevant to the function of the subsequent Agentification, is that a certain kind of metaphorisation occurs in the Extension. Essentially, this is a metaphorical construal of a middle ergative structure as a configuration in transitivity. Towards the end of the Extension, the Nile and other rivers (essentially bodies or collections of river water, previously construed as Medium) is then construed as Goal in effective processes (clauses 42 and 45). This appears to be an important step in excluding any observable part of rivers or water from an agentive role, because the logogenetically metaphorical construal of them as Goal makes more explicit what 'originates' the

Process in the clause (Actor) and what is affected by it (Goal). The processes involved in the subsequent stage of Agentification that follows further reconstrue this transitive structure, as will be shown in the discussion of relational processes.

The other important point to note about the presence of material processes is that there is a relatively rich set of lexicogrammatical resources to construe phenomena through them in a quite detailed way, with important consequences for the way in which the theory can become an extended model of reality. As we have seen, there is scope in Greek, used in this passage, to construe material events of both middle or effective ergativity, as is the case in English. The systems of transitivity and ergativity are used in order to covertly construct agency.

#### **10.2.4 Previously established spatiotemporal construal of phenomena in the sky**

The particular kind of material dispositive process used to construe events in the Extension is that of spatial movement, either of the Actor or of a Goal. This is not only a function of the type of verbs used, such as *diexiôn* 'going through' (clause 21) and *apôthēei* 'it pushes (it) away' (clause 26), but also its collocation with Circumstances of location and extent, in both temporal and spatial dimensions. Thus a consistent model of the actions of the sun and its effect on water is set up, where objects are thought to move in space and with respect to time, in particular in the sequence of events in the Extension. As mentioned before, this is the same kind of model as used in the other theories that Herodotus dismisses. We can only speculate as to how this lexicogrammatical model of experience came to be applied to the movements of the sun and water. Presumably, it was first noticed that the position of the sun changed with time, and that these positions had seasonal variation, and then the previously established lexicogrammar to do with the movement of other perceptually stable objects was applied to the sun. This is obviously a development that happened early in Greek, as the following line from Homer shows, where meteorological phenomena are construed in the same terms:

Homer *Iliad* 16.364-366

hôs d' hot' ap' Oulumpou nephos erkhetai ouranon eisô aitheros ek dïes, || hote te Zeus  
lailapa teinêi, || hôs tôn ek nêôn geneto iakhê te phobos te... ||

Just as when a cloud comes from Olympus into the sky from the divine upper air, || when Zeus spreads  
out a storm, || just so clamour and fear came from the ships...

ap' Oulumpou	nephos	erkhetai	ouranon eisô	aitheros ek dïes
Circumstance: spatial: location	Actor / Medium	Process: material: dispositive + middle	Circumstance: spatial: location	Circumstance: spatial: location

Thus we may safely say that the way of construing phenomena observed in the sky has been long codified in the lexicogrammar of Greek, and long before Herodotus writes his theory. Thus we do not have any definite evidence that this particular lexicogrammatical model has been transferred metaphorically from a separate domain of experience to those events associated with the sun and its effect on rivers. It may turn out that this is true, but there is no evidence in Greek as we have it to support this claim.

### 10.2.5 Modelling the invisible in terms of the visible: its relationship to dialogic engagement with the theory

However, an important effect of this kind of construal in material terms, and in terms of movement in space over time, is that what is in the invisible domain is construed as if it were visible. The underlying assumption about material events, such as those

used in this text, is that they are subject to observation; evidence for this can be found in the way that material events can be construed in clauses that are projected from perceptive mental clauses, not just in Greek but also in other IE languages. In Greek, clauses with mental processes of perception usually take an 'accusative and participle construction' which either functions as a 'macrophenomenon' which may be interpreted as being an embedded clause, or as a ranking projected clause<sup>329</sup>. In addition, such mental perceptive processes can project in exactly the same way as cognitive mental and verbal processes, the projected clause containing a 'projecting conjunction' such as *hoti* or *hôs* 'that'.

This use of material processes to describe the 'invisible' has two important consequences. Firstly, it gives Herodotus leverage in arguing for his theory because the facts of the theory are construed to have a 'concrete' status. This is an important means in realising the persuasive strategy of the text. Secondly, it suggests that the theory can potentially be verified by observation by his audience if they choose to do so. Thus, the 'material model' invites the audience to engage with it, which has the potential to result in further text by others in response to the model, or either verify or dispute it. Thus using material processes to model the 'invisible' encourages the audience to adopt the particular model that he proposes, and to talk and think in the same terms as the model, and thus propagate the kind of textual and cultural activity in which he engages. In short, the lexicogrammatical patterns adopted are a major factor in establishing and furthering a particular form of culture, that of conscious reflection and theorisation.

### **10.3 The creation of semiotic space: lexicogrammar and extension of the theory**

As discussed before, the lexicogrammatical configuration used in the theory is one of a set of spatial movements oriented to a temporal sequence. The resources of

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<sup>329</sup> See Smyth and Messing (1974) p.471-472.

lexicogrammar for this are quite extensive, and this richness of resources is one of the major 'engines' that drives an active extension of the theoretical model, and is a major difference between Herodotus' explanation and the Homeric simile or conscious reflection. In addition, the lexicogrammar is used to create 'semiotic space' in the same way as 'material space' is construed.

### 10.3.1 Circumstance, Range and space

As has also been discussed before, extensive use of Circumstances of spatial and temporal extent and duration is apparent in the material processes of many of the clauses that construe the actions of the sun and water. This is complemented by the use of Range in some of the clauses. In this text, Range typically construes large spatial areas in which movement occurs; this is either the sky (which is thought to cover over the entire known world) or general geographical regions such as Libya or Europe, over which and in which the sun is construed to have a seasonally variable trajectory. Spatial movement within these large regions is typically construed in association with Circumstance of spatial location and extent. Hence there appears to be a consistent relationship between what is construed through the category Range and through spatially-oriented Circumstances.

### 10.3.2 Range in the creation of 'semiotic space'

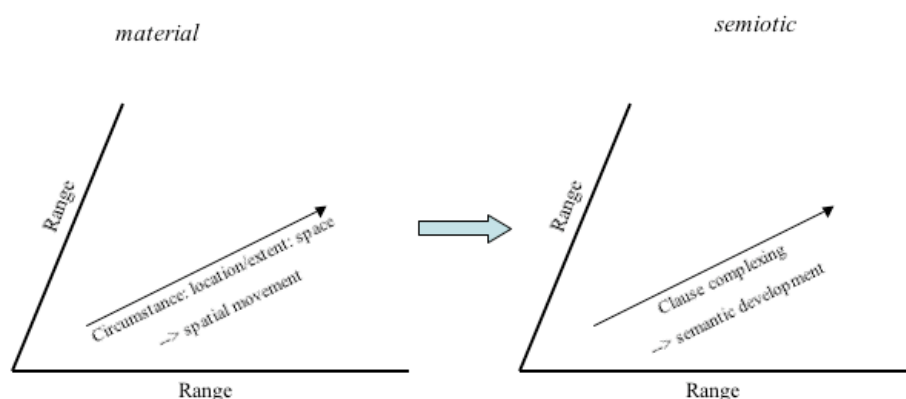
In two places (clauses 17 and 22), Range has a role in experientially managing the information contained in the Extension. This occurs in association with a Process *poiëō* 'do, act, make'— in effect a quite non-specific material dispositive process<sup>330</sup>. These Ranges, which refer cataphorically, are reconstrued in more experiential detail in the subsequent text, where the actual details of the theory in the Extension are explicated. In effect, the function of these Ranges is to create 'semiotic space' which

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<sup>330</sup> This is quite distinct from the English verb *do*, which can be used to construe material creative processes, such as *make* (Process: material: creative) *a sculpture* (Goal). See Matthiessen (1995) p.242-243.



the subsequent text articulates. As such, Range tends to be a 'fractal manifestation' of the projecting function of these stages within the Extension<sup>331</sup>. Information in the theory is thus handled through the experiential resources of the lexicogrammar. This may be responsible for, and a function of, the degree of 'consciousness' and 'foregrounding' in the act of imparting information to the audience.



**Figure 10-3 Semiotic space modelled on material space**

Thus, the lexicogrammatical configuration of material processes oriented to space and time play a major role in allowing a relatively 'free' extension of the theoretical model, relatively independent of the observed phenomena to be explained. Firstly, the very diversity of lexicogrammatical roles associated with spatial movement provides the potential for the model to be extended in many directions, either by

<sup>331</sup> A related phenomenon is the notion of the functional relationship between Process and Range (such as in the English *sing* (Process) *an aria* (Range) ) characterised as elaborating expansion. See Matthiessen (1995) p.332-333.

Herodotus or by his audience if they choose to do so, and to do so in whatever level of detail is deemed appropriate. Secondly, it also becomes a means of experientially managing the information flow of the text, creating semiotic space into which the theory can be extended, and foregrounding the activity of constructing such information.

## **10.4 Engagement with reality: the co-modelling of cause and time in clause complexing**

At the level of the rhetorical structure of this text, the duality of the orientation of the relations has already been explained. At the level of clause complexing in this text—and the lexicogrammatical resources used to construe them—such duality also occurs, although in two different directions, that of time and cause. This is an expression in the lexicogrammar of the merging of the functions of construing the invisible in terms of the materially visible with a persuasive strategy that is intended to prompt the audience to both adopt the theoretical model and also to react to it.

### **10.4.1 Contextually-dependent specification of clause complexing type**

The use of a clause with a participle that is hypotactically dependent on a clause with a finite verbal form is well known in Greek. Not only is this kind of clause complexing used to construe temporal or causal complexes, but also other types of enhancement such as manner, means, condition, concession and purpose<sup>332</sup>. Various kinds of conjunctions can be used in the clauses of the hypotactically dependent participial clause to specify the kind of enhancing complex, such as the use of *hōs*

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<sup>332</sup> See Smyth and Messing (1974) p.456-459. This includes the constructions known as the 'genitive absolute' and the 'accusative absolute', which are essentially variants of the hypotactically dependent participial clause but which are configured with participants that are not present in the main clause. See *ibid.*, p.459-462.

with the participle to denote cause or purpose<sup>333</sup>. However, such participial clauses can be (and often are) used without any sort of conjunction. The consequence of this is that many instances of this kind of complexing are 'ambiguous' with respect to the enhancement type they construe, and this 'ambiguity' has long been noted, as this comment from Smyth shows<sup>334</sup>:

The force of these circumstantial participles does not lie in the participle itself, but is derived from the context. Unless attended by some modifying adverb, the context often does not decide whether the participle has a temporal, a causal, a conditional, a concessive force, etc.; and some participles may be referred to more than one of the above classes.

Smyth has correctly identified context as crucial to the interpretation of many these kinds of enhancing complexes. He does not specify precisely what this 'context' is, but he may be safely interpreted as referring to the semantic environment created by the text in which these complexes occur. Even so, he identifies some 'ambiguity' in the enhancement type in many of these hypotactic clause complexing relations, and that this has some relation to the semantic environment of the text in which they occur.

#### **10.4.2 The foregrounding of cause: duality and metaphorical construals**

Taking this into account, many of the enhancing complexes in this text have a dual orientation to temporal and causal relations. Clause complex 11 in this text, describing the return of the sun to its summer course in the sky, consists of a complex of enhancing temporal relations. However, these events are not only seen in a temporal sequence, but also as being causally linked, where a successive event is thought to follow on causally from a previous event. The reason why this can be interpreted as causal complexing is because of the construal of the attractive force that the sun has on water in a river in clause complex 8, as a sequence of drawing water,

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<sup>333</sup> *ibid.*, p.462-465.

<sup>334</sup> *ibid.*, p.459.

then pushing it towards a geographical area. This sequence of attracting water, then pushing it towards a particular area is metaphorically reconstrued (in logogenetic terms) within one clause (11.36) as providing an attracting force on rivers, which are essentially bodies of water with geographical configurations and boundaries. This is turn is complexed with a clause that construes the movement of the sun in terms of spatial movement within the sky (11.35). This repackaging and reconstrual underlies the causal force of the temporal complex in clause complex 11, and so the deployment of lexicogrammatical metaphor within the text enables this duality to occur. Thus this kind of complexing collocates with the metaphorisation of ergative selections into transitive ones, which foregrounds the construction of Agency.

### 10.4.3 Duality and generic stage

In the Analogy stage of the text, a similar duality occurs between temporal and causal enhancement, particularly in the complexing relation between 18.60 and 18.61. We have temporal complexes in this instance, but these can be also seen as causal relations. Clauses 18.60-18.61 realise the same kinds of events and sequences as in the Departure (2.7-2.8), and thus restates the experiential model employed earlier in the text. But because the Departure has the function of providing an ideational *précis* of the theory as a whole, in the Analogy the same model is used as the causal principle for why the sun moves through the upper part of Libya up into Europe. Thus this duality occurs in the environment of the roles of each of the generic stages.

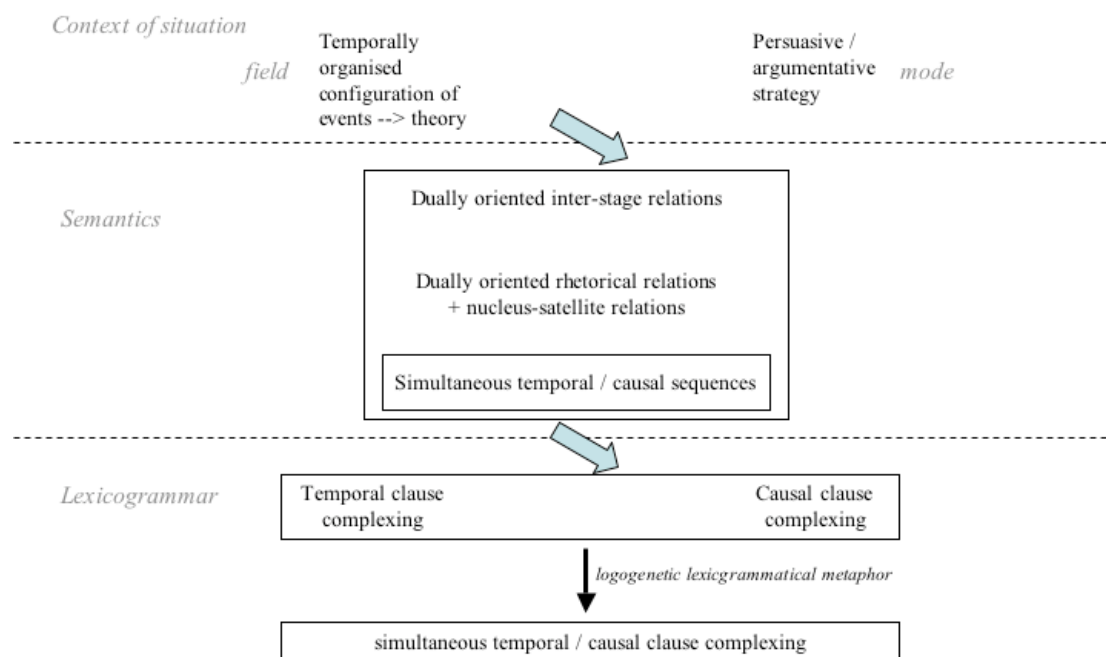
### 10.4.4 More meanings with fewer resources: duality and relational semantic text structure

The significant temporal clause complexing in clause complex 12, construing the behaviour of other rivers apart from the Nile within the Extension, is also oriented to causation. The clause is related to the rest of the Extension by a relationship of antithesis. The Extension essentially aims to give an account of the invisible to

explain the visible behaviour of the Nile; therefore in order to provide a full antithesis between other rivers and the Nile, as clause complex 12 does, it also must provide both observation of other rivers and by what it is caused. This complex, in terms of rhetorical structure, lies in a satellite relationship to one of the nuclear elements of the Extension. Because of the satellite nature of clause complex 12, there is significant pressure to construe in the lexicogrammar both observation and cause with the least resources, and one effect of this is to simultaneously deploy both causal and temporal enhancement through the same wording in each of the clauses. Thus the dual orientation of the enhancing complexing is also a function of the degree of nuclearity or peripherality of the clause complex in question.

#### **10.4.5 The 'grammaticalisation' of duality in clause complexing relations**

Therefore, this 'ambiguity'— properly seen as 'duality'— is due to the function of the generic stage in which it is located, and the rhetorical relation that clause complex has with other clause complexes. We may then suspect that such duality in the clause complexing is a realisation of these factors in the overall semantic organisation of the text, and thus reflects the need to simultaneously provide an ideational picture of the invisible, and to persuade an audience to adopt and / or react to that construal. We have seen this is in the duality of rhetorical structure orientation. In this text, there is also evidence that such duality and simultaneity is now 'grammaticalised' in the established resources of clause complexing employed to realise hypotactic enhancement.



**Figure 10-4** The duality cause and time in sequence and clause complexing, and its realisation of the context of situation and relational semantic structure

#### 10.4.6 Causes are actionable: duality in the environment of simultaneous construal and persuasion

In addition, it may be helpful to propose that the notion of causation in a given text is intrinsically linked to promoting a reaction of some kind to that text. Causation (and its corollary, result) becomes important when an audience wants to intervene or react in some way in the state of affairs that is being ideationally construed in a text. Highlighting elements, figures or sequences as causative in a given ideational construal of a state of affairs is in part intended to move the audience to focus attention on those 'segments of reality' to which the 'causative sections' of the text refer in the text's context of creation. This is reflected in the adjective used in Greek to identify causative elements—*aitios* 'responsible'—used in this text (clauses 15.50,

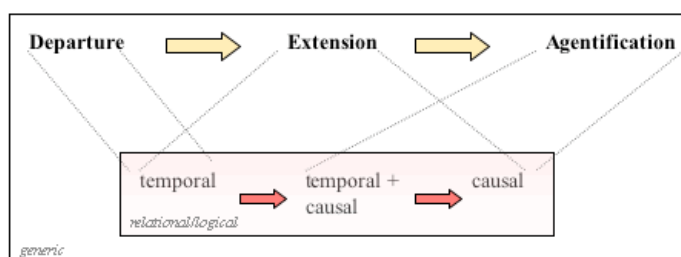
16.51), but originally deriving from its original sense of 'the guilty party' in Greek legal, oratorical and political discourse. Reaction to these segments identified as 'responsible' in a text, such as Herodotus' account of the Nile, may be material, semiotic or both— such as, perhaps, going to Egypt to check the seasonal path of the sun in that part of the world and other information, such as rainfall distribution and the seasonal level of the Nile's tributaries, and the like. However, the intended reaction may 'simply' be semiotic— to prompt engagement with the theory presented, in order to mount further supporting or refuting argument, or to simply signal to the audience that they are the appropriate points in the theory on which to focus one's conscious reflection. Thus the notion of causation acts in concert with the considerable lexicogrammatical resources deployed to construe the invisible to provide considerable motivation and scope to engage, extend and modify the theory that Herodotus presents. Thus, the lexicogrammatical realisation of the simultaneous construal and persuasion of the text also provides impetus for the propagation of this kind of cultural activity— that of the theorisation of the observed world.

#### **10.4.7 Cause as part of reality: duality within single expansion types and co-modelling**

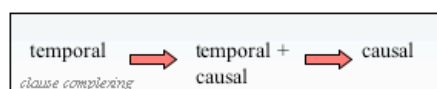
It is temporal sequence and cause that regularly co-occur in these particular enhancing clause complexes. This feature of the lexicogrammar, given that it occurs quite frequently in this text, in Herodotus and in Greek prose generally, is likely to have been established for quite some time before Herodotus wrote. However, one important consequence of this is that temporal and causative complexes are modelled in terms of each other. This statement can be interpreted in one direction as follows: that cause is construed in the same way as is temporal sequence in texts that have a persuasive function. This is a particularly powerful resource, particularly in its function of realising persuasive strategies. It has the effect of making a thread of argument appear like 'reality', thus strengthening the persuasive force of the text. This is because the construal of causation in clause complexes is the same as that for the construal of temporal sequence. Texts may initially use these lexicogrammatical

resources to construe purely temporal sequences— such as the complexing in clauses 8.24-8.27— and then use exactly the same type construction to simultaneously construe causal and temporal sequence, such as in clause complexes 12 and 18 discussed above. The effect of this is to 'surreptitiously' introduce causation into a temporally organised representation of events; the causative framework rides on the back, as it were, of the temporal one. This allows the argument to be built from the construal of events to the point where the author can talk explicitly about causation, independently of the temporal organisation of events, as Herodotus does here in the Agentification, and to make the identification of causation as being 'naturally obvious' from the construal of events so far in the theory.

*Semantics*



*Lexicogrammar*



**Figure 10-5 The drift from temporal organisation to causation**



#### **10.4.8 Time becomes important: the second consequence of co-modelling**

The other important aspect to note is that causation becomes structured in the same way as time is structured in the lexicogrammar. The consequence of this is that, in order to establish causation, one must establish the causative agent or event as being temporally prior to the phenomenon that requires an account of its causation. In this regard, the relationship between time and causation is reciprocal as well; temporally prior events have a higher likelihood of being interpreted, particularly in persuasive texts, of having a causative role in temporally subsequent events. Thus in a sense, time also becomes causally structured. That is, the issue of whether events are construed as being simultaneous, successive, partially overlapping or coterminous becomes the basis for further material or semiotic action by the audience of a text that construes these phenomena. Time sequences are seen in terms of what one should or can do about the events sequenced in this way.

In short, the dual orientation of a significant number of enhancing clause complexes, occurring in the environment of dually oriented rhetorical structure, is a realisation of the dual functions of the text to both simultaneously construe an 'invisible' domain of experience and to persuade the audience to adopt and react to that construal. This is an important 'engine' in the lexicogrammar to provide a 'naturally obvious' account of causation in a text, where causative events are modelled on temporal enhancement, thus facilitating the explicit construal of causation in later parts of the text or in subsequent texts. This has important consequences for both the notions of time and cause. Temporal precedence becomes integral to the establishment of causation, and in turn the temporal organisation of a construed domain of experience becomes important in determining an audience's reaction to the text that construes it.

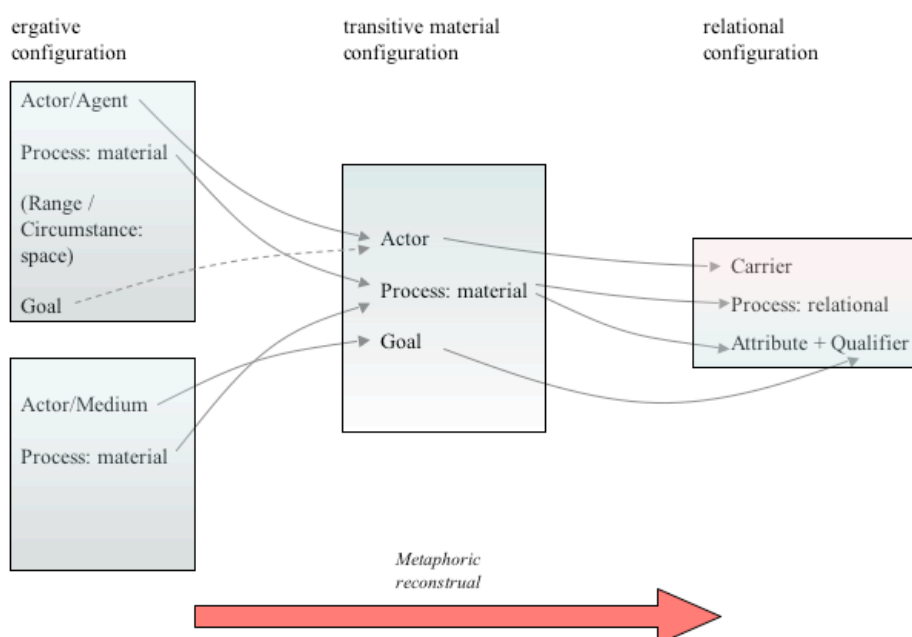
## **10.5 The identification of agency and relational process clustering**

Relational processes occur in selected parts of Herodotus' theory on the Nile. They occur in three different kinds of clustering. Firstly, they play a prominent role in the stage of Agentification to make explicit causative elements of the theory that is presented, and are a lexicogrammatical metaphor of logogenetically prior processes construed in the Extension. Secondly, relational processes tend to co-occur with metaphorical realisations of Herodotus' 'speaker comment' on the likelihood or reasonableness of the propositions in the theory. Thirdly, relational processes also cluster in the Analogy, where Herodotus hypothesises on a geographical transposition to explain how the behaviour of the Danube is similar to that of the Nile. This is related to a phenomenon more generally found throughout the text where the relational processes in a given clause confer a 'reference point' role on that clause in its clause complex, and in the ideational construal in the text as a whole.

### **10.5.1 Logogenetic metaphorisation of transitivity in the Extension**

In the Agentification, intensive ascriptive relational processes dominate, and in particular involve the Attribute *aitios* 'responsible'. This is an explicit construal through the ideational resources of the lexicogrammar of agency in the theory. This is a metaphorical reconstrual of the selections of ergativity, and then transitivity in the Extension. As we have noted before from the Departure and the Extension, in terms of ergative configuration, the sun typically stands in the role of Agent with respect to the role of Medium fulfilled by the river and water. In clauses 24-29, the sun is implied to be both Actor in the construed effective processes, and the river and water Goal. Thus the lexicogrammatical opposition between the sun and the river and / or its water, transforms from one in terms of ergativity (Agent versus Medium) to one in terms of transitivity (Actor versus Goal). The ascriptive relational processes in the Agentification, configured with Carrier and Attribute, are a metaphorical reconstrual

of the configuration of Actor / Agent and material Process in the clauses of the Extension. At the same time, there is also a reconstrual of the processes and their Medium (essentially the behaviour of the river) inherent in the Departure and Extension as a nominal group embedded as a Qualifier of the Attribute. This particular reconstrual is 'syndromic' with the use of relational processes<sup>335</sup>. This Qualifier *toutôn* 'these things' is a demonstrative pronoun which refers anaphorically to the processes of the Departure and Extension; more will be said about this in the following section of this chapter, in relation to its role in 'experientialising' text.



**Figure 10-6 Metaphoric processes from Departure to Agentification**

<sup>335</sup> For the notion of 'syndromes' of grammatical metaphor, where more than one kind of metaphoric reconstrual co-occurs in clauses of a particular text type, see Halliday (1998) p.208-221.

### **10.5.2 'Metareflectivity': changes in direction of textual progression**

This kind of metaphorical reconstrual accords with Halliday's 1998 description of the role of grammatical metaphor in scientific English, and in particular the role of relational processes in reconstruing logogenetically prior processes in a scientific text<sup>336</sup>. However, what can be also emphasised here for Herodotus' theory is that the use of relational processes is instrumental to the functions of the generic stage in which they are located. In the Agentification, they are required for the explicit construal of the relatively 'latent' ergative and transitive choices that were made in the Departure and Extension. This explicit construal is required for a selective interpretation of these processes in terms of agency. In an important sense, this use of grammatical metaphor is intended to be 'metareflective' on the logogenetically prior construal of a phenomenon, and this 'metareflectivity' constitutes the function of the generic stage. Therefore, the metaphor does not only enable the repackaging of information that has been developed in earlier sections of the text. It also pushes the text into a different kind of reasoning about the phenomenon, by shifting from discussion of a series of physical events to a discussion of agency. In other words, a different kind of textual progression takes place. However, the important thing to note is that this difference— at least in part— underlies the different function of the Agentification with respect to the Departure and Extension.

## **10.6 The construal of stable 'background / reference' points through relational processes**

There is also a cluster of relational processes in sections of the text that construe a relatively stable state of affairs which is intended as the background for the non-relational processes construed in clauses complexed with them. The Analogy contains such a cluster, where relational processes are used to construe a 'swapping

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<sup>336</sup> In particular, see Halliday (1998) p.201-202.

around' of geographical features so that they lie in different relative position to each other. These changes in position are then reconstrued in summary by clause 18.59 'if these things are so', which is in a complexing relation of condition to clause 18.60 which leads into a description of the behaviour of the sun under such conditions. These kinds of relational clauses do not necessarily occur in conditional complexes, but in hypotactic enhancement more generally, where the enhancing clauses construe 'background states', such as in clause complex 7. Relational clauses also have a role in construing resultant states, which act as 'endpoints' to a series of construed processes in a clause complex, such as clause 12.43; this is analogous to the way, in the larger scheme of the text, that relational processes are responsible for the reconstrual of logogenetically prior processes. In short, clauses with relational processes act as 'reference points' for a complex of construed processes, and provide framing boundaries for particular segments of the theory in the Extension and Analogy.

### **10.6.1 The analogy with Theme and Rheme: 'reality' given a text-like structure**

It is tempting to speculate that this last use of relational processes is somewhat analogous to the role of Theme in textual progression. In the textual organisation of the clause, viewed in terms of the development of its information, the Theme acts as the 'departure point' for the unfolding of clausal information. It may be possible that the relatively 'stable states' construed by relational processes also provide 'departure points' to which the more dynamic processes construed in the theory are seen in relation. Thus it may be the case that the overall ideational picture presented in the theory seen in its entirety is patterned in a way analogous to information patterning and development in a text. This may provide compelling evidence of how presumably material events are modelled in their organisation with respect to each other in the same way in which text information is organised.

### **10.6.2 Towards a relational model of experience**

Thus relational processes have two quite distinct, but ultimately related roles in this text— to change the line of reasoning in the theory, and to provide reference points for the ideational construal of the theory that Herodotus presents. Both roles appear to be the manifestations of the principles of the semiotic organisation and development of information in a text, applied to both the function of parts of the text vis-à-vis the audience, and to the organisation of the experiential theoretical model. The points made here at first glance may seem to be obvious. Reasoning is quite obviously carried through the method of information development in a text, and any representation of the experienced world only comes about because information is developed in a text to do so. Such a view is implicit in systemic-functional linguistics, where the textual metafunction is seen as the 'enabling' of both the ideational and interpersonal meanings into organised information<sup>337</sup>. However, when looking synoptically at the 'end product' of such construal, and not just following the flow of information from clause to clause, we find that the resulting 'model of reality' has a relational structure, and that this structure is analogous to that of the relation between Theme and Rheme in the textual structure of the clause. Additionally, the presence of relational processes underlies the type of reasoning, and changes the kind of reasoning compared to the Extension by experiential reconstrual. This is the basis for the distinct function that the stage of Agentification has in the text as a whole. In addition, relational processes play an important role in constructing a 'relational model' of experience.

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<sup>337</sup> For this view of the textual metafunction as 'enabling', see Matthiessen (1995) p.531-535.

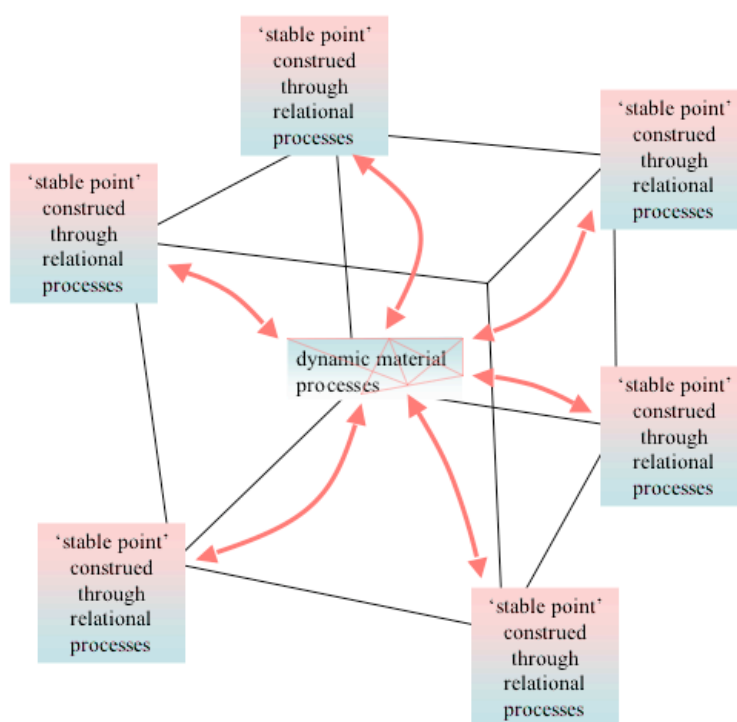


Figure 10-7 Relational processes as stable points in a theory

## 10.7 The equivalence of text and the real world: anaphora and 'text as object'

We have already referred to the identification of agency in the Agentification stage of the theory. In particular, clause 15.50 contains the Attribute *aition* [*toutôn*] 'responsible [for these things]'. The demonstrative pronoun *toutôn* refers anaphorically to the events construed in the Departure and Extension as a whole. This is reflective of an interspersed practice of using pronouns and adverbs that refer to events construed in the surrounding text, such as the use of the 'cataphorically' referring pronoun *tade* in clause 6.17, and the pronoun *tauta* 'these things' that refers anaphorically to the construed processes of the Analogy that describe the transposition of geographical features. Similar in function is the use of a cataphorically referring clause with a relational process and cataphorically referring adverb *hōde* 'in the following way'.

### **10.7.1 The ideational consequences of anaphora and cataphora**

These are essentially a variant of nominalisation, because they reconstrue text one or more clauses long as a single participant in a single clause. They therefore have a function in repackaging information in surrounding discourse to serve as departure points for the further, clause-by-clause, development of information. Thus the function of such devices as used by Herodotus primarily serves a textual function in order to shape the information flow in the text. However, this also has consequences in the ideational aspect of the text. This kind of anaphora and cataphora involves lexicogrammatical metaphor, where a series of processes are reconstrued as a kind of participant (either as part of an Attribute, Carrier, Goal, or as Circumstance: manner) in another clause. Particularly with respect to cataphora, there is a 'reverse engineering' of this metaphorical process, as the text proceeds from the cataphora to the text to which the cataphora refers.

### **10.7.2 Text becomes reality: the potentials of text as participant**

This anaphora and cataphora is initially motivated by textual concerns— that is, they primarily have a function in controlling and directing the flow of information in the text. However, the ideational consequences of this also have a persuasive function in the text, and thus also reflect a dual function of construing the invisible and persuading the audience to adopt or react to the construed experience. Without the anaphoric and cataphoric devices used, the text is primarily seen as the linguistic means by which the phenomenon in question is construed. However, the 'phoric' devices transform by metaphor the text into an experiential object, which can be involved with or without other participants in other clauses. In this way, the text of the theory comes into the same semiotic status as other participants in the clauses. Many of these participants are construed to refer to 'real world' objects, entities and events, and the processes of sections of the theory, reconstrued as an experiential object, have the same potential conferred on them as are conferred on these 'real



world entities'. Like these entities, these 'phoric' entities have the potential to 'initiate' processes via the role of Actor, participate in an Agent / Medium configuration of ergative structure, and can be affected by processes in the role of Goal, or act as Range, or function within a nominal group that functions within a Circumstance.

The overall effect of this anaphora is to make the processes in the text appear as if they are constituents of the 'real world'. Even though we have seen that the semantic organisation of the this text is a product not only of the domain being construed but also of the persuasive strategy that Herodotus adopts, in any case all of these semiotic processes are collapsed down into experiential 'objects' which can participate with other experiential objects. In this way, there is considerable blurring between discourse and the 'real world'. This is also a particularly powerful strategy for persuading an audience to adopt Herodotus' theoretical model and react to it on its own terms, because it creates the 'illusion' that the audience of the text, by engaging with the details of the theory, is also engaging in a direct, unmediated way with the details of the physical world that the text construes.

### **10.7.3 The boundary between text and the 'real world'**

In Herodotus' account, we take the flooding of the Nile in summer, and other associated observable entities, as being the 'real world' phenomena described by Herodotus, for which he puts forward an explanatory theory. At the same time, however, we see his theorisation on the subject as being of a different order to these 'real world' phenomena. This because we see a distinct semantic relation between the theory and the 'real world'— this is revealed in the projecting rhetorical relation found in the Novel Symbolisation stage. However, as shown by the resources of anaphora deployed in this text, the processes and events that constitute the theory become indistinguishable in semiotic status from those that constitute the phenomenon itself.

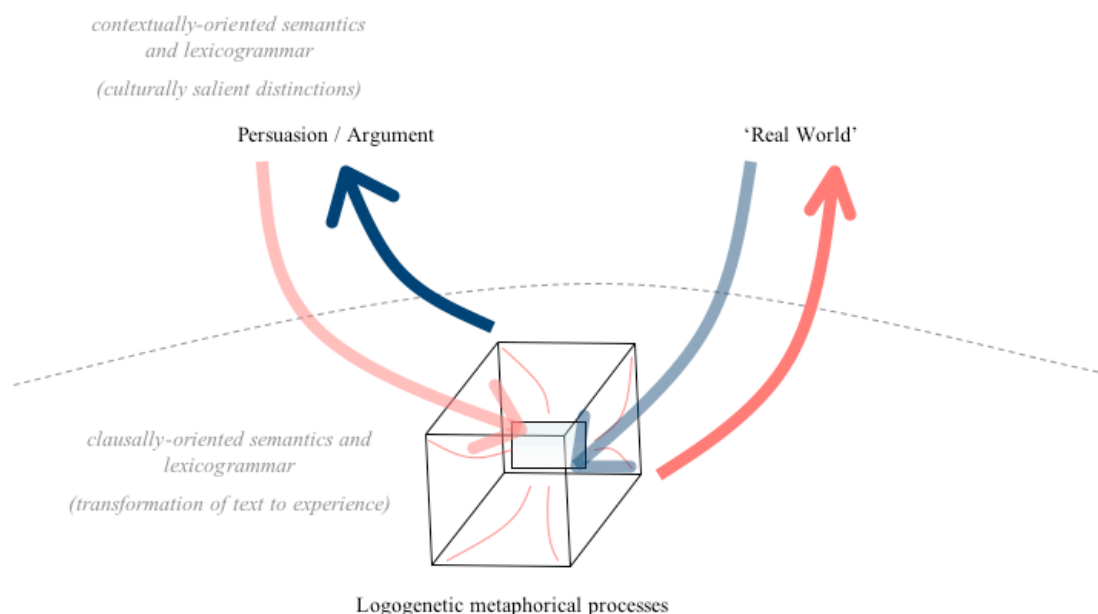
*10.7.3.1 Clause-level cohesive harmony within larger-scale semantic disjunction*

There are a few reasons why this 'blurred boundary' occurs. We have already mentioned the use of anaphora and cataphora in this regard. However, this is part of a syndrome in the lexicogrammar and semantics which takes part in the overall 'cohesive harmony' of the text<sup>338</sup>. The notion of cohesive harmony in a text depends on two factors. Firstly, semantically related lexical items recur from clause to clause in a coherent text. Secondly, these items of lexis are involved in consistent selections in the experiential grammar of the text, and combine with other resources for creating semantic bonds between clauses, such as conjunction and reference, to result in the production of a coherent text.

There is good evidence that such resources that underlie cohesive harmony and coherence are found in this text. Specifically, as has been shown above, the same kind of ergativity and transitivity configuration recurs between the phenomenon to be explained and the theory that is supposed to explain it, and lexical items that are related to the notions of the sun, geographical features, water, rivers, and physical movement are involved in roughly equivalent functions in these grammatical configurations. This rather 'uniform' use of lexicogrammatical resources, sits within, and in some contrast to, the larger-scale semantic organisation of the text, which makes reasonably clear distinctions between articulating the subject of the theory, the theory itself, the identification of agency and to what extent the theory can be generalised.

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<sup>338</sup> For an explanation of cohesive harmony, and how it relates to lexical cohesion, see Flood (1984), especially p.211-218.



**Figure 10-8 Metaphorical transformation within large scale semantic 'disjunction'**

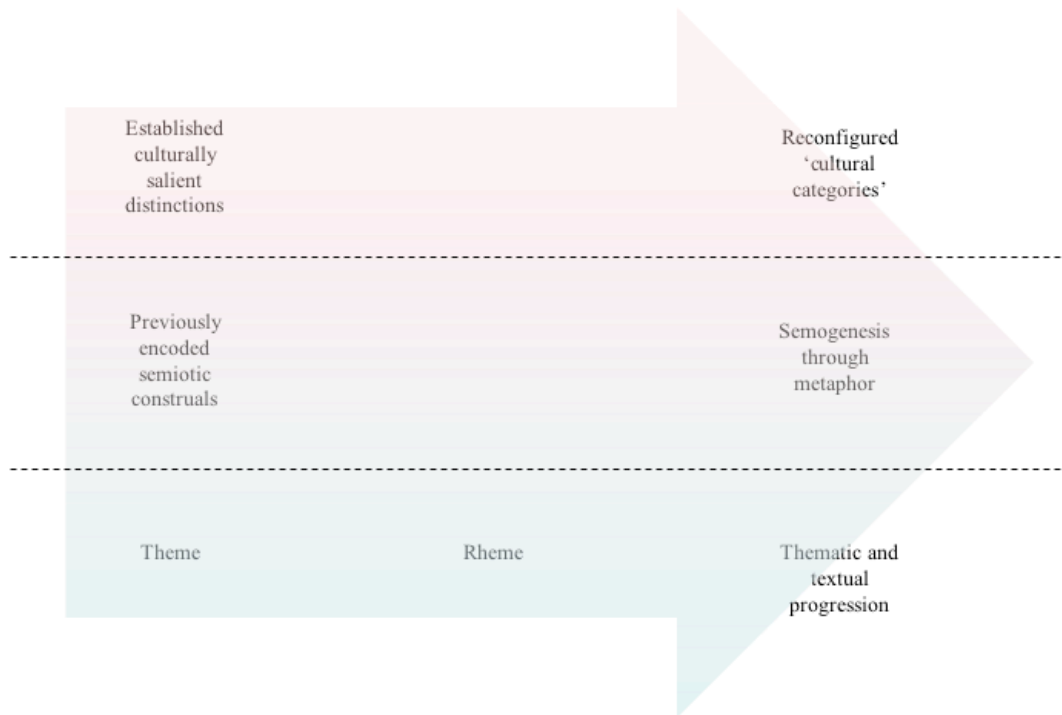
*10.7.3.2 Drifting from explanation to identification: semogenesis within established cultural distinctions*

What Herodotus does here is to make use of the creation of cohesive harmony to 'blur' the distinction between these generic stages of the text, to the point where it becomes quite difficult to separate theory and phenomenon, in terms of their categorial status in relation to each other. The function of cohesive harmony operating within the larger-scale semantic 'disjunction' in the text is to construe what are originally conceived to be separate phenomena— phenomenon and explanation— as being phenomena of the same kind— that is, the explanation *is* the phenomenon, and vice versa. Thus, there is an overall drift in the theory from explanation to identification as the text proceeds. It is as if the more global semantic organisation of the text reflects previously culturally established distinctions between phenomenon and explanation, but within this structure, the clausally-oriented semantics and lexicogrammar

'generates' meanings to make the explanation become a 'real world phenomenon', just like the phenomenon under explanation is construed to be. 'New' information about the world is generated through the ideational lexicogrammar within a semantic environment of the text that embodies already established semiotic frameworks within the culture to create that knowledge.

*10.7.3.3 Theorised experience and experientialised theory:  
culturally salient experience and theory as a semiotic  
perceptive tool*

This is not to suggest that the theory drifts completely into becoming the phenomenon as the text unfolds, nor does the phenomenon 'become' the theory. Instead, experience is theorised, and theory becomes experientialised simultaneously, with the result that there is a partial abstraction away from the phenomenon, as well as the theory having direct causal and temporal linkage, approaching identification, with the phenomenon itself. This has two important consequences. Firstly, it reinforces the tendency to view any part of the experienced world as being worthy of conscious reflection and theorisation; thus this blurring of phenomenon and theory, ultimately driven by the cohesive harmony of the text (and in turn due to consistent lexicogrammatical selections), promotes a particular kind of cognitive and cultural practice as well. Secondly, theories also have 'experiential force'— that is, they become at least partially identified with the 'reality' they explain. Therefore, this also reinforces the practice of theorisation, because this semiotic tool approaches ordinary sense perception in cultural importance, as a legitimate way of 'seeing the invisible'. Thus theorisation is a way of making the experienced world, and the perception of it, culturally salient.



**Figure 10-9 Cultural change modelled on semiotic change**

#### 10.7.3.4 *New meanings in a prior cultural configuration*

In addition, there appears to be an allocation of a group of functional responsibilities to each of the linguistic strata and levels. Phenomena that comprise the larger-scale, contextually oriented semantic organisation of the text essentially realise pre-existing cultural functions and configurations. Specifically for Herodotus' theory, the generic staging and rhetorical structure realise simultaneously the cultural functions of persuasion and construal of experience that had been established prior to the production and reception of this text. In contrast, the clausally-oriented semantics and lexicogrammar of the text realise a blurring of perceptual and textual boundaries as described above, and thus reinforce theorisation as a cultural practice and as a cognitive tool, and actively change what kinds of things can be the subject of theorisation.

Thus these 'lower' linguistic levels of the text have a crucial function in reconfiguring cultural practice, but do so within the environment of the prior cultural assumptions and functions as realised by the rhetorical and generic structure of the text. Therefore, a theorising text such as Herodotus' embodies a cycle of changing cultural practice, by using phylogenetically and logogenetically prior cultural practice as a starting point for such change, and the environment in which such change occurs. Thus even this kind of cultural practice is subject to a process of change that is analogous to the development and unfolding of text, where the process of change is unfolded from given cultural 'departure points'. This view lends impetus to the notion that cultural and cognitive practice, at least at a relatively 'high' level, and its change over time, is semiotic in nature.

## **CHAPTER 11**

### **Theorised argument and narrative as an 'everlasting possession': the context and genre of Thucydides' account of the plague of Athens**

#### **11.1 The context surrounding Thucydides' history**

Thucydides, a native Athenian who served as a general in the long war between Sparta and Athens in the late fifth century BCE before being exiled, was a late contemporary of Herodotus. However, the history that he writes is substantially different to that of his predecessor. The most obvious difference is that he focuses more narrowly on military and political events, and the human causes and motivations behind them, as being the 'proper' subject of historical writing. In addition, he makes the cross-checking of sources of information a priority in the writing of his history, particularly when facts about given events are, or have the potential to be, in dispute.

Thucydides 1.22

kai [[hosa men logôi eipon hekastoi || ê mellontes || polemêsein || ê en autôi êdê ontes]], khalepon <<tên akribēian autên [[tôn lekthentôn]] diamnēmoneusai>> ên emoi [[te hôn autos êkousa || kai tois allothen pothen emoi apangellousin]] ||; hōs d' an edokoun emoi hekastoi || peri [[tôn aiei parontôn]] [[ta dēonta]] malist' eipein, || ekhomenōi hoti enggutata tēs xumpasēs gnômēs [[tôn alēthōs lekthentôn]], || houtōs eirētai. || ta d' erga [[tôn prakthentôn en tōi polemōi]] ouk ek [[tou paratukhontos]] punthanomenos <<êxiōsa>> graphein, || oud' hōs emoi edokei, || all' hois te autos parên || kai para tōn allōn hoson dunaton akribēiai peri hekastou epexelthōn. || epiponōs de hēurisketo, || dīoti [[hoi parontes tois ergois hekastois]] ou tauta peri tōn autōn elegon, || all' hōs hekaterōn tis eunoīas ê mnēmēs ekhoi. ||

And [[as for the things which each person said in a speech, || either when they were about to || go to war || or already were engaged in it]], it was difficult for me || to confirm the accuracy [[of what was said]]– || both of the things that I myself heard || and what people reported to me from one place or another ||; but (the speeches) have been written in such a way || that each person in my opinion || speaks what was required [[for the present situation]], || while keeping as close as possible to the overall sense [[of what was actually said]]. || <<I thought it worthwhile>> to write the facts [[about what had been done in the war]], not by [[finding out from whatever came my way]], nor by what I thought about it on first impressions, || but about what I myself was present at || and by examining information from others with as much accuracy as possible about each fact. || This were found out with difficulty, || because [[those present at each event]] did not say that same thing about them, || but would provide information out of their partiality for one side or the other or from their memory.||

It is clear– despite his ambiguous statements about his sourcing and writing speeches in the History– that Thucydides expends substantial effort in thinking through his historical method, and is clearly conscious about the relationship (whatever relationship that is) between his sources and his writing, and to what degree different kinds of sources can usefully inform the purposes of his text.

Apart from this newer consciousness of his methods and the purpose of his writing, he extends semiotic practices that were present in Herodotus, such as the use of speeches to illustrate the debate that surrounds important choices that particular people make in the narrative of the history, to portray the character of the individuals who make these speeches and the mood and character of the time and the community in which they live<sup>339</sup>. He also emphasises the prevalence of general themes in historical events, particularly the notion of fundamental causes of the war as opposed to the specific provoking incidents that lead to the commencement of hostilities. However, both the speeches and the development of general themes in the history is carried out in considerably more detail and subtlety than is the case with Herodotus. Why this is so lies in the particular cultural context of Athens in which Thucydides lived.

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<sup>339</sup> It should be noted that speeches are not that prominent in the earlier sections of Herodotus' history, but certainly play a prominent role in the later books of the history, where speeches are given by the main political and military protagonists– as is the case with Thucydides' work.



### **11.1.1 The semiotic culture of Athens**

Thucydides' writing was part of, and took place in, the considerable constellation of semiotic activities that occurred in Athenian community life in the sixth to the fourth centuries BCE, which in turn established Athens as a centre for culture, learning and artistic and intellectual activity. Beyond the linguistic activities that were necessary for the daily life of individuals in their community, the genres and registers of oratory became more developed, not only with respect to the main 'aim' of persuasion, but also in terms of their 'euphony' and other 'aesthetic' characteristics (as exemplified by the practice of Gorgias and other 'sophists' who taught rhetoric). Other performance genres associated with religious festivals— notably tragedy and comedy— were also developed and changed so that they became reflective on the human condition and the place of humans in the world, mainly through the introduction, development and 'humanisation' of characterisation. Athens also continued and supported the Ionian tradition of consciously reflecting on the experienced world, either for its own sake or with potential for its application, such as in medicine. Alongside these activities, Athens also became a major centre for practitioners of other performance-oriented semiotic systems, such as music, sculpture and painting.

The people who engaged in these activities were not only from Athens, but also from other places in the Greek world. They were attracted to Athens because of the particular conditions of Athens and the Greek world in the classical period. These conditions had to do with the political system of Athens, the political and military situation in the Greek world generally, and the material and economic circumstances in which Athens found itself at this time.

#### *11.1.1.1 From Ionia to Athens*

The surrounding culture in which Thucydides wrote is also an extension of that experienced by Herodotus. The westward extension of the Persian empire, in the process subsuming many of the Ionian city-states, forced a westward migration of intellectuals from these cities to escape the constraints of Persian rule. Athens was a

particularly attractive place for these people to settle and continue their activities. It had strong cultural and ethnic ties to Ionia— a good reflection of this is that the Attic dialect of Greek spoken in Athens and its surrounds is closely related to Ionian Greek. It was also under a system of democratic government— insofar as ancient Greek democracies went— and therefore allowed scope for such people to continue in their profession. There were considerable pre-existing trade links between Athens and Ionia, and to other states in the Greek world to the west and east, and this facilitated their passage. Athens, however, was not bereft of thinkers before their arrival— it was also subject to the same process of the consolidation of the city-state, increase in trade and prosperity, and growth of 'public life' as happened in Ionia— and there was an audience for those who wanted to engage in conscious reflection, whether this be 'home-grown' or imported. In many ways, we can think of Athens continuing the 'Ionian way of life', at least in terms of semiotic systems.

*11.1.1.2 The room to move semiotically: democracy, government and semiotics in Athens*

Because of the democratic system of government, a relatively large number of people in the community could come to occupy elected positions of public responsibility and power. They not only had responsibility for what one might term the 'essential' functions of government— such as the maintenance of military forces and public administration— but also for cultural events that were deemed essential for the community life of Athens, such as the religious festivals. This included the Dionysia, the festival in honour of the god Dionysius, in which the tragedies and comedies were performed. In addition, the provision of public amenity— such as public buildings, of which the Parthenon of Athens is the most famous example— was also the responsibility of elected officials. Thus public officials had responsibility for, and engagement with, various semiotic activities that could be described as 'aesthetic' in function.

To engage in public life fully— and not just in elected positions— Athenian citizens had to have some proficiency in oratorical skills. This had use in a number of contexts of public life in Athens, such as arguing or listening to a case in the lawcourts, participating in the council (*boulê*) or assembly (*ekklêsia*), or being elected to such bodies or other administrative positions. Training in rhetoric (which amounted to the effective use of the spoken medium of Greek for specific purposes in public life) was part of the education of many Athenian citizens, and this endowed them with a conscious awareness and appreciation of oratory. Thucydides, as well as being a historian, was a general— a public position— in the Athenian army during the war in Sparta, and so would have had quite extensive experience with persuasive genres as part of his public life.

*11.1.1.3 The means to move semiotically: the economic and geopolitical power of Athens*

What Athens had, in contrast to many of the Ionian cities at the time in the fifth century BCE, is considerable economic and geopolitical clout on its own terms. Through trade it had become prosperous, and throughout the fifth century BCE had forged a number of military and trade alliances and agreements with other city-states in the Aegean Sea, thus establishing a *de facto* 'empire'. This eventually pushed up against Athens' military rival Sparta, and caused concern amongst many Greek city-states about Athens' geopolitical ambitions; this in turn led to the long war between Athens and Sparta, about which Thucydides writes his history. In any case, Athens' status in the Greek world ensured that it had the material and monetary resources to attempt projects on a large scale, and to afford its citizens a stable and relatively prosperous lifestyle, in which they had the scope to pursue both private and public interests. The freedom to engage in the construction of texts or other semiotic activities that had 'artistic value', or had functions beyond what was needed to carry on with one's daily life in society, was a product not only of a (relatively) democratic system of government, but also the material means to sustain a stable and prosperous community.

### 11.1.2 The relevance to Thucydides' *History*

As an educated Athenian involved in public life, Thucydides would have had exposure to many kinds of genres intended for 'public consumption', which would include texts that consciously reflect on experience. He either had direct use for them— such as oratory and rhetoric— or may have come into significant contact with, and awareness of, other semiotic activities as a full citizen of Athens. It is likely that he would have at least some familiarity, either by education or exposure, to texts that reflect and examine the human condition, as is the case with tragedy and comedy, and other texts that might fall into the 'speculative' tradition. In this regard, his experience of consciously reflecting texts would be similar to that of Herodotus.

Furthermore, he is quite well aware that he is not the first historian, but is engaged in a practice of historiography that predated him, and in methods of checking and gathering information to synthesise a history that also predated him. He would be well aware of the 'aesthetic' as well as 'informative' functions of texts, and thus that any history that he writes has the potential to stand as a literary work, in a culture that valued literary activity. Through exposure to the visual arts— it would have been unavoidable on a visit to the Parthenon, or many other places in classical period Athens— he would also be aware that certain semiotic activities, and products of such activities, could have a 'purely aesthetic' function, and be valued as such. Thucydides lived in a community that increasingly foregrounded and promoted semiotic activity beyond what was necessary for a community to 'get things done'.

We would expect Thucydides' *History* to embody many aspects of these kinds of semiotic activity, and this is what it does. His history writing incorporates a consciousness of what it means to write history, a reflection on what kinds of material are appropriate for his text. He also had a sense that historiography, since it involves human actors, can perform many of the functions of other literary texts, such as an examination of human and community behaviour, the elucidation of 'guiding principles' that underlie such behaviour, the development of an argument to support

any hypotheses, and the engendering of aesthetic enjoyment in an audience. His account of the plague of Athens is likely to be informed by such considerations.

## 11.2 A relevant digression: the place of the account of the plague in the *History*

As we have noted before, Thucydides gave considerable thought to what is the appropriate material and method for the writing of history. For this reason, compared to Herodotus' *historiê*, Thucydides narrows the Field associated with his account. The events that are construed in Thucydides are intended to be those that most directly relate to the conduct and outcome of the war. Even when Thucydides appears to digress—such as his exposition of the ethnic origin of the various Sicilian colonies in the sixth book of the *History*<sup>340</sup>—it is intended to explain subsequent action; in the case of the sixth book, the 'digression' explains the various political allegiances amongst the Sicilian city-states that are played out in the account of the Athenians' expedition to Sicily. Thus we would expect Thucydides, conscious as he is of what he is writing, what material he bases his writing on, and how he is writing it, to be quite different in focus about what he includes, in comparison to Herodotus.

Given this relative narrowness of Field in Thucydides, it may be somewhat surprising that the plague of Athens that occurs in the beginning of the war is related in such detail, particularly in regard to the physical sequence of events on the human body, to the point where the account may be seen as a relatively self-contained *logos* analogous to those found in Herodotus. This is quite possible— as with the cultural context of Ionia, oral performance was still valued, whether this be in drama, comedy or oratory, and the account of the plague might have had its origins as a 'stand-alone' piece to be read to an audience, later incorporated into a large-scale historical work.

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<sup>340</sup> Thucydides 6.3-5.

It is also true that the plague of Athens in itself is a historically significant event, and significant in terms of Thucydides' own historical writing. The psychological and social disruption that the plague causes is in accord with the general theme of a breakdown in political and military discipline in Athens that leads eventually to the disastrous Sicilian expedition (described in books 6 and 7) and thereon to Athens' eventual defeat by Sparta. However, the detailed description of the physical effects of the disease on individuals does not directly subserve the general purposes of the history as a whole, other than to emphasise that it was a disease with a significant mortality rate, and that it often caused ongoing morbidity in the survivors, leading to the dislocation that occurred in Athenian community life.

But when considered on its own terms 'apart from' the history, the description on its own does constitute a relatively rational, 'scientific' description, and as such can be considered to be a conscious reflection on a particular segment of the experienced world. Much modern interest in this account lies in this particular aspect. This account, considered in this way, continues a particular line of semiotic, cultural activity in which Thucydides, Herodotus and others engaged before him. So we can suppose that there are motivations that lie behind Thucydides' rational description of the physical effects of the plague, and, in a consideration of the context of situation and culture of this text, it is useful to consider what these motivations are in the schema of the history as a whole.

It ought to be noted that Thucydides overtly states that this is 'simply' a description, and not a theory, of the clinical features of the plague as he observed them. At first, this seems to be a 'regression' from the explicit positing of a theory; in fact, he avowedly refuses to speculate on the cause(s) of the disease. Instead of theorising as doctors and others might, he says of his own account:

Thucydides 2.48

egô de <<hoïon te egineto>> lexô

(but) I shall say <<what kind of thing happened>>

egô	lexô
Sayer	Process: verbal: verbalisation + receiver: as locution: reporting + indicating

hoïon	egigneto
Existent	Process: relational: existential: existence plus

However, it will be found in this discussion that this account of the plague does indeed contain a 'covert' theory of disease, and that this covert theory results from a 'grammaticalisation' of the linguistic resources used in conscious theorisation in authors such as Herodotus. This further reinforces the notion that the emergent semiotic practice of theorisation begins to be embodied in the activity of description, and thus theorisation becomes an established semiotic tool for the perception of complex phenomena whose construal is not yet established in linguistic systems. It is perhaps significant that in the above comment on his own account, Thucydides does not exclude the presentation of a theory, covert or otherwise, to aid in the description of the disease, as there is a degree of ambiguity in the experiential status of the Existent in the above clause.

## 11.3 The motivations associated with the account

### 11.3.1 'A possession forever' (*ktêma es äei*)

Thucydides explicitly states— although it is not completely clear to the modern reader— about how he intends his history as a whole. He intends his work to be in itself a 'possession forever':

Thucydides 1.22

kai es men akröasin isôs ||[to mê muthôdes (einai)]| autôn aterpesteron || phaneitai; |||  
hosoi de boulêsontai || ||[tôn te genomenôn]| to saphes skopein kai ||[tôn mellontôn  
pote authis]] ||kata to anthrôpinon toïoutôn kai paraplêsiôn esesthai, || ôphelima  
||[krinein auta]] arkountôs hexei. ||| **ktêma te es aiei** mallon ê agônisma ||[es to  
parakhrêma akoueîn]] xungkeitai. |||

And perhaps upon hearing it, ||[my lack of entertaining storytelling]] seems || to be less than pleasant; |||  
but those who want || to consider clearly ||[what happened]] and ||[what might happen again in the  
future]]– || since things like this will happen in accordance with human nature – || will find this  
sufficient enough assistance ||[in making a judgement about these events]]. ||| My account has been  
composed as a **possession to last forever**, rather than as a speaking contest ||[to listen to the immediate  
moment]]. |||

The point of linguistic interest here, given the previous discussion on how conscious authors are of their semiotic activity, is that he considers his work to be a 'possession' (*ktêma*). Again, this is a reflection of the consciousness Thucydides, and Herodotus before him, had of their own semiosis, because such lexicalisation construes a linguistic activity and process as a experiential object in a clause– here, as a Circumstance: role. This metaphorical transformation into an object allows the author to construe his semiotic activity as having the same material status as any other object in the 'real world', and thus opens up the potential to construe semiotic activity as persisting in a stable form over time. This is consistent with the consciousness of semiotic activity found in Herodotus, where text, and the processes of creating text, are considered semiotically equivalent to materially persisting objects. This means that any part of Thucydides' history– such as his account of the plague– is also conceived of as an enduring object, and is constructed to be so. Thus it is always important to keep in mind Thucydides 1.22, as it is part of the motivation for the writing of the account of the plague.



### 11.3.2 Literature as a semiotic monument; Homer and Herodotus

The above passage, as well as Herodotus' theory of the Nile, implicitly construes semiotic activity—specifically linguistic activity—as something that can be construed experientially as an object, like other speaking activities. However, there appears to be a significant difference between Thucydides and his predecessors. When engaged in narrative, Herodotus and Homer take their writing as being a record or retelling of events, and that their role as writers or literary composers is to guide their audience to have proper appreciation of the events which they describe. As discussed earlier in this thesis, Herodotus' aim is to confer *klēos* 'glory, renown' on the events that he describes. Similarly, in introducing each epic poem, Homer represents the main protagonist of each as Verbiage in a verbal process clause:

Homer *Odyssey* 1.1-2

*andra moi ennepe, mousa, polutropon, || hos mala polla  
plangkhthê, || epei Troîês hîeron ptoliëthron epersen;||*

O Muse, tell to me *the man of many wiles*, || how he wandered far and wide, || after he sacked the holy city of Troy;||

Homer *Iliad* 1.1-2

*mênin äeide thêa Pêlêiadêô Akhilêos  
oulomenên, || hê muri' Akhaïois alge' ethêke, ||  
pollas d' iphthimous psukhas Äidi pröïapsen  
hêrôn, ...||*

Goddess Muse, sing *the destructive wrath of Achilles the son of Peleus*, || which set countless woes upon the Achaeans, || and sent off many famous souls to Hades, ...||

Implicit in such grammatical constructions is the 'folk theory' of telling something to somebody: one speaks something– the event as Verbiage– where the event itself is construed to be created by the actual linguistic activity<sup>341</sup>. In this way, the composer construes his linguistic activity as bringing into 'symbolic existence' the events and subject matter themselves; any significance or 'glory' that is perceived is created by the text which construes them. Because of this, these texts take on the function, at a certain level, of creating the events themselves.

However, at the same time, the function of Verbiage in verbal clauses is analogous to both Goal and Range in material clauses<sup>342</sup>. Particularly when functioning as Range, there seems to be a certain ambiguity between denoting something that is the result of the Process, and modifying the sense of the Process to specifying the kind of activity taking place. A similar situation exists with the category of Range in English clauses, such as *write* (verbal Process) *a history* (Verbiage). In such a case, the Range-like nature of the Verbiage suggests that it could be interpreted as either specifying the kind of verbal process, or denoting the object created by that process<sup>343</sup>.

In these texts, Range can be interpreted dually, as both process subtype and product or end state resulting from the process. When the Homeric poet asks the Muse to sing of the wrath of Achilles, or of Odysseus, what is being asked for is not only for the events to be created through text (thus resulting in a product of the process), but also

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<sup>341</sup> Although the translation of this passage seems to suggest that *the man of many wiles* and *the destructive wrath*... have the function of Matter rather than Verbiage, the grammar of the Greek itself– where these entities have accusative case inflection– suggests the function of Verbiage. Accusative case is used for those participants in clauses which are thought to be most directly affected by the transitive Process of a clause, or act as an 'internal object' which qualifies the sense of the verb (essentially the equivalent of Range)– for this, see Smyth and Messing (1974) p.351-352, and more generally in languages both within and outside the IE family, see Blake (1994) p.68-69, 119-121.

<sup>342</sup> For the function of Verbiage as Range, see Halliday (1994) p.148-149, 167 and Matthiessen (1995) p.281-284.

<sup>343</sup> It has been noted that the interpretation often depends on the co-text and whether the element specified as Range refers to any other participant in the text. See Matthiessen (1995) p.374

that such creation is always with reference to a 'pre-existing' register (the subtype of the process).

### **11.3.3 Text as event, and as icon of event**

As such, the Homeric epics, and Herodotus, are also constructed to function as icons—in the Peircean sense— of the events themselves, and therefore the audience is directed to apportion their attention to those events, regarding the text, in a certain sense, as being the 'messenger' or the conduit through which they are conveyed. Thus, in the earliest available Greek literature, language is regarded as having a dual role in both creating a certain kind of 'reality' and also being the 'messenger' or 'icon' of some pre-existing state of affairs. However, the increasing consciousness of semiosis that is found in Herodotus— manifested in such phenomena as an explicit 'vocabulary of evidence'— tends to shift the emphasis away from viewing language systems as a vehicle— as simply 'representing'— towards regarding linguistic and semiotic systems as the means by which events are created. This appears to reach its logical conclusion in a context of culture— such as that of classical period Athens— where texts and other semiotic activities are valued in their own right. In the case of Thucydides, semiotic and linguistic activity, rather than just being a 'pointer' to something extralinguistic, becomes an end in itself that 'creates' events in a particular way.

### **11.3.4 Thucydides' history as a monument of events and of itself**

This is not to deny that part of the function of Thucydides' work is to have a 'messenger function'. He writes because the events that he describes are thought of as having significance in themselves, as his opening to his history shows:

Thucydides 1.1

Thoukudidês Athênaiôs xunegrapse *ton polemon tôn Peloponnêsiôn kai Athênaiôn*, ||  
hôs epolemêsan pros allêlous, || arxamenos || euthus kathistamenou || kai *elpisas* ||  
megan te esesthai kai axiologôtaton ||[tôn progegenêmenôn]||, *tekmairomenos* || hoti  
akmasdontes || te êisan es auton amphoteroi paraskeûêi têi pasêi || kai ||[to allo  
Hellênikon <<horôn>> xunistamenon pros hekaterous, || to men euthus, || to de kai  
dianöoumenon]||. |||

The Athenian Thucydides wrote *the war between the Peloponnesians and the Athenians*, || and how  
they made war with each other, || beginning writing || as soon as it was declared || and *expecting* || that  
the war would be a large one and would be the event most worthy of record ||[out of all previous  
events]||, || inferring this || because, as the war reached its peak, || both sides came to the war with the  
most preparation, || and <<from seeing>> the rest of Greece ||[allying itself to one side or the other– ||  
some of them at once, || others after thinking their decision through]||. |||

There is some ambiguity as to whether Thucydides is creating or 'representing' the war in his account. As with Homer, the war is construed as Verbiage in the first clause, and so in a sense Thucydides is responsible for the creation of the events semiotically. However, at the same time, Thucydides significantly intervenes in the above statement, by projecting clause complexing involving mental cognitive processes such as *elpisdô* 'expect' and *tekmairomai* 'infer'. These projecting processes can be taken as 'markers' of authorial presence in the construal<sup>344</sup>. So Thucydides represents himself as being responsible for the semiotic creation of events, but at the same time shows that such creation is from his particular angle observing events external to him, and that it is his responsibility to attribute salience to relevant aspects to those external events.

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<sup>344</sup> See Leech and Short (1981) on the relationship between types of direct and indirect discourse and indications of authorial intervention.

### 11.3.5 From commemorating the material to commemorating the semiotic; text as object

The above interpretation of the opening of Thucydides' history does not necessarily suggest that Thucydides was completely conscious of his role in constructing the significance of historical events. Instead, he seems to have assumed or implied that this was so, as well as explicitly fulfilling a 'passive messenger' role. It therefore follows that he— since he at least implies himself to be instrumental in constructing the 'proper' significance of historical events— would also seek to value not only the historical events themselves, but also the role of the text itself in semiotically construing those events. It is as if there has been an evolution of Verbiage from being a Range-like phenomenon to being a Goal-like one.

As a result, just as 'real-life' historical events can be celebrated or commemorated, semiotic activities— the creation of texts and their performance in combination with other semiotic modalities, the production of artwork, sculpture and music— can also be the subject of celebration, or have significance attributed to them. This is why Thucydides can, rather boldly, claim that his own writing can be a *ktêma es aiei* 'an everlasting possession'; his own work can have significance attached to it, as well as the events which his work construes. This development dovetails with the lexicogrammatical realisation of semiotic activity as participant elements of the lexicogrammar. This results in texts, and other semiosis, being valued in the same way that material objects might be valued.

The account of the plague, being part of this history, is similarly valued. As a result, the audience's attention is drawn not only to the events that are being 'conveyed' by the account, but also the nature of the semiotic processes inherent in the text of the account. Value is attached to not only what is said, but how it is said.

## **11.4 Contextual description: Field / Tenor / Mode**

A description of the semiotic context of situation, and particularly the reception of the text, can now be attempted for Thucydides' account of the plague of Athens, which is set out as follows:

Field:

- Author construes a particular sequence of events (the plague) for his audience
- The plague is construed as a significant event in the history of Athens and its community, as well as significant in the conduct of the war against Sparta
- Author emphasises a 'descriptive' approach to the phenomenon organised in terms of its natural history
- Author professes to avoid a theorisation, but does not completely rule out the use of some theoretical concepts to aid the description
- The account is intended to have qualities that ensure its status as an enduring piece of literature, and also to be distinct from other accounts from the event

Tenor:

- Author writes or speaks to public audience
- Initial audience of reception most likely an Athenian audience; many of them will have experienced the plague first hand and been directly affected by it
- Audience looks to new information and approach from Thucydides beyond what they know from first-hand experience of the disease
- Author positions himself as the person to provide a 'definitive' and valued account to his audience
- Audience expects the text to have literary and aesthetic qualities, and expect that the plague 'is made sense of' by the account

Mode:

- written channel
- written medium (although, as with Herodotus, elements of the medium may be spoken in character)

- text is constitutive of the social activity
- author aims to engender understanding of the plague by the audience in the context of Athens and the war
- organised in terms of a generalised narrative and an exposition of consequences that arise from the events
- organisation and development of the text intended to have 'literary qualities'

In many ways, the context of situation in which the account operates is largely similar to that surrounding Herodotus. However, in comparison to Herodotus, three issues are foregrounded.

#### **11.4.1 The foregrounding of history**

The first of these is the relevance of the events to the overall history of the war. Thucydides intends his account to be directly relevant in this regard, unlike Herodotus who explains the behaviour of the Nile with a quite indirect connection to the 'otherness' of Egypt, which in turn has an indirect connection to the general 'antithesis' between the Greek and non-Greek worlds, of which the Persian-Greek conflict (the main business of Herodotus' history) is a part. The seasonal variation of the level of the Nile does not have direct bearing on this conflict.

#### **11.4.2 The foregrounding of general themes of the human condition**

Secondly, there is a considerable foregrounding of the literary and aesthetic qualities of the account. This is not to say that this was not expected of Herodotus. However, Herodotus' main aim is the construal of phenomena that are outside of the experience of his audience, and so his audience is rather more oriented to what 'reality' is being construed by his text. In contrast, Thucydides' Athenian audience is likely to have experienced the described events, or heard about them from other sources, since the

conflict between Athens and Sparta, and the significant events occurring in both places, occupied the political consciousness of the Greek world for a considerable period of time. Much of the 'reality' that Thucydides describes to them they would know already. What is left to the author is to make sense of the events for them, in terms of what it meant for Athens, for the war, and what it might say about human nature and behaviour in the face of unexpected, catastrophic events. This is not too dissimilar to the artistic expectations such an audience would bring to tragedy or comedy, or in the appreciation of political or legal speeches, since they are likely to be stories known to at least part of the audience.

### 11.4.3 The increased foregrounding of literature as a semiotic activity

As discussed before, semiosis for its own sake, beyond the 'utilitarian', came to have increasing value in Athens. Thucydides intends his account of the plague to be similarly valued as a sophisticated product of semiotic activity. It is granted that Thucydides does have particular aims in the account of the plague, with respect to the larger history that he writes, and with respect to his audience. But at the same time it can be enjoyed for its intrinsic literary form, for the intrinsic flow and development of the text, and for the emotions that it might engender in the audience. The engendering of emotions was seen as a central aim of rhetoric, something which Aristotle was to more explicitly set out in the *Rhetoric* in the fourth century BCE<sup>345</sup>, but which was implicitly understood by an educated Athenian audience in Thucydides' time. Thus the elicitation of an emotive response in rhetoric was most likely a significant part of the Field and Mode of such genres and registers, and an audience would have most likely have been accustomed to this happening.

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<sup>345</sup> This involves the notions of *êthos* 'character', *logos* 'argument' and *pathos* 'emotion' proposed by Aristotle as central components of persuasion. See Rorty (1996) p.8-23 for the discussion of these terms and their function in rhetoric as conceived by Aristotle, and, for more detail about Aristotle's account of the role of arousing *pathos* to influence an audience's judgement, see Striker (1996) p.288-293.



Ancient world appreciation of the account focused on these 'rhetorical' aspects of the account, as can be seen by what aspects of Thucydides' account of the plague were 'borrowed' into later literature. When the Roman Seneca came to adapt the story of Oedipus for his audience, and wanted to convey the sense of utter destruction and desperation visited upon Thebans by means of the plague inflicted by the Sphinx, he borrows features of the real-life plague of Athens described by Thucydides into his Latin adaptation.

*Seneca Oedipus 52-70*

nec ulla pars immunis exitio vacat, ||  
sed omnis aetas pariter et sexus ruit, ||  
iuvenesque senibus iungit || et natus patres  
funesta pestis, || una fax thalamos cremat ||  
fletuque acerbo funera et questu carent. |||  
quin ipsa tanti pervicax clades mali  
siccavit oculos, || quodque in extremis solet ||  
periere lacrimae. ||| portat hunc aeger parens  
supremum ad ignem, || mater hunc amens gerit ||  
properatque || ut alium reptet in eundem rogam. |||  
quin luctu in ipso luctus exoritur novus ||  
suaeque circa funus exequiae cadunt. |||  
tum propria flammis corpora alienis cremant; ||  
diripitur ignis; || nullus est miseris pudor. |||  
non ossa tumuli sancta discreti tegunt. |||  
arsisse satis est; || pars quota in cineres abit! |||  
dest terra tumulis, || iam rogos silvae negant. |||  
non vota, non ars ulla correptos levant. |||  
cadunt medentes, || morbus auxilium trahit. |||

No part of society is free from death, || but every age and sex is equally afflicted, || and young men join old men, || and fathers with their children in the death of the plague, || one flame burns the chambers of

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the married || and funerals lack bitter tears and lamentation. ||| Indeed, the curse itself of such great evil has dried up our eyes, || and, as is accustomed to happen in dire times, || our tears have perished. ||| A grieving father brings his child to the final flames, || a mother beside herself brings her child || and hurries back || to fetch another for the same funeral pyre. ||| Indeed, new grief supervenes upon old grief, || and their rites fall around a funeral. ||| All the while their bodies burn in the flames of others; || the fire is stolen; || there is no shame among the wretched. ||| Separate mounds do not cover the sacred bones. ||| It is enough that they are singed; || how small an amount is turned to ashes! ||| There is no ground left for tombs, || now the woods deny them funeral pyres. ||| No prayer takes the burden from the sick, or any skill. ||| Healers are cut down, || the disease takes away any help. |||

What Seneca emphasizes in the account is the degree of suffering endured by the Thebans, the totality of destruction, the ineffectiveness of treatment, and the disruption of usual burial procedures and customs, and the death of those who come into contact with the sick. There is perhaps one reference to physical symptoms– the drying up of eyes– although this is not certain, as this could refer to the disease or to eyes exhausted of tears. These are all features that are found in Thucydides' account of a real-life disease, and here Seneca imports them into a literary portrayal of a mythological one. It is quite clear that what Seneca has decided to use from Thucydides are those features of the plague that relate most directly to individual and societal behaviour and suffering, and the effects on society as a whole, rather than the physical effects on the individual. As a result, it seems that the ancient world's appreciation of Thucydides' account is like that of any other literary, rather than scientific, work– it is prized for its construal of pathos and tragedy. In other words, it is valued for its effective portrayal of events that directly deal with people's behaviour and emotions. It is for Thucydides' portrayal of pathos, and his overall 'literary qualities', that his account of the plague is appreciated by the ancient world audience.

Overall, it is this foregrounding of the need to explore the human condition on its own terms through literary activity that distinguishes the context of situation of Thucydides' account from that of Herodotus. However, this can also be seen as a logical development of the kind of context of situation in which Ionian speculative and logographic texts were produced and originally received.

## **11.5 Semantic description: Generic structure**

### **11.5.1 Preliminary remarks: a heterogeneous generic structure**

The generic structure of this account is quite complex; however it does have important features that are associated with the context of situation— in particular, the Field and Mode— of the account. It is important to note that there are several stages to the account, and all of them can be said to have an internal generic structure. There is considerable heterogeneity in the kinds of internal structure, ranging between narrative-type structures to those with an 'argumentative' structure, and this reflects the dual purpose of the account— to relate past events, and to do so in a way that can be integrated into any future theoretical formulation of this and other events 'of the same kind'. These different structures are also important in the delimitation of different types of knowledge in the same account.

#### *11.5.1.1 Generic structure and categories of experience*

This demarcation between narrative and argument within the one account helps to create defined categories of experience— the physical and biological on the one hand, and the psychological and social on the other. This division, supported by this 'generic heterogeneity', reinforces the audience's impression that physical and biological phenomena are being delimited in a consistent (though not absolute) way from other phenomena, and thus that this account is 'scientific'. In many ways, this account is a microcosm of what is most likely happening in classical period Athens and Ionia, where one kind of semiotic practice is maintained side by side with another, but at the same time informed by the practices of the other.

### *11.5.1.2 Recurrent generic structures*

Despite this variation, however, some of these stages have a common internal structure. This commonality most probably reflects a 'standardisation' of particular generic forms that are deployed for the creation of particular kinds of knowledge, with the potential for that constructed knowledge to be used in future discourse that occurs as a part of certain kinds of semiotic and cultural practice. So, in effect, various standard generic forms are brought together in the one account in Thucydides. To a significant degree, they are kept separate so as to produce different kinds of consciously constructed knowledge, which in turn subserve the various settings of Field and Mode in the context of situation. As in Herodotus, they are a manifestation of the previously established cultural and semiotic practices that are brought to bear on Thucydides' practice here. However—also as in Herodotus—they are not directly 'responsible' for the creation of new knowledge by the account; this is achieved primarily by the deployment of specific resources that lie at the level of rhetorical structure and the lexicogrammar.

## **11.5.2 Remarks on overall character of generic structure**

The overall generic structure of the account is as follows:

**Precis ^ Natural History ^ <<Motivation>> ^ Natural History ^ Differentiation  
^ Reaction ^ Specific Consequence ^ General Consequence ^ Reaction ^  
Summary**

Each of these— including the internal generic structure of each— will be described in turn. However, some general observations can be made at this point. Overall, there is a strongly narrative-oriented character to the generic structure. One entire generic stage (Natural History) is essentially a generalised narrative— this is reflected in its

internal staging, as will be shown later. Many of the other stages (such as those which are labelled 'consequence' or 'reaction') have a function that is reminiscent of sequent stages in a narrative– they 'follow on' from previously construed events, and the sequencing of these stages relative to each other is with respect to a time axis.

#### *11.5.2.1 The dispersal of argument around and among narrative*

However, interspersed within this narrative-type staging, are stages which are equally reminiscent of an argument-based structure– that is, a structure that is oriented to persuading an audience of the construal of a particular state of affairs. This structure, via the stages of *Precis* and *Summary*, frames the entire narrative sequence of the events associated with the plague. It should also be noted that the stage of *Motivation*– which is intended to signal to the audience why Thucydides is engaged in his particular type of description of the plague– 'interrupts' between two substages of the *Natural History*. This ties the narrative events described into a larger self-consciousness about the kind of linguistic activity in which he is engaged with the audience.

In addition, placed amongst the narrative sequent stages, is the stage of *Differentiation*, which has the function of emphasising to the audience of the text the magnitude and significance of the events so far construed, and so how they differ from other similar events. The internal generic staging of *Differentiation* itself is of a character oriented to argument rather than narrative. The overall function of the *Differentiation* stage– that of signalling the differences between two phenomena– is reprised in the internal structure of the *Motivation* but with an 'internal', interpersonal orientation, where Thucydides differentiates his own linguistic activity from that of others. Thus, the overall function of the *Differentiation* stage, in the light of the previous *Motivation* stage, is also oriented towards argumentation, as well as its internal generic configuration.

In addition, many of the stages with an overtly narrative function (such as *Reaction*, *Specific Consequence* and *General Consequence*) do have a *Precis*- or *Claim*- type

stage, as if to emphasise to the audience the author's 'main point' of that section of the account. The further exposition of events in these stages has both the function of providing more details about the state of affairs represented in the *Precis* or *Claim*, but also take on the function of providing evidence for the claim. As such, there is a certain 'duality' between description and argumentation in these stages.

Thus, through the sequence of main stages of the account, and through some of their internal staging, there is a significant framing of the narrative within a staged argument structure, and thus at the level of generic structure we find that there is framing of argument and narrative in terms of each other. We have seen in Herodotus that this blending of the two different kinds of linguistic resources for description and argumentation was the basis for the conscious reflection or theorisation of experience. In this account from Thucydides, it is as if this blending has moved up a level in the semantic stratum, so to speak, into the more global organisation of text. If we also hypothesise that the generic structure of a text embodies the cultural assumptions and practice that predate the production of the text, this account may provide crucial evidence that the changes in linguistic use found in Herodotus have become encoded or more established in cultural practice by the time that Thucydides wrote his account. This hypothesis will be revisited once a more detailed consideration of the generic structure of this account has been made.

#### *11.5.2.2 Generic recursion and fractality*

The other feature to note about the account's generic structure is its recursion. Half of the main stages of the account (four out of eight) are in effect instantiations of two generic stage types— 'consequence'- and 'reaction'-type generic stages. Furthermore, there are commonalities in their internal staging— another manifestation of generic recursion. As the account progresses, these stages increase in the generality of the events that they describe— for instance, there is a movement from the stage of *Specific Consequence* (those behaviours that directly relate to the effects of plague) to *General Consequence* (describing the 'mindset' of the community that underlies its actions as a result of the plague). This progression involves the use of a recurrent generic stage

type to move further away from direct narrative reporting of events towards authorial generalisation about, and evaluation of, the events surrounding the disease, which is constructed more in terms of a type of argument for a particular proposition. This may provide evidence of how relatively entrenched generic forms may be employed for the further co-integration of narrative and argument to result in a theoretical formulation. However, as with Herodotus, it is not certain to what extent this phenomenon is crucial for such 'splicing' of semiotic practices. Furthermore, there appears to be a 'fractal' type of generic recursion in Thucydides' account— in particular, the Departure stage in the account as a whole appears to have a homologue in the *Precis* of the internal stages of Specific and General Consequence. More will be said about both issues later.

### **11.5.3    *Precis and Summary***

These 'boundary marking' generic stages— the last of these only one clause in length— perform an introductory, focusing function, and short concluding function respectively. In effect, they serve as strong framing for the account of the plague as an entity relatively distinct from the rest of the history. These are important functions for the account as a whole, and its relationship to the rest of Thucydides' history. We have already mentioned the crucial importance of the account of the plague to illustrating some of the major themes of the history as a whole— in particular the social disruption and eroding of Athenian policy discipline— to the point where these consequences of the plague segue almost seamlessly into these central concerns. However, the framing function of these two stages of the account serve to mark off the account from the rest of the history. This signals to the audience of the text that the account can be considered independently of the rest of the history, and therefore 'on its own terms' as a self-contained account.

11.5.3.1 Functions as 'boundary markers' of a *logos*

It is quite possible that this account, as with Herodotus' accounts, had its origins as a separate *logos* (with the possibility that it might have been performed or otherwise publicly distributed) that was later brought into the more wide-ranging history as a whole. This incorporation may very well have involved additional writing about the social effects of the plague in order to more securely relate plague and war to each other. The origin of the account as an independent *logos* might explain this relative separation of the account from the co-text of the history.

However, if this was the case, and it was more of a priority for Thucydides to integrate the events of the plague and the history as a whole, then it was probably quite possible for him to dispense with these 'boundary markers' altogether to achieve this integration. Instead, he has used these generic stages to sharply delineate the account, or— if we accept that it was originally an independent *logos*— he left these stages in. Either way, these stages are present in this account because Thucydides intended to afford the audience the opportunity to engage with the account of the plague on its own terms. These stages are not present in the account because he 'forgot to take them out'. It therefore follows that the account is intended to be consciously constructed knowledge about the plague in its own right, and at least to some extent constructed independently of historiographical themes in Thucydides' work as a whole.

11.5.3.2 Part summary, part 'initiating event': the hybridity of the *Precis*

It is also worth noting the hybrid function of the *Precis*, and the occurrence of a similar phenomenon in Herodotus' account of the Nile. Here, the *Precis* does not function entirely as a complete 'cataphoric summary' of the events of the disease and their impact on Athens— it performs other functions other than to convey the epidemic nature of the disease and the ineffectiveness of treatments and nursing. It does



summarise what is to follow because it states that this particular disease happened, and overwhelmed everything else. At the same time, however, it serves as the launching point for the sequent Natural History, because it describes events that are not found in the rest of the account, and these events are temporally prior to them— the description of the areas of Greece affected by the plague before its arrival in Athens. Therefore the *Precis* also has a function analogous to Initiating Event in the story narrative<sup>346</sup>. It mentions the events leading up to the plague afflicting Athens, as well as giving a 'foretaste' of the catastrophic effects associated with the disease.

### *11.5.3.3 The *Precis* and Summary as stages in an overall argument*

The function of both *Precis* and *Summary* is also analogous to that of the opening and concluding sections of an argument. They, respectively, introduce the issue at hand with a relatively covert construal of the author's evaluation of the significance of the events, and then conclude the events in a summary way (as opposed to the 'final habitude' constructed by the *Finale* in a story narrative). Thus, these stages are but one indication that the generic staging of narrative and argumentation are being spliced together, with the result that narrative events are being 'seen' in terms of a structured argument. This has significant implications for the degree to which the events construed by a narrative can be further incorporated into a consciously reflective, theoretical account of a given set of phenomena. This is because, as we have seen from Herodotus, any theory has to be construed in terms of a supported argument oriented towards an audience. Framing narrative events in such terms increases the likelihood that those events will be the subject of conscious reflection and theorisation. Examination of the other generic stages will bear this view out. For the moment, it will suffice to say that this is entirely consonant with Thucydides' professed motivation for detailing the events of the plague, expressed in the *Motivation* stage of his account.

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<sup>346</sup> See the previous discussion of the *Departure* stage in Herodotus' account of the flooding of the Nile, and also Hasan (1996) p.68-70.

Thus we may expect that Thucydides' account is in some way consciously reflective on the phenomenon that it describes, and therefore expect some theory to be embodied in the account, however covert it may be. However, as in the previous discussion on the function of the generic stages in Herodotus, it is important to emphasise that the stages in themselves do not bring about the creation of such a theory, or, for that matter, the manner of description of the disease. Both are brought about by phenomena at other linguistic levels and strata. The generic framing simply signals to the audience that there is an ongoing potential in the text for a description and covert theory to proceed, which is intended to increase the audience's understanding of the phenomenon. These stages thus contribute to the 'global' semantic environment in a text, in which a consciously reflective account can develop.

#### **11.5.4 Natural History**

The Natural History stage of the account is the principal narrative element of the account of the plague. Simply by virtue of it consisting of a narrative, we may expect that this stage has its own internal generic structure, which indeed it does. However, the narrative contained therein does not proceed in a completely linear fashion— that is, it is not in one axis of temporal succession. Instead, we find that one narrative strand diverges into two, and then these strands reunite, as it were, to proceed to one of two final outcomes. This overall pattern is the basis on which the internal staging of the Natural History is developed, which is as follows:

**Prodrome ^ External Concurrent Narrative ^ Internal Concurrent Narrative ^  
Finale ^ Alternative Finale**

Between the first two internal stages, there is an 'interrupting' ranking generic stage— Motivation— which is at the same 'rank level' as the Natural History. Discussion of this particular stage will be left aside for the moment. However, its interruption into

the Natural History has significant implications for how the predominantly narrative function of the Natural History is seen with reference to an overall argument structure, and so the discussion of the Motivation will be done in reference to a detailed discussion of the Natural History.

#### *11.5.4.1 Ideational orientation of the Natural History*

The other important feature to note about the internal staging is that the distinction between stages is experientially or ideationally oriented. That is, the difference in function between each of the internal stages is in terms of which subsection of the events of the plague is being described. The Prodrome, for instance, has the function of describing the geographical progress of the plague in the known world outside of Attica, prior to its eventual arrival in the main part of Athens. The effect of the disease on Athens itself is the main focus of the account, so in effect the Prodrome contains 'background' to introduce the notion of the plague gradually into the focus of attention.

Similarly, the External and Internal Concurrent Narratives describe two sets of parallel phenomena, which are thought to be occurring at the same time in the same stage of the disease. The functional division between the two is in terms of whether the processes of the active stage of the disease, or the consequences of them, are externally perceptible, or whether they result in subjective complaints and other kinds of behaviour that result from suffering the disease.

#### *11.5.4.2 Abstraction away from time and instance: the generalised nature of the narrative sequences*

Three points should be made about these narrative sections. Firstly, like any other narrative, these substages comprise a number of sequent events— that is, discrete events associated with the plague are organised along a temporal axis, and the linkage

between these events is supposed to be temporal or causal in nature. However– and this is the second point– the narrative is not of one particular instance of disease affecting one individual (although some of events described most likely do come from Thucydides' own experience of the disease). Instead, it is an organised constellation of events which are thought to occur in most or all cases of the disease– the typical course of disease. This abstraction away from specific cases is intended to be reflected in the labelling of this stage as 'Natural History', although it might be more accurate to regard it as a stage of 'generalised natural history'.

This is essentially the same phenomenon as is found in the Extension stage of Herodotus' theory of the Nile, although the 'axis of abstraction' is different in this case. In Herodotus' theory, the events of the Extension are intended to be abstracted from any one seasonal cycle of the Nile's level, and so is an abstraction away from temporal deixis. In Thucydides' account, there is abstraction away from any one individual or case of the plague. It is a different direction of abstraction, but abstraction from deictic specificity nevertheless. However, it might also be presumed that everyone did not fall sick simultaneously, and so, as in Herodotus, there is also some abstraction from temporal deixis– the account is intended to 'hold generally true' no matter at what time in the particular period people fell sick.

#### *11.5.4.3 Abstraction and the underspecification of the generic stage*

The third point about this narrative stage is that, as in the *Precis*, the generic stage in itself does not directly engender the temporal organisation or abstraction found in the *Natural History*. Again, these functions are carried out by phenomena at other linguistic levels and strata. The generic stage simply provides the semantic environment in which these functions can take place. However, this relatively 'loose constraint' allows such generic stages to develop different kinds of text over time. We can perhaps presume that we would find similar kinds of staging in battle or other kinds of narrative which construe specific events occurring at the one time, as well as

the relatively abstracted narrative that we find here. However, as further discussion will show, the generic structure does not put constraints on aspect, usuality or generality— the only requirement of such stages is that there be processes that are temporally related to each other. Thus the generic stage, while not directly responsible for the functions contained within it, has the potential to allow the development and inclusion of new kinds of functions. Here, the 'underspecification' of the Natural History narrative stage, and its substages, allows for the development of abstracted processes that are temporally organised in relation to each other.

#### *11.5.4.4 A choice of unhappy endings: two kinds of Finale*

The Finale and Alternative Finale function as they do in other kinds of narrative— they are intended to construe the 'final habitude' or endpoint stable state(s) arising from the previously construed narrative events. As the names for these generic stages suggest, however, they are intended to be alternative end-states for the disease— death or disability respectively. In a sense their relationship is like that of the concurrent narratives— as the results of the rhetorical structure analysis show, it is also one of extension, although of varying rather than additive type.

#### *11.5.4.5 Underspecification leads to generality and thence to choice and knowledge*

This picture of alternation is also important for the development of the conscious construction of knowledge, and is related to the nature of the relatively abstracted narrative function of the Natural History. Once events are abstracted from any one instance, there is no longer any requirement for the sequent events to culminate in any one specific end state; instead, alternative end states can be presented to the audience. Therefore, we have the situation in this account where the relatively loose constraints on the narrative substaging of the Natural History allow for the subsequent development of a generalised narrative sequence, which in turn opens up the potential

for the deployment of a stage which acts as a second, alternative Finale. If we assume that the generalisation and abstraction is the result of other semantic or lexicogrammatical phenomena, then these phenomena at least partially determine the function of a subsequent generic substage— in this case, the Alternative Finale. This may be a further instance of where the 'semogenic' phenomena at other linguistic levels have a subsequent effect on the function of the more global generic organisation.

#### *11.5.4.6 Taxonomic organisation of Finales*

The contrastive relationship between the Finale and Alternative Finale is also important for the conscious construction of knowledge about a given 'real world' entity. These substages stand as two semantic units which are seen in relation to each other— the Finale is not only seen as the only endpoint of the disease, and the Alternative Finale gains its functions from being seen in relation to those of the Finale. This is akin to the taxonomic organisation of semantic units that may be constructed by a text that seeks to inform an audience of a particular phenomenon, and engender their understanding of it and related issues— particularly those texts that characterise phenomena in terms of type, part, or class membership<sup>347</sup>. Thus the semantic relationship of Finale and Alternative Finale to each other is like that of the taxonomic relationship of semantic units that results in texts consciously constructing knowledge and promoting its understanding by an audience.

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<sup>347</sup> See, for example, the discussion of a text describing 'Helena's Story' of her experience with apartheid-era South African police, and a text that discusses various 'types of justice' in South Africa in Martin and Rose (2003) p.91-103. Taxonomic relations also are implicitly constructed in multiple co-nuclearity of rhetorical structure— see the discussion of the rhetorical structure of the account of the plague in Chapter 12.

*11.5.4.7 A case of staging oriented to conscious reflection*

The Natural History and its constituent substages are therefore largely narrative in character. However, the relatively loose constraints associated with this stage— and the relative underdetermination by generic stages as a whole— allow for the exposition of the events associated with the natural progression of the disease in the individual. This involves a degree of loss of deixis— both temporal and 'participant' deixis— but while maintaining an internal temporal organisation. This allows for the narrative to be relatively abstracted and generalised from individual instances of disease. This has implications for the nature, function and relative organisation of substages within the Natural History, particularly the two kinds of Finale. This in turn allows the narrative exposition of events to be constructed as conscious units of knowledge, and therefore to be potentially used in any future disease theory. Therefore, the Natural History stage of the account provides the semantic environment for the construal of the physical events of the disease as 'partially theorised' knowledge.

The other reason why the Natural History consciously constructs knowledge for the audience of the text is that it participates in an overall argument structure that spans the entire account. The main means by which this occurs is that there is an interruption between substages of the Natural History by a 'ranking' generic stage whose functions are explicitly oriented to addressing the text's audience. This interruption ultimately has the effect of bringing a narrative section in the account within an argumentative framework, and thus within a consciously constructed theory and body of knowledge. The character of this interrupting stage— the Motivation— will now be discussed.

**11.5.5 Theorising narrative: the Motivation stage**

The overall function of this stage is to explain to the audience what Thucydides wants to describe about the plague, what justification he has for writing about it in the way that he does, and how it might potentially contrast with the purposes and motivations

of other people's accounts of the same phenomenon. In short, Thucydides is commenting on his own manner of semiosis or meaning-making, and how this relates to the context of situation in which he produces the account, and in which the account is received.

#### Thucydides 2.48

egô de <<hoïon te egigneto>> lexô, || kai aph' hôn an tis skopôn, || ei pote kai authis epipesoi, || malist' an ekhoi || ti pröeidôs || mê agnôein, || tauta dêlôsô || autos te nôêsas || kai autos idôn ||[allous paskhontas]].

I shall say <<in what way it (the plague) occurred>>, || so that, if it were ever to occur again, || one would be able not to be ignorant of it, || by having recognised it before || from considering it from my account. || I shall describe these events, || having suffered the disease myself, || and myself seeing ||[others as they were afflicted]].

Thucydides both explicitly invites the audience to think about the events that he is about to describe, and to correlate his description with any future construals that others might make of future epidemic diseases. In particular, attention should be given to the sense of *agnôein* 'to be ignorant of'. One aspect of its sense is that of failing to recognise by 'appearance' something which has or has not happened in one's previous experience. However, the other facet of its sense— in common with related words such as *gnômê* 'opinion' and *gignôskô* 'understand' is that of the overall understanding of a particular phenomenon<sup>348</sup>. In short, he is anticipating that his

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<sup>348</sup> See, for instance, Liddell, Scott et al. (1968) p.11-12 which defines *agnôëō* as both 'not to perceive' (usually in the perfective aspect 'simple past' aorist tense) and 'fail to understand', citing Thucydides and Plato for each sense respectively. There is also the sense 'to be ignorant of', but this is ambiguous; however, it is likely that some of the cited examples for this sense (Herodotus and Plato) have the sense of 'fail to understand', given that these two senses are grouped together in the lexical entry. The use of the related term *gnômê* 'opinion, judgement' is well recognised in Thucydides, being 'signature lexis' for Pericles, and generally denotes one's understanding of a given phenomenon and appreciation of attendant issues, on which a response or plan



audience will consciously reflect on his account of the disease, and will relate his description to any other description of an agnate phenomenon, and that such future texts will be constructed with reference to his text. Furthermore, he aims by this statement to not only provide a description but also some form of explanation which 'makes sense' of the disease, so that people understand it— that is, they have an appreciation of the various aspects of the phenomenon so that they may act in an appropriate way should it ever reoccur.

Two issues in the discussion of this stage need to be addressed. The first of these is essentially a methodological one for this discussion. It is proposed here that the Motivation is a 'ranking' stage— and therefore at the same level of generic structure as the Natural History as a whole, and the *Precis*, and so on. This is in preference to the alternative view that the Motivation is another substage of the Natural History, at the same level as the *Prodrome* and the concurrent *Narrative* substages. The second issue concerns how the functions associated with the Motivation, and its interruption into the Natural History, serve to bring the described events of the plague within a larger argumentative framework, and thus also 'theorises' the description surrounding it.

#### *11.5.5.1 A ranking stage*

There are two reasons why the Motivation should be considered a 'ranking' stage in the account of the plague as a whole. The first of these concerns the function of this stage and its compatibility with that of the Natural History. As we have seen before, the functions of the Natural History are to do with the construction of a generalised narrative of the events of the disease, where each of these events are temporally related to each other. We therefore expect that the Natural History's substages to fulfil these functions, and that the function of each of these substages is 'compliant' with the functions of the stage as a whole. We cannot say that the functions of the Motivation are consonant with those of the Natural History, or any of its substages.

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of action is based. See *ibid.*, p.354, where this seems to underlie the definition of this word as 'intelligence' or 'judgement'.

Firstly, it does not engage in any narrative functions at all— it does not construe events which are temporally coordinated with each other, and these events are not construed to have occurred in a past time within a specific geographical space. Secondly, it is clear that the Motivation reflects cataphorically on the nature of the narrative account to be presented, because it comments explicitly on how Thucydides is about to unfold his descriptive text, and how the manner of this unfolding is (potentially) different from others. For these two reasons, the functions of the Motivation stand outside those of the Natural History, and so we would be inclined to consider this stage as not being part of the narrative-type stages of the account as a whole.

The second major reason for considering the Motivation as an interrupting ranking stage is that it appears to have a function that fulfils some of the constraints of Field in the context of situation. Part of the aim of the account is to be 'different'; that is, to differentiate his account from that of others, while still maintaining its legitimacy as a comprehensive and trustworthy record of the events, as the history as a whole aims to be. The Motivation fulfils both of these requirements of Field, by explicitly positioning Thucydides in 'opposition' to others, and by being explicit about (or at least commenting explicitly on) how he is going to develop his account, and his 'nearness' to the events. Thus the Motivation positions the account of the plague as a whole as being a unique and legitimate literary and historiographical contribution.

It may be argued that this function only applies to the description of the physical effects of the disease— that is, the Motivation only makes legitimate and different that part of the account that deals with the physical effects of the disease on the individual. Any description of the psychological and social effects of the plague are more likely to be the subject of critical evaluation by the audience. However, the overall generic structure of the account is such that these effects of the plague are taken to be temporally and causally linked to the actual onset and course of the disease among a significant section of Athens' population. Therefore the functions of the Motivation not only apply to the Natural History, but also to those generic stages that 'naturally' follow on in a narrative-type sequence from it. The disease is construed to be devastating and thoroughgoing in its effects, and the description of the social and

psychological effects is contingent on this kind of characterisation of the physical disease itself. Thus, the Motivation is a ranking stage in the account of the plague as a whole, and therefore interrupting between the first and second substages of the Natural History.

#### *11.5.5.2 The role of the Motivation in the account as a whole*

It has been argued so far that the Motivation stage has a function in the account as a whole, and that this underlies its position as interrupting another ranking stage. It is now time to consider more precisely the role of this stage is, and what is its effect on the account as a whole. It appears that the role of the Motivation is simply to say why Thucydides is constructing his particular kind of account. If we were to look at the stage in more detail, however, we would find that it is not quite as simple as that, and it is a useful illustration of what linguistic strata and levels are responsible for what kinds of effects in the text. As further discussion of the rhetorical structure of this text will show, the major antithetical relationship constructed between the semiotic activities of others and that of Thucydides is not a function of the generic stage *per se*, but of its antithetical relational structure in the environment specified by the context of situation. Similarly, the basis of constructing his authorial legitimacy is not the responsibility of the generic stage alone. As the discussion of the lexicogrammar will show in Chapter 13, it is a function of the clause complexing occurring within the environment of the generic stage and the context of situation. Thus the function of the generic stage is to signal authorial motivation alone; but at the same time, this provides the general semantic environment for the construction of the more specific basis of the motivation— that of difference and legitimacy— by systems at other linguistic levels.

Although these more specific features are not directly the function of the generic stage, they occur within its semantic environment. As further discussion will show, this opens up the potential for logogenetically later generic stages to have functions that had emerged through the operation of the 'lower' linguistic levels in prior stages of the account. In particular, the functions associated with the Differentiation stage

can be directly attributable to the meaning-making that takes place within the environment of the Motivation, and the interruption of the stage into the Natural History. It is the discussion of this stage to which we will now turn.

### **11.5.6 Rhetorical relation becomes generic stage function: the Differentiation stage**

The overall function of this stage is to comment on the significance and magnitude of the disease in relation to other similar kinds of experienced phenomena. In this account, Thucydides attempts to show that the disease was out of the ordinary, and it is on this basis that a comparison is made between the current disease and prior epidemic diseases. It is intended that, on engaging with this stage, the audience will have an appropriate appreciation of the overall significance and magnitude of the physical effects of the plague.

Three major issues arise from consideration of the nature of this stage. Firstly, it is a stage that is more oriented towards persuading an audience of a particular view, and this is revealed in the internal substaging. Secondly, one overall effect of this persuasive structure— to differentiate the present state of affairs from previous ones— appears to derive from the internal relational structure of the prior ranking stage of Motivation. A second overall function also may derive from the relational structure of the Motivation— that of legitimating the particular semiotic choices that Thucydides makes. One of the effects of the Differentiation may be to similarly legitimate subsequent generic stages and the semiotic choices within them.

#### *11.5.6.1 The orientation of internal substaging to persuasion*

The most direct evidence for the overall orientation of the generic stage to the audience lies in its substaging. A major claim about the significance of the disease is then followed by three stages which construct three separate sets of evidence for the

claim being made. Hence the overall function of the Differentiation is to tie the events that have previously been construed into the presentation of an argument to the audience.

At the same time, however, each of the Supporting Evidence substages construes events which are temporally concurrent with the onset of the disease on the population of Athens. Each of these three sets of events are ongoing, and in a sense construct an 'ongoing habitude' to the events described previously in the Natural History. Thus each of these Supporting Evidence stages have a narrative-like function, but they are within an overarching claim-argument sequence of generic stages. In an important sense, this stage is a microcosm of the overall generic organisation of the account of the plague of Athens— that is, it is a narrative sequence of events that lies within the framework of an overall argument.

However, it is also important to note, despite the predominant 'argumentative' function of this stage, that it also contributes to the narrative functions of the account as a whole. By introducing the kind of events that he does in each of the Supporting Evidence stages, he also construes new narrative events that are temporally related to the events construed in the narrative sequence of the Natural History, and thus adds to the experiential picture of the disease that is presented. This is, in effect, 'narrative through argument', as well as being 'argument through narrative', which is a 'fractal reflection' of the semantic organisation of the account as a whole.

#### *11.5.6.2 Generic underspecification redux*

Again, it is important to note the underspecifying nature of the generic substages. The stage of Supporting Evidence does not specify what kind of supporting statements are to unfold within it. There is theoretically an open choice as to whether Thucydides is to adopt further argumentation within it, or to report other events associated with the disease; he chooses the latter. His particular choice gains him significant argumentative leverage. It is as if he is signalling to the audience that he does not need to rely on his own reasoning to produce evidence; instead, it is as if the

events 'speak for themselves'. In any case, it is quite clear that the substages, and the stages as a whole, are quite definitely oriented towards the audience of the text, by subsuming further narrative events within the author's own evaluation of the phenomenon of the plague as a whole. The underspecification inherent in the stages allows this to happen, because it allows narrative events to stand as supporting evidence for a particular claim. Similarly, the underspecification means that other choices at other linguistic levels are responsible for the temporal (and perhaps causal) coordination of the events construed in the substages of the Differentiation and those of the Natural History.

### *11.5.6.3 Experience modelled in terms of antithesis*

We have already mentioned the major relational division in the Motivation stage— that of antithesis or contrast between the (potential) semiotic activities of others, and the (presumed) different character of Thucydides' unfolding of his account. This distinction is realised by the rhetorical relation of antithesis occurring in the environment of the generic stage of Motivation. The effect of this is to differentiate the author from 'others', and therefore to say that his semiotic activity stands out from that of 'others'.

This linguistic construal of contrast is carried over into the Differentiation stage of the account. However, the linguistic level at which this occurs, and the kinds of meaning being contrasted, differ in this stage. In the Differentiation stage, the construal of contrast becomes the major function of the stage, rather than just being simply a relationship between the meanings within the stage. In other words, as the account progresses, a relational semantic structure is 'shifted upwards' to later become the more global semantic environment in which other kinds of meaning-making and relationships of meaning take place.

Furthermore, the semantic domain in which the contrast is drawn is also shifted. In the Differentiation, the contrast is no longer explicitly between different kinds of semiotic activity that different people engage in. Instead, the antithesis is

'experientialised' or 'externalised'— that is, the representation and construal of the plague itself is marked off from other disease phenomena. The overall result of this is to say that the character of the plague is unusual and different to that of other kinds of diseases and seasonal illnesses. Thus, the experiential construal of the plague is in part informed by the logogenetically prior positioning of Thucydides relative to others in terms of the total discourse about the plague. This may be another instance of how the representation of events is in part structured according to the kind of linguistic activity in which Thucydides engages his audience. The structure of experience becomes like that between the author's text, other 'competing' accounts, and the audience of both.

At the same time, however, it must be acknowledged that the prior unfolding of the Motivation stage is not necessary for the development of the experiential contrast that is drawn in the Differentiation. The distinction between the plague and other previous diseases is perfectly interpretable and not 'inexplicable' in the absence of the Motivation stage. However, the distinction created in the Motivation 'primes' the audience for the subsequent experiential characterisation in the Differentiation. The result of this is that Thucydides' emphasis of the unusualness of the disease avoids being 'unmotivated'— instead, the picture being presented becomes more tightly integrated with Thucydides' interaction with his audience.

#### *11.5.6.4 The notion of unusualness as a 'primer' for the notion of historical significance*

The other effect of the construal of 'unusualness' is that it prepares the audience for Thucydides' subsequent portrayal of the events of the plague as having significant psychological and social impact, and thence significance for Thucydides' history as a whole, and therefore with what Thucydides is trying to explain to his audience throughout the course of his work. The implicit premise seems to be as follows. If the disease in its physical manifestation is unusual or out of the realm of expected, 'normal' experience, then it is highly likely that it will 'naturally' have consequences

for mental and social life in Athens, and therefore on the behaviour of the community as a whole as it deals with external political and military threats. Thus, the construal of unusualness is important for the purposes of the history as a whole.

In effect, the whole semiotic activity of construing contrast comes full circle. Thucydides' introduction to the events of the plague commences with a distinction between his account and that which anyone else might produce. This distinction is then transferred to the notion of the unusualness of the plague in contrast to other diseases, and then is implicitly carried into a description in subsequent stages of the account of the behaviour of the affected Athenian community which is seen a distinct from their behaviour 'pre-plague'. Such societal change directly addresses the concerns of the history as a whole, and its conscious reflection and construction of events in relation to each other. Thus the function of the Differentiation is quite directly involved in the conscious construction of knowledge with respect to the purpose of the history as a whole. It might be said that the experiential structure of the plague is also with respect to the literary functions of the *History*.

#### *11.5.6.5 Legitimation and the construction of significance*

In the Motivation stage, Thucydides gives legitimacy to his particular account by illustrating his direct involvement with the disease. As the discussion of the lexicogrammar will show, this is realised by the particular clause complexing relation in the environment of the generic stage. This has particular implications for the functions of the substages of the Differentiation, and in particular the relation between Claim and Supporting Evidence— in other words, the relation between generic substages. The previously constructed legitimacy increases the likelihood that this relation between Claim and Evidence will be accepted by the audience, and therefore the acceptance of the disease as being 'unusual'. Since the nature and scale of the social and psychological effects of the plague are predicated on this, such legitimacy is also important for constructing the historical significance of the events of the plague.



Therefore, this is another instance where meaning-making within the environment of the Motivation is 'translated upwards' into the inter-substage relationship between claim and evidence within the Differentiation. Thus, the notion of legitimacy is progressively incorporated into the semantic environment created by subsequent generic substages and ranking stages. Indeed, as will be evident from their consideration, the function of the Specific Consequence and General Consequence stages depends on a previously created semantic environment of legitimacy, and maintaining that legitimacy, which is required for the construction of historically significant events by the text.

### **11.5.7 Theories of people's behaviour: the Reaction stages**

There are two Reaction stages in this account. The common function of both these stages is to describe a particular behavioural event that is construed to arise out of the ongoing narrative events construed by the other generic stages of the account. These stages have internal substages which present the new behaviour or set of related behaviours, and then develop or elaborate on them, and then qualify them in some way. This kind of substaging is interesting because it is almost a direct reflection of logico-semantic types found in clause complexing, and thus may be a phenomenon that is agnate to the shifting-up of linguistic phenomena at lower levels into functions at the level of generic structure. Furthermore, some of these substages have functions that are analogous to those that might be found in an argumentative text, and thus also reflect the tying in of the construal of experience into a 'rhetorical framework' which is the basis for the conscious reflection on events.

#### *11.5.7.1 The first Reaction: elaboration and extension, claim and evidence*

The internal substaging of the first reaction stage is as follows:

**Precis ^ Development ^ Exception**

The *Precis* presents the particular behaviour that is said to arise in reaction to the physical effect of large numbers of people dying or falling ill. Following this, the *Development* substage presents this behaviour in more detail, and so 'elaborates' the picture presented in the *Precis*. The *Exception* substage describes an instance where the previously described behaviour does not apply—those who had survived the plague. As such, it extends the picture presented in the *Precis* and *Development*.

The substages here are very much experientially oriented—the first two stages build up the picture of the behaviour, and then the third modifies this picture in a 'subtractive' way. At the same time, however, this experiential construal is informed by an argument-type structure, where the *Precis* functions analogously to a 'claim', and the *Development* as 'evidence'. In addition, the *Exception* can also be seen as a kind of 'exception to the argument' so far presented to the audience about the kind of behaviour that was taking place in Athens. So these substages have a certain 'duality of function' which is analogous to the duality of rhetorical relations found in Herodotus' theory of the flooding of the Nile. This is further evidence of the blending of descriptive and argumentative resources that is a dominant feature of this account at the level of generic structure and substructure.

*11.5.7.2 The second Reaction: enhancement*

The second *Reaction* stage, in comparison to the first, tends to be rather more explicitly oriented to an argument put by the author to the audience, and also to conscious reflection on the significance of the new behavioural event that arises from people's experience of the social and civic disorder resulting from the plague. This is reflected in the substaging of this stage:

**Recapitulation ^ New Event ^ Comment ^ Parallel**

The Comment substage is an explicit authorial intervention— it comments directly on the reasonableness of the people's behaviour and opinion about the oracles that were circulating at that time, and 'in passing' what it is within human nature to do when placed in such a situation as the plague. This is a clear 'surfacing' of the argumentative framework that permeates this account, juxtaposed with the 'experientially oriented' New Event stage.

#### 11.5.7.2.1 Duality of function: internal and external enhancement

The Parallel substage describes similar events (consulting oracles) that were going on in places other than Athens at the time, and so tends to 'enhance' what is described in the New Event. At first sight this substage may appear to have a predominantly experiential role, because it describes temporally concurrent events. However, this stage is seen in the light of the Comment, which makes a claim about what most humans are likely to do in such a situation, and so the Parallel takes on the function of providing supporting evidence, just like the Supporting Evidence substages in the Differentiation stage earlier in the account. Again, there is a certain 'duality of function' of this substage. It is interesting to note the analogous phenomenon that occurs with the Analogy stage of Herodotus' theory of the Nile, which also has the function in its account of providing support for the main claim made towards the end of the theory. Here too, Thucydides is attempting to establish the generality of his claim about the behaviour of humans.

Although it has been argued here that the need to construct a particular argument is particularly prominent here, it is important not to overlook the function that this stage has in adding to the picture already presented. As well as the Parallel substage providing supporting evidence to the main point that Thucydides is making here, it is also adding to the overall scene of events surrounding the plague and thus has an 'experiential function' in constructing the 'total picture'. However, when embedded as it is within a framework oriented towards persuading an audience to a particular point

of view, it also becomes consciously constructed knowledge about the events, because the argumentative structure brings the construed events in relation to the other previously construed events, and more directly brings them into alignment with the act of author speaking to audience.

*11.5.7.3 Becoming increasingly argumentative: comparison of the first and second Reaction stages*

It is also worth noting that, despite the duality, the argumentative aspect of the account is more prominent in the second Reaction than in the first. This comes about because of the presence of a Comment stage in the second, which more explicitly brings authorial judgement to bear on the events. Secondly, the Recapitulation stage 'anaphorically' summarises the preceding events, from which the New Event is developed; this has the effect of the author explicitly 'bedding down' the preceding events for the audience in order to proceed to the next main point. This contrasts with the first Reaction stage, which has a *Precis* substage which 'cataphorically' construes the events about to be described, and which is homologous to the *Precis* substages of the *Specific* and *General Consequence* stages which, as subsequent discussion will show, have more of an 'experiential' function in the account as a whole. Thus it appears that the argumentative orientation of the Reaction stage is variable, and becomes increasingly oriented to this as the account unfolds and progresses towards its conclusion. As this occurs, the particular experiential construal of events becomes progressively subordinated to what Thucydides requires in presenting this account to an audience.

### **11.5.8 The bridge between plague and history: the Specific Consequence and General Consequence stages**

#### *11.5.8.1 The delicate distinction between Reaction and Consequence*

The Specific and General Consequence stages of the account are intended to describe events that occur as a consequence of the overall constellation of events associated with the plague. In this sense, there does not appear to be much difference in function between Consequence and Reaction stages in this account. However, the events of the Consequence stages are intended to be viewed as 'non-inferable' or 'non-predictable' from the previously construed events— instead, they are 'emergent' from these previous events. In contrast, the Reaction stages are at least implicitly predicated on some explanatory principle; in particular, there is some appeal to 'human nature' in these stages as explaining the particular reaction that ensues. The events of the first Reaction stage are explained by the previously construed high mortality and morbidity associated with the disease and the consequent 'natural' fear towards those who are sick. Those of the second Reaction stage are explained by the 'natural' tendency towards superstition in the face of catastrophic events. In contrast, the events of the first Specific Consequence are not readily predictable from 'human nature', but instead follow on from the confluence of various physical factors associated with Athens and the disease. The second General Consequence describes the attitudes and behaviour of people faced with disaster, but it does not readily identify from what these behaviours emerge, and does not offer or assume any particular explanatory principle of human behaviour to account for its emergence.

#### *11.5.8.2 The 'global' function of the Consequence stage*

This is admittedly a delicate distinction between Reaction and Consequence, and it may be quite possible that these kinds of stages share enough functions operating in

the account of the plague to be considered to be subtle variants of one single generic stage type. However, it can be seen that the Consequence stages also have a function in the *History* as a whole, because they identify events associated with the plague as being 'historically significant'. In other words, these events more directly connect to other events in the *History*, and to general themes that Thucydides is attempting to develop in his work as a whole. In the case of the Specific Consequence, the events described are a result of not only the onset of the plague, but also of the evacuation of the entire population of Athens to within Athens' city walls, which is described prior to the account of the plague<sup>349</sup>. Similarly, the General Consequence describes events that are directly relevant to the surrounding political and military account in the *History*—the change in social attitudes resulting from the plague are read against the subsequent decisions that Athens takes— in particular, the lack of political discipline and failure to 'follow through' with decisions in the war against the Spartans. In contrast, the events of the Reaction stages appear to only have effects limited to the period around the onset of the plague, and are implied to have limited or no relevance to other historical themes and events.

*11.5.8.3 The plague as both disease and history: two kinds of consciously produced knowledge*

Thus the Consequence stages of the account have a particular function not found in the Reaction stages: they serve to link the 'self-contained' account of the plague to overall arguments in the *History*, and to highlight those particular events of the account of the plague that Thucydides thinks are 'relevant' to his overall historiography. Thus the account of the plague appears to develop two kinds of knowledge which both develop from the previous construal of events of the plague. One kind is oriented to conscious reflection and knowledge construction about the nature of the plague itself; the other, to knowledge production in terms of constructing a historical account and theory of historical events. It is to the latter that the consequence stages are oriented.

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<sup>349</sup> See Thucydides 2.14.

*11.5.8.4 History developing out of the plague: the Consequence stages and text-like development of a theory*

Given this function of these generic stages, it is significant that they are positioned towards the end of the account of the plague. It is granted that in order to be developed, these stages must follow on from the events that are described in the other ranking stages of the account. For instance, the unusualness and large scale of the disease must be emphasised in order to justify the degree of social change that Thucydides describes. However, it is also as if Thucydides is developing a relatively self-contained account in such a way as to result in the construction of knowledge that is relevant to the purposes of the history. If we see this in terms of the textual meaning of clauses, where a Rheme is developed from a Theme, we come to the conclusion that the plague is eventually talked about in terms of its historical impact. A similar phenomenon occurs in Herodotus' theory of the Nile, where new information is constructed or 'wound out' of relatively stable points in the theory, and that this process occurs at the level of the lexicogrammar and clausally-oriented semantics. Here, we find that the description of the physical effects of the plague constitutes the 'stable point' out of which historical significance is developed; however, this process is now 'shifted upwards' a level, where the generic staging—both the functions of each stage and their relative sequencing—is in part responsible for this process.

*11.5.8.5 The covert linking of event description to historical writing*

As mentioned before, the difference in function between Reaction and Consequence stages is relatively slight. They both develop a point of reconstrual (whether this be anaphoric or cataphoric to the events reconstrued) and then develop a picture of ongoing events in a manner analogous to the exposition of an argument, and thus are

involved in conscious reflection and knowledge construction, only differing in how 'globally' or 'locally' applicable that knowledge is. However, this slight difference in function also becomes a resource which is exploited by Thucydides. It allows a relatively smooth transition from 'talking about the plague' to the exposition of the historically significant aspects of the events, which is a relatively covert way of 'blending' a relatively independent text into the larger historical text. It also provides a choice to an audience of how they wish to view the events of the plague— either as a subject in themselves worthy of further reflection, or as a major historical event that both supports themes about individual and social behaviour, and in part explains Athens' subsequent behaviour in its military and political engagement with itself and with other Greek states.

We have so far talked about both Consequence stages as having common functions, and this is to a large extent true. However, on reading the text of both stages, it becomes apparent that the General Consequence talks far more generally about the change of 'mindset' of the Athenians, whereas the Specific Consequence talks about specific actions and behaviours that people engaged in at the time of the plague. However, as with the other stages of this account, there is no constraint associated with either stage that specifies how 'general' or 'abstracted' the construed events in each stage are. This is most likely the function of choices at other linguistic levels— in particular, the difference in choice of process type in the lexicogrammar between the two stages. More will be said about this in the discussion of the lexicogrammar.

#### *11.5.8.6 Summary: arguing the relevance of experience to history*

In summary, the Specific and General Consequence stages have an explicit experiential orientation as do many of the other stages of the account. However, as with the other stages, its internal substaging reflects a development of the particular picture in terms analogous to that of the exposition of an argument, and thus the events presented are oriented to conscious reflection and knowledge production. This combination is also the basis of its delicate distinction from the Reaction, because each of these stages is associated with different kinds of knowledge production— that



is, knowledge that is oriented towards the Field and Mode of a particular kind of text or discourse. In this role, the Consequence stages are important for the development of historical knowledge and historical theory, and take the logogenetically prior development of the description of the plague as the 'stable point' from which such theory and conscious knowledge is developed.

## **11.6 Summary of the functions of the generic stages**

The overall picture of the generic structure of the account of the plague is complex, because there is a degree of heterogeneity of the internal structure of the stages. This variety ranges from 'descriptive' narrative development in the Natural History through to the argument-type exposition of particular states of affairs found in the Reaction and Consequence stages later in the account. This is a reflection of the different purposes of the text, and in particular the various parameters of Field and Mode in the context of situation. In all stages, the development of the overall 'picture' of the plague is informed by the need to consciously reflect on the events, in order to produce knowledge about the plague and its historical significance— that is, what impact it has on the subsequent political and military action of the historical account. The account as a result aims to produce 'understanding' of both the plague itself, its effect on the Athenian population at the time of its onset, and its lasting effect on the community psyche as is relevant to the telling of the history.

### **11.6.1 Narrative in a persuasive framework**

The production of this understanding depends on integrating narrative events within a larger argumentative framework. This is achieved in various ways. Firstly, descriptive narrative sections such as those of the Natural History are set around stages which are explicitly oriented towards the audience of the text, such as the Motivation stage. Secondly, such narrative stages follow on from other stages, where the latter stage has the function of expounding on the former, such as the respective

functions of *Precis* and *Natural History*. Thirdly, the internal substaging of many stages also has a similar argumentative structure, where there is a development of a particular state of affairs from a given starting point. This is particularly prominent in those stages whose function it is to more directly engender 'understanding' of the events in their own right and their linkage to, and significance for, the historical text as a whole. The positioning of these stages suggests that such understanding is essentially the development of a theory or conscious reflection based on the 'stable point' of the description of the physical effects of the plague itself.

### **11.6.2 Conscious knowledge through 'cultural forms'**

In this respect the account of the plague is like Herodotus' theory of the Nile— the end result is a theory which is developed in terms analogous or homologous to thematic progression and text development. Thus text, and semiotic activity in general, becomes the model for the production of knowledge and the development of the understanding of complex phenomena. However, the difference in this account is that this model becomes in part the function of generic staging rather than primarily the result of the semogenesis of the lexicogrammar. In any case, the account of the plague by Thucydides seems to suggest that the development of understanding of a complex phenomenon is achieved by modelling the presented picture in terms of text structure and progression, and that therefore the process of understanding undergone by the audience is semiotic in nature. When comparing this phenomenon with the same in Herodotus, it may be said that understanding of the complex entity of the plague is mediated by a progression through 'cultural forms', as well as perhaps relational semantic structure and lexicogrammatical semogenesis. However, further discussion of the rhetorical structure and lexicogrammar of the account is needed to fully bear this out.

### **11.6.3 Evolving functions: the dynamic remodelling of generic stages**

It should also be said that the various kinds of generic stages do not appear as static entities in this account, each with independently operating functions. Instead, the functions of each are in relation to each other, and their functions can be said to evolve in this account from what takes place in the other generic stages. This can be seen in the slightly differing function and substaging of the Reaction stages. The second Reaction is more oriented to argumentation than the first, and this may be because of the argumentative functions of the General Consequence stage that intervenes between the two. Thus it may be supposed that the argumentative orientation of the General Consequence stage provides an 'argumentative' semantic environment for the subsequent second Reaction stage.

This dynamic character of the generic stages is also reflected in the degree of 'fractality' present in the generic staging of the account. For instance, the function of the ranking *Precis* stage— to provide a 'semiotic base' from which both narrative and argumentative exposition can unfold— is reprised in the *Precis* substage found in one Reaction stage and the General Consequence stage, both of which function to construe events as being structured according to argument. Within the environment of stages more explicitly oriented to argumentation such as the *Differentiation*, it may be possible to see the *Precis* being 'fractally' repeated as a *Claim* substage; this is evidence of how the functions of the various stages interact with each other. The overall effect is that of the functions of prior generic stages 'snowballing' into subsequent stages, or becoming part of the co-text and therefore semantic environment of these later stages.

Thus these generic stages are not transported wholesale from the context of culture into the current text with static predefined functions; instead, they are each semantic environments with few constraints on what kinds of discourse functions they can adopt, only acquiring these more specific features when instantiated in a given text. In certain ways, this could be considered a microcosm of what is happening more

generally in classical period Greek culture, where whole genres were changing relatively rapidly. The functions of generic stages in the account change in the environment of preceding stages, just as the *historiê* of Herodotus evolved into the different focus of Thucydides' style of historiography, and the innovation of characters transformed the genre of tragedy from a performative religious ritual in celebration of gods to a performative examination by Euripides of the condition of ordinary humans 'in rags'. In all of these cases, the functions of the genre dynamically evolve in the environment of what has gone before.

## **CHAPTER 12**

### **Transforming experience into data and theory through semantic relations– rhetorical structure of Thucydides' account of the plague of Athens**

The rhetorical structure of the account of the plague is significantly complex, and displays considerable heterogeneity in its structure, similar to the heterogeneity of the generic structure. This variation in relational structure is in part a function of the varied roles this account plays– as a significant description of particular events 'in their own right', and the significance these events have for the History as a whole. Thus the rhetorical structure overall appears to be consonant with its environment of the context of situation, and in particular the particular varied 'settings' of Field.

#### **12.1 Overall scheme of rhetorical structure**

Viewing the rhetorical structure of the account of the plague synoptically, two features become quite obvious. If we establish the place in the account of the description of the disease and its physical effects on the individual (2.49-2.50) – the section which arouses modern 'scientific' interest– we find that it occupies a relatively 'subsidiary' level in the account of the plague as a whole. The less subsidiary parts of the account (2.51-2.54) are to do with the social and psychological effects and consequences of the plague.

### **12.1.1 History is more important: the foregrounding of the social and psychological aspects of the account**

This organisation is quite consistent with the Field of Thucydides' history as a whole. We have already noted that what Thucydides attempts to do in his *History* as a whole is to explain or theorise about the motivations of individuals and groups involved in historical events. Thus it would not be surprising that those parts of the account of the plague that are most relevant to explaining human behaviour and action are relatively foregrounded in the relational structure of the text. This is why the effects of the disease on individual and social psychology are, in fact, the more prominent parts of the account in rhetorical structure terms. The focus of modern readers on the scientific or biological aspects tends to obscure this point; however, the organisation of the account reflects the priorities of the historiography as a whole. It is not, in the first instance, oriented towards documenting the observed physical effects of the plague.

This finding in the rhetorical structure is at slight odds with the findings concerning the generic structure of the account. In terms of generic structure, the starting point of the account— and in a sense, the prominent part of the account— is the description of the physical effects of the plague, the psychological and social consequences of which are developed from this starting point. Furthermore, the function of the generic stages is generally oriented with reference to talking about the plague in its own right. It thus appears that the rhetorical structure of the account is oriented in a different direction towards the overall Field of the history. This may explain why authors in the ancient world, such as Seneca, evaluated and appreciated the account in terms of what it said about its effect on the population of Athens. They were in a sense responding to the rhetorical structure.

### **12.1.2 The physical effects of the disease as a 'digression'**

At the same time, however, this apparently 'subsidiary' portion of the account– the physical course of the disease in the individual– is elaborated to a significant degree. Most of the 'clusters' of rhetorical organisation have about two to three immediate constituents; however, the account of the disease itself is made up of six immediate units. This in itself shows that this section of the account is 'unusually' elaborated, with respect to the other sections of the account. It is by virtue of this that the description of the disease itself takes on the form of a 'digression' from the historical narrative. This comes about because it is a multiple co-nuclear construction positioned at a relatively 'subsidiary' level within the overall relational structure of the account. It is a part of the account that is given a form of 'special treatment', but nevertheless subject to the main concerns of the history as a whole.

### **12.1.3 Multinuclearity of the account of the disease itself coinciding with settings of Field**

Not only is the account of the physical aspects of the disease (particularly 2.49) made up of a number of immediate constituent units with respect to other parts of the account. In addition, these units form a multiple co-nuclear structure. This contrasts with the other parts of the account, where there may be two, or three at the most, co-nuclear constituents, with other text segments in satellite relations with them. At first this appears to suggest that there is a different kind of relational organisation of the text associated with respect to Field.

There is further evidence in Thucydides' account that suggests that there is such an association. There are certain other sections of the account that appear to have a co-nuclear structure, although in not quite as thoroughgoing a way as in section 2.49. In section 2.51, there is a constellation of clause complexes (clause complexes 21 to 28) that exhibits similar co-nuclearity. We find that this section of the account deals with Thucydides' *observations* about the ineffectiveness of treatment of the disease, built

upon the description of the physical characteristics of the disease. This can be contrasted with the relations that obtain between clause complexes 30 to 33, where quite extensive use is made of nucleus – satellite relations in the rhetorical structure. This particular section describes the reluctance of people in visiting or tending to the sick– in other words, it is concerned with describing the plague's social and psychological effects.

Thus it may be suggested that different kinds of tactic relationships are deployed with respect to a variation in Field. Considered more closely, this means that the construal of the psychological and social effects of the plague tends to consist of main and supporting sections of the text. In contrast, the description of the effects of the disease on the individual consist of a series of main sections of text relatively devoid of such support. This seems to suggest that for the description of physical effects there is little need felt by Thucydides (and perhaps his audience) for satellite segments of text which act in support of main claims.

#### **12.1.4 'Supported' description and the deployment of nucleus-satellite relations**

However, drawing a distinction in rhetorical structure terms between the physical on the one hand, and the psychological and social on the other, is not as clearcut as this. In the account, we find descriptions of the disease itself which do have a nucleus-satellite structure. For example, in clause complexes 13 to 15 (in section 2.49) we do have a nucleus-satellite relationship between clause complex 13, and 14 to 15. This is the author's assertion of the physical sequelae of the disease in survivors, in particular the loss of function in their extremities. This particular part of the description takes the form of a statement of overall effect (13.44-13.45), and then supporting description which describes the effect of the disease on specific parts of the body (14.46-15.52). Within this supporting part, there is a 'paratactic' division between



observable effects on particular extremities<sup>350</sup> (14.46-14.49) and observed long-lasting changes in behaviour (15.50-15.52). This nucleus – satellite configuration seems to come about because Thucydides wants to provide to his audience the general binding principle which the disease sequelae share.

In other words, nucleus - satellite structures seem to be used in order to partially 'theorise' about observed phenomena. Section 2.50 (clause complexes 16 to 20) exhibit a similar structure, and for similar reasons. In effect, Thucydides supports his claim that the plague was an unusual or extraordinary phenomenon (16.53-16.56) with a statement about the absence of animals that would be expected in the presence of corpses, and the probable reason for their absence (17.57-17.60). This is in turn supported through mention of the absence of specific kinds of animals (18.61-20.64). Again, this is a set of observations about the disease, but they are findings which are partially abstracted from the actual events, and which support, or themselves are supported by, other reported events. Such supported descriptions begin to take on the character of 'theorised' descriptions.

### **12.1.5 The fractality of generic substages and rhetorical relations**

This use of nucleus-satellite relations for the description of partially abstracted physical events has a parallel in the generic structure of the account. For instance, in considering the internal substaging of the Differentiation stage, we have a Claim which has the function of presenting an abstracted generalisation and evaluation about

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<sup>350</sup> Included in this description is the occurrence of blindness, where some survivors are construed to be deprived of the function of their eyes (14.49). It may be initially hard to consider the eyes as 'extremities' of the body; however, they may be included here because loss of function may be the perceived commonality here. In addition, it also allows for a certain degree of compression and ellipsis, for which Thucydides is noted and to which he is thought to have a predilection. For these comments on Thucydides' style, see Denniston (1952) p.18-22, 28-29, in amongst a discussion of how such 'compression' is achieved, such as through novel word compounding and the frequent use of abstracting nominalisations to stand for 'ordinary' participants in clauses.

the physical presentation of the disease. This is then supported by the specific physical descriptions in the Supporting Evidence substages. This is analogous to what is happening here in the rhetorical structure, and this may represent a certain degree of 'fractality' in the semantic configuration of the account.

We may go further and suggest that this phenomenon at the level of relational semantic structure has implications for the subsequent semantic environment created in later generic stages. These nucleus-satellite relationships occur in the Natural History, prior to any authorial evaluation of the events of the plague as a whole. It may be proposed that the rhetorical relation employed here affects the subsequent semantic environment to the point where the generic substaging in the later Differentiation is modelled according to this rhetorical relation.

#### **12.1.6 The association of rhetorical structure with Mode rather than Field**

From the above discussion, there appear to be no clearcut associations between rhetorical structure and Field. Instead, there appears to be a continuum from relatively 'untheorised' observations with a multiple co-nuclear structure, through to partially theorised observations with supporting satellite elements, and then to descriptions of psychological and social behaviour which have a quite definite nucleus-satellite configuration. Furthermore, as noted before from the discussion of Herodotus, rhetorical structure is most directly associated with Mode rather than Field. As a result, the relational structure of the text varies with the textual strategy adopted for particular aspects of the Field of the account, rather than directly with the actual 'subject matter' of segments of the account.

### **12.1.7 Co-variation between rhetorical structure and generic structure**

This change in the character of the rhetorical structure co-varies with the kind of generic staging, and the internal configuration of these stages. We have noted that the later generic stages, such as the Consequence stages, are progressively oriented towards aspects of Field that lie outside the scope of the account itself and which concern the general themes of the whole *History*. There is also a concurrent progression towards structuring the text more towards putting an argument for a certain position to the audience of the text. This progression coincides with the greater frequency of nucleus-satellite relations, and it may be the case that there may be a resonance between nucleus-satellite relations and the argumentative function of generic stages. This view can be supported with findings from the analysis of rhetorical structure of English texts, where the supporting argument stands in a satellite relation to the main claim or objective of the text, such as in advertisements and letters that attempt to lobby the reader to adopt a certain position and take action on that basis<sup>351</sup>.

## **12.2 Making experience 'theory-ready': a parallel between co-nuclearity, meronymy and taxonomy**

One interesting feature of the multiple co-nuclear structure is its similarity to taxonomic or meronymic structures used to describe semantic relationships between lexical items. As such, each clause complex of this description of the course of the disease stands in a direct part – whole relationship to the description as a whole, and

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<sup>351</sup> See, for instance, Mann, Matthiessen et al. (1992) p.66-67 (the discussion of the 'Zero Population Growth' letter) and Matthiessen and Thompson (1988) p.287-291 for a discussion of nucleus-satellite relations and their relationship to hypotaxis, and to claims supported by reasons or elaboration– in turn implying a certain 'fractality' in relational organisation across linguistic strata.

that each of these parts is of 'equal status'. In this regard, a similarity can also be drawn with the constituent structure of clauses when looking at the lexicogrammar from a predominantly structural perspective. Why this is important is that this may have some bearing on the conscious construction of knowledge, which may be considered an essential feature of theorisation and the conscious systematisation of information associated with a particular field of enquiry. An extract from the *Physician* text of the Hippocratic corpus will illustrate how it was possible to use the linguistic resources of Greek to consciously construct knowledge in a particular domain.

#### Hippocratic Corpus *Physician* 11

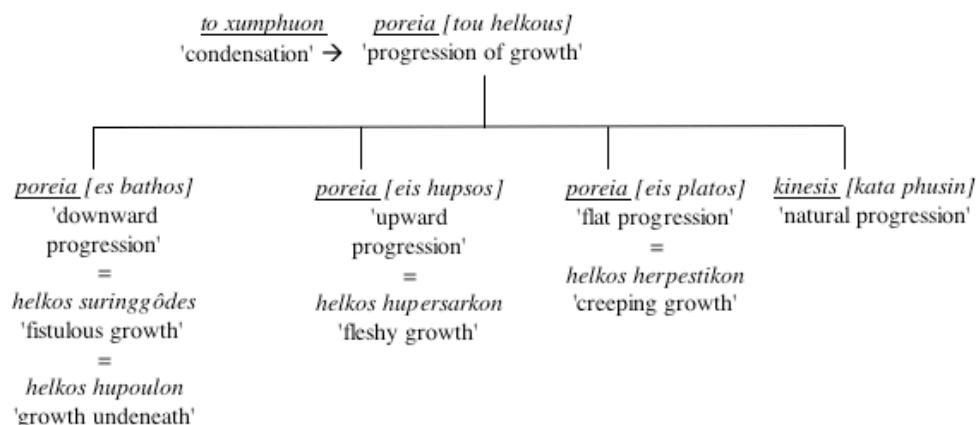
ta de helkēa dokei || poreias ekhein tessaras, mia men es bathos; ||| tauta d' esti ta suringgôdê kai ||[hosa hupoula esti||], kai ||[entosthen kekoilasmēna||]; ||| hê d' heterê eis hupsos, ta hupersarkeunta; ||| tritê de estin eis platos; ||| tauta d' esti ||[ta kalēomena herpêstika||]; ||| tetartê hodos estin, || hautê de monê kata phusin einai <<dokēei>> kinêsis. ||| hautai men oun xumphorai toīautai sarkos eisi, || pasai de koinai ||[tou xumphūontos||]; |||

Growths seem || to have four kinds of progression, one downwards– ||| these are fistulous growths and ||[those ones that are under the surface||], and ||[hollowed out from the inside||]. ||| Another kind is upwards, those which form excess tissue. ||| The third kind is laterally– ||| these are ||[what are called creeping growths||]. ||| The fourth kind is the one that alone <<seems>> to be a natural progression. ||| These are the kinds of things that happen to tissue, || and they all share the same ||[process of condensation||]. |||

This account presents essentially a taxonomy of terms to do with solid tumour growth progression. The effect of this is to classify growths themselves according to their method of progression. What such an account does is to allow a taxonomy of terms to be proposed, where each of the subtypes of growth are presumed to be constituents of equal status of a superordinate class of phenomena<sup>352</sup>.

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<sup>352</sup> For a parallel phenomenon in English in relatively abstract texts, see Martin and Rose (2003) p. 91-103 for the discussion of taxonomic relations built up through



**Figure 12-1 Taxonomic terms in Hippocratic Corpus *Physician 11***

The taxonomy of terms corresponds to the lexical semantic notions of hyponymy and superordinate<sup>353</sup>—each of the hyponymic terms is mutually exclusive, the hyponyms are said to 'entail' or 'logically imply' the superordinate, and each of the terms displays 'class membership' of the superordinate category. The important feature of this account is that it is explicitly oriented to the conscious construction of knowledge. It can be argued that multiple co-nuclear rhetorical structures are analogous to such taxonomic, and also meronymic<sup>354</sup>, semantic relationships.

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discourse—particularly taxonomy and meronymy. See especially *ibid.*, p.97-101 for the development of taxonomies in arguments.

<sup>353</sup> For a characterisation of the lexical semantic notions of hyponymy and superordinate, see Halliday and Hasan (1976) p. and Cruse (1986) p.88-92.

<sup>354</sup> For a discussion of meronymy and part-whole semantic relations, see Cruse (1986) p.157-164; also, see *ibid.*, p.169 for the distinction between segmental and functional

If we consider section 2.49 as a relatively discrete semantic unit which is in turn the realisation of a particular variation of Field and Mode with respect to the rest of the account– the physical effects on the individual versus its psychological and social effects– then the various construals of particular features of the disease are in a similar hierarchical relationship to the text unit. Firstly, they are semantically mutually exclusive– although the events may be causally or temporally linked, no one of them is equivalent or partially similar to any other<sup>355</sup>. Secondly, these events are of 'equal status' with respect to each other and to the text unit as a whole– none of the events stands in support of other events, or in a subsidiary role to them. Thirdly– in common with meronymic relationships– all of the events can be thought to 'constitute' the overall disease as construed by section 2.49. Thus it may be suggested that there is semantic 'isomorphism' between rhetorical co-nuclearity and lexical semantic taxonomy and meronymy. If so, it suggests that the account of the physical effects of the plague on the individual has a rhetorical structure such that the resulting construal of the disease is 'geared' towards the creation of hierarchically organised, conscious knowledge.

### **12.2.1 The similarity between taxonomy and meronymy**

So far, a homology has been proposed between the rhetorical co-nuclearity of Thucydides 2.49 and lexical semantic meronymy. We have also proposed that this co-nuclearity is geared towards the production of explicitly construed, conscious knowledge, because such knowledge often results in the genesis of meanings whose semantic relationships can be described as taxonomic. However, at this stage it has

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('systemic') meronymy. See also Halliday and Hasan (1989) p.80-81ff. for its relevance to lexical cohesion and therefore to textual coherence.

<sup>355</sup> In addition, one may also argue that the semantic relations are 'meronymic' in character, because there is no single semantic relation type between the constituent parts. For the multivariate nature of semantic relationships between meronyms and a 'holonym', degrees of optionality of various kinds of meronyms, and the way that many meronyms can participate in more than one kind of functional meronymy, see Cruse (1986) p.160-166.

just been assumed that the relationships within taxonomies and part-whole semantic structures are sufficiently similar in nature to allow one to say that meronymic rhetorical relations are at least compatible with, if not conducive to, taxonomically organised, explicitly construed knowledge.

*12.2.1.1 The differences: different points along a cline of text instantiation*

It is quite possible to enumerate several differences between the two. For instance, as mentioned before, meronymic relationships are multivariate, whereas the relations between hyponyms and their superordinate tend to be relatively restricted— this results in there being less of a hierarchy of classes in meronymies<sup>356</sup>. Secondly, meronymies tend to be more closely tied to what can be experienced in a given situation— for instance, the part-whole relationships that can be used to construe an object such as a *car* or *flower* can be (potentially) explored from the one given context of situation. This contrasts with taxonomies, which are generally built up through different texts that realise different specific contexts of situation. If we consider the taxonomy of tumours that is proposed in the above cited section of the Hippocratic corpus, it is presumed that the proposed framework has been built up through a number of texts of agnate type— that is, through the construals of different instances of similar contexts of situation at different times. The account 'merely', as it were, makes explicit the taxonomic relations that have been built up out of previous situations<sup>357</sup>. Thus it could be argued that the differences between taxonomy and meronymy can be described with respect to a cline of instantiation of text.

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<sup>356</sup> See Cruse (1986) p.178.

<sup>357</sup> See *ibid.*, p.178. Cruse appears to think that taxonomies are more 'abstract' than meronymies, and that this as a result is a significant point of difference between the two. However, ultimately many taxonomies, as has been explained above, do derive from 'concrete' experience, and so it would be more accurate to say that taxonomies are more likely to be more abstracted from a single semiotic construal of a given single context of situation than meronymies might be.

*12.2.1.2 Similarities: mutually exclusive members of a semantic area*

However, there are some quite fundamental similarities between taxonomies and meronymies, and this commonality is pertinent to the issue of whether rhetorical co-nuclearity is homologous to the lexicogrammatically construed taxonomies associated with consciously constructed knowledge. The comment in both is that of subdivision of a given semantic entity into and a 'type of exclusion between the results of the subdivision'; in addition, the subdivided units have a relationship of 'inclusion' with hierarchically 'higher' units<sup>358</sup>. Furthermore, a taxonomy can be considered a species of meronymy, but the meronymy is that of a semantic entity that has been construed by abstraction from a number of text instances. Because of these semantic relationships between members of a taxonomy and meronymy, two properties emerge: entities that stand in relation to one another, and are distinct from one another, but also which cohere together through their superordinate or holonymic terms to form a larger network of semantic relationships<sup>359</sup>.

It is these organisational properties that are also shared with a text or text segment with a multiple co-nuclear structure. Thus we would expect that such a text construes, or aims to construe, a coherent semantic configuration in keeping with the Field and Mode associated with the text, but also one with defined subsections that stand in relation to each other and are presumed to be distinct semantic entities in their own right. The basis of this distinctness is in terms of mutual exclusion— one nucleus does not semantically encompass or overlap with any other.

Thus we might suppose that such multiple co-nuclearity in the relational semantic structure of the text is homologous with meronymic and taxonomic structures which are construed the meanings which are realised directly by the lexicogrammar for the conscious creation and construal of knowledge about a particular domain of the experienced world. In other words, the rhetorical structure of the account of the

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<sup>358</sup> *ibid.*, p.179.

<sup>359</sup> See *ibid.*



physical manifestation of the disease affords at least the potential for the text to be oriented towards the later production of texts that propound a particular theoretical conception. Put simply, the text of this section of the account appears to be organised as 'data' or a semiotic 'substrate' on which a theory might be built.

### **12.2.2 From data to taxonomy and meronymy to 'meta-taxonomy'**

It may be possible to see how such taxonomic and meronymic organisation may lead to its incorporation into a theory. As noted before, such organisation involves an articulation of a particular semantic 'area' created by the text into units that stand in relation to each other through the relationship of mutual exclusion, and yet cohere through their superordinate or holonymic terms so as to claim 'membership' of the given semantic area. However, because of the principle of mutual exclusion, each 'constituent' element has the potential to be considered independently of the other elements. It is then possible for comparison of these units with those derived from a text that construes another phenomenon, and for the similarities and differences between the units of the two accounts to be talked about.

Thus texts, and the events or phenomena that they construe, can be co-classified or otherwise on the basis of the perceived similarity or dissimilarity of the semantic units in each of the texts. As a result, a new, more abstract 'meta-taxonomy' derived from such comparison may arise, thus continuing the process of consciously creating knowledge, and modelling at an abstract level the collection of related phenomena that the original 'data' described. The extract from *Physician* from the Hippocratic corpus embodies the construction of such a 'meta-taxonomy'. The description of the physical effects of the plague by Thucydides is rhetorically structured in such a way that it can be incorporated by texts that aim to taxonomically and consciously construct knowledge.

## **12.3 Rhetorical structure: logico-semantic relations and orientation**

It is important to note the kinds of semantic connection and orientation in Thucydides' account. The features in this regard build upon what has been seen in Herodotus' account of the flooding of the Nile, including the presence of dually oriented relations; however, they seem not to occur in the account of the physical effects of the disease, but rather are employed when describing its psychological and social effects.

### **12.3.1 Single externally oriented logico-semantic relations and 'theory-ready' data**

There appear to be some associations between many of the single logico-semantic relations and the degree of co-nuclearity in the account—specifically, in the description of the course of the disease, there is a predominant use of additive extension in the multiple co-nuclear structure. Indeed, in the account as a whole, additive extension is a common feature of the rhetorical structure, occurs with 'paratactic' rhetorical relations, and is consonant with the requirements of Field and Mode, which includes the potential for the account to be used in future texts that consciously construct knowledge.

#### *12.3.1.1 Additive extension*

The relation of additive extension is predominant in the account of the physical course of the disease (Thucydides 2.49) and appears to complement the multiple co-nuclear structure of this section. It is associated in the lexicogrammar with the use of the imperfect tense in the finite main verbs (clauses 3.6, 6.16, 7.20, 11.20, 15.50). This can be contrasted with other kinds of single logico-semantic relation in section 2.49—for instance, clause 9.27 employs an aorist (with perfective aspect) in association with

a temporally enhancing rhetorical relation, and within this rhetorical span a pluperfect tense verb is used, also with perfective aspect (clause 10.29).

As may be guessed from the label given to it, the imperfect tense is used to primarily construe a past ongoing action, and so, with a more modern linguistic interpretation, construes both past tense and a habitual or continuous imperfective aspect, as distinct from the simple past or 'aorist' tense<sup>360</sup>. Two observations can be made about the use of the imperfect tense at these points. Because of its imperfective aspect, the imperfect tense in Greek can be used to construe ongoing, habitual states of affairs as does the present tense. Therefore it can be used to describe a state of affairs that is generally thought to be the case, and so here is used to construe what the course of the disease was generally like, with less emphasis on individual instances of the disease. This results in the recognised use of imperfect tense verbs as an 'imperfect of description', for the construal of ongoing states of affairs<sup>361</sup>.

In this sense, the function of the imperfect here is like that of the present tense verbs in Herodotus' account of the Nile. Construal of the events of the course of the disease in this way is consonant with the use of additive extension, because the construal of events as being ongoing reduces the chance of other connected events being construed as being temporally prior or successive to these, as there is no implied start or end point to the events. Even though there is a definite sequence of events in the course of the disease, this is expressed primarily in the clause complexing relations in the lexicogrammar, as later discussion will show, and not through the rhetorical relations. Thus the relational semantic structure of the text does not have primary 'responsibility' for imposing a temporal framework on events. Instead, the rhetorical structure in this section of the account of the plague is oriented to consciously adding information about the disease. In conjunction with the multiple co-nuclearity of the account, this information is built up with the potential for it to be theorised— that is, incorporated

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<sup>360</sup> See Smyth and Messing (1974) p.423-424 for the 'traditional' description of the imperfect tense in Greek; for its corresponding interpretation as tense and aspect, see Comrie (1981) p.24-26, 71-72.

<sup>361</sup> See Smyth and Messing (1974) p.425.

into a later consciously theoretical, consciously modelling account of the disease and other phenomena to which it is thought to be related.

12.3.1.2 *Possible objections: the use of imperfect tense in battle narratives*

However, in order to settle this issue, we must address the use of the imperfect in ancient Greek narrative in general. Narrative text in Herodotus and Thucydides makes frequent use of the imperfect to construe events within a particular battle scene, or to describe a particular military operation. The following account of the siege of Plataea illustrates this well.

Thucydides 3.22

hoi d', <<epeidê pareskeüasto autois,>> têtêrantes nukta kheimerion hudati kai anemoi kai ham' aselênon || **exêisan**; ||| **hêgounto** de ||[hoiper kai tês peiras aitioi êsan]], kai proton men tên taphron diêbêsan || hê **perieikhen** autous, || epeita prosemeixan tôi teikhei tôn polemion || lathontes tous phulakas, || ana to skoteion men ou prôidontôn autôn, || psophôi de tôi ek tou ||[prosienai autous || antipatagountos tou anemou]] ou katakousantôn; ||| hama de kai diekhontes polu || **êisan**, || hopôs ta hopla mê kroûomena || pros allêla aithêsin parekhoi. ||| êsan de eustaleis te têtêi hoplisei || kai ton aristeron monon poda hupodedemenoi asphaleias heneka tês pros ton pêlon. ||| kata oun metapurgion **prosemisgon** pros tas epalxeis, || eidotes || hoti erêmoi eisi, || prôtôn men hoi tas klimakas pherontes, || kai prosethesan; ||| epeita psiloi dôdeka xun xiphidôi kai thôraki **anebainon**, || hôn **hegeito** Ammeas ho Koroibou || kai prôtos anebê; ||| ||[meta de auton hoi hepomenoi, hex eph' hekateron tôn purgon]], **anebainon**. ||| epeita psiloi alloi meta toutous xun doratiois **ekhoroun**, || hois heteroi katopin tas aspidas **epheron**, || hopôs ekeinôi rhâion probainoien, || kai **emellon** || dôsein || hopote pros tois polemiois eien. |||

But they, <<when it had been prepared for them>>, kept watch during a moonless night which was stormy with rain and wind, || and then **sallied forth**; those ||[who were responsible for the attempt]] **led**

them out, || first crossed the ditch || which **surrounded** them, || and then they made an assault on the enemy wall || without their sentries noticing– || the enemy not anticipating them in the darkness, || but in the night not hearing them because of [[them going out || while the wind was blowing against them]]; || at the same time **they were proceeding** || widely spaced apart, || so that their arms would not provide detection of them || by banging against each other. ||| But they went on their way with their armour in good order || and with only their left foot shod to get a secure grip in the mud. ||| And so they **made an attack** upon the battlements along the watchtowers, || seeing || that they were deserted, || by first bringing ladders || and putting them against them; ||| then twelve lightly armed soldiers with bayonets and breastplates **climbed up**, || whose leader was Ammeas the son of Koroibos– || he was the first to ascend; ||| [[those following his command]] **went up** after him, six for each of the towers. ||| Then the rest of the light infantry with these men **went forward** with spears, || for whom others **brought** shields as reflective markers, || so that they might proceed more easily, || and they **intended** to give them || when they were up at the enemy. |||

Several of the processes involved are construed with the imperfect tense– shown in bold lettering in the Greek and in the translation. These processes either construe events or conditions that surround the main action of the participants<sup>362</sup> (**perieikhen** 'it was surrounding', **hegeito** 'he was in command') or construe the processes in which *a group of people* are engaged over a period of time– that process implied to be leading to a particular outcome. Thus two functions of the imperfect are on display here– the first, to construe ongoing states and processes, the other to make a generalisation about the activities of several people (**anebainon** 'they climbed up', **ekhoroun** 'they proceeded').

It is this latter use that bears most resemblance to its deployment in the account of the plague. In the construal of the disease, the various physical features described are also generalisations– they are intended to construe what was generally the case amongst individual sufferers thought to afflicted by the disease, not matter at what time they fell sick relative to each other, just as the imperfect construes in general what individual soldiers do in a battle at different points over a given period of time. So, even in a relatively 'theory-free' description such as this, there is always some degree of abstraction across time and between individuals involved in a given activity.

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<sup>362</sup> This is generally taken as a common 'discourse function' of the imperfect in ancient Greek prose– see Luraghi (1995) p.374-375.

Thus, the imperfective aspect of the imperfect tense of Greek not only expresses a 'spread' of the event or process across a period of time, but also between individual entities engaged in that process. That is, there is not only generalisation across time, but also between individuals.

Taking this observation into account, it then might be objected that there is nothing terribly 'special' about the use of imperfect tense in the account of the plague, since it is used with the same functions in many narratives, such as battle narrative. However, it can equally be said that the deployment of the imperfect in *both* the account of the plague and the account of a battle are 'special', and are both geared in some way to the production of conscious knowledge of events. In both, the imperfect has the function of simultaneous generalisation over both space (between individuals) and time— this cannot be (fully) explained by other linguistic phenomena such as the use of the third person plural in conjunction with the one event or process.

### **12.3.2 Single internally oriented relations: argument and evaluation**

Externally oriented relations of a single type occur on occasions in this account, in total four times. Three of these are clustered in the description of the social and psychological sequelae of the account (29.84, 33.98, 53.175) and are directly related to providing a supporting explanation of the behaviour of people in the face of the plague and its victims. The one exception (18.61) is located in an argument that emphasises the unnaturalness and peculiarity of the disease, and follows an explicit signalling to the audience that evidence for the claim is about to be presented (*tekmêrion de*, clause 17.60).

It is as if the orientation of the text predominantly to the audience occurs when details of the plague as relevant to social and psychological events— essentially, the 'main business' of the history as a whole— is explained. In each case of the cluster of three internal rhetorical relations, the text span is introduced by the particle *gar*, which in

each case is fulfilling its 'explanatory' role<sup>363</sup>. This occurs within the environment of the generic stages that most directly relate the events surrounding the plague to the themes being developed in the *History* overall.

If we consider the one 'outlying' internal rhetorical relation of evidence, within the Differentiation stage of the account, we find that it works in support of not a particular generalisation about physical findings, but instead of how one should *evaluate* the magnitude of the effects of the plague— that it was 'unusual' and 'peculiar'. Thucydides is most probably invoking what might be termed a particular selection in the 'appraisal' systems of Greek— that is, the systems of meaning in the language that enact a speaker or writer's attitude to what they are saying. In particular, Thucydides can be described here as making a particular 'appreciation' of the value of a particular experienced entity (the plague), and in particular its impact<sup>364</sup>. As such, even in this 'outlying' case, and overtly in the description of the physical manifestation of the disease, the internal rhetorical relation is in support of interpersonal meanings being enacted between writer and audience, as are the other instances of single external rhetorical relations.

### 12.3.3 Concurrent logico-semantic relations

In frequent parts of the account, there are two or more concurrent rhetorical relations operating within the same orientation type. These fall into two categories. The first is that of concurrent elaboration and extension or elaboration and temporal enhancement, and this is due to the dual functions of the account in both describing a phenomenon and consciously constructing knowledge about it; in this regard, it is homologous to what happens in Herodotus' account of the Nile. The other type of

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<sup>363</sup> For this function of this particle, see Denniston (1954) p.58-60, which explains the general rhetorically internal nature of this particle, for text spans that either furnish an 'explanation' of preceding text, or sometimes denoting 'motive'. The use of this particle is also noted after explicit signalling by clauses of evidence being presented, such as *tekmêrion de* 'this is the evidence'; however, in the account of the plague, it is not used after this kind of clause.

<sup>364</sup> See Martin and Rose (2003), p.32-43, 63-65.

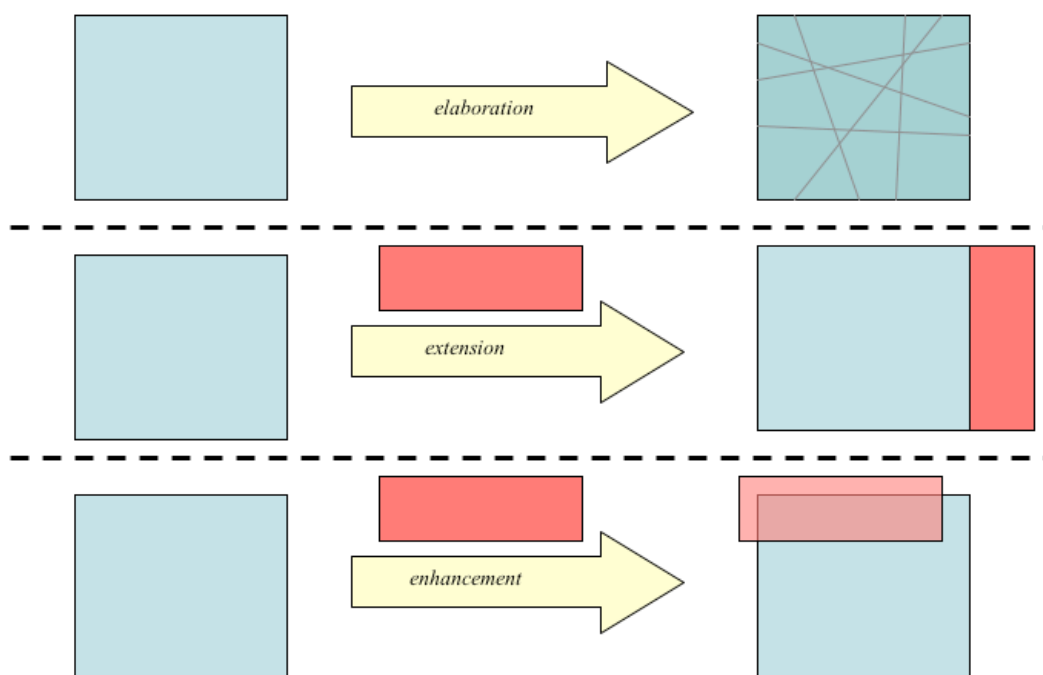
dual concurrent relations within a single orientation is between enhancement types. This is the result of the common lexicogrammatical resources used to construe temporal sequence and causation, and, like in Herodotus, is the result of the concurrent need to describe a phenomenon and provide a theoretical account of causation.

#### **12.3.4 Turning the periphery into the core: dual expansion types**

Four rhetorical relations (3.6, 13.41, 36.106, 44.132) are of dual expansion type. One of these relations (13.41) is in fact a threefold rhetorical relation; it is included here because there is duality between two kinds of expansion (elaboration and enhancement), as well as two types of enhancement. Of these, one is extending and elaborating (3.6), one (13.41) is elaborating and enhancing, and two (36.106, 44.132) are extending and enhancing.

Three out of four of these involve a duality between one expansion type and enhancement. This is significant, because this duality reflects the dual functions of the account of the plague— both to describe the temporal manner of unfolding of the disease, and also to consciously construct knowledge about the phenomenon. We have already noted about how extending rhetorical relations have the function of building up a particular 'picture' in a stepwise additive or subtractive way, and elaborating relations articulate an already established picture in more detail, or re-articulate it in 'equivalent' terms.





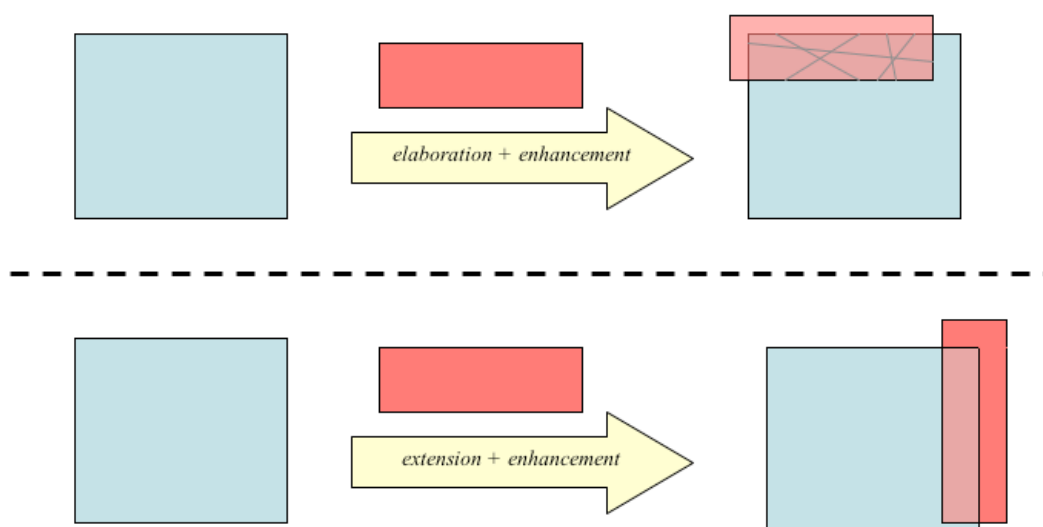
**Figure 12-2 Pictorial representation of single expansion types**

However, when either of these are combined with enhancement, the effects are naturally twofold. Enhancing relations typically function to provide more circumstantial information around another unit of information– to provide the 'ground' against which it is 'seen'. This is implicit in enhancement as being characterised as information that 'qualifies' another piece of information<sup>365</sup>; but further evidence can be found in the subtyping of enhancement, which can be shown to have similar organisation in terms of expansion types as Circumstances at the level of the single clause<sup>366</sup>. When this is simultaneously combined with other expansion types, this 'circumstantial' information actively changes the overall 'picture of reality' being

<sup>365</sup> See Halliday (1994) p.232.

<sup>366</sup> See Matthiessen (1995) p.333-334 which describes circumstantial systems in the ideational grammar of the clause in terms of similar expansion types as for the logico-semantic relation types found in clause complexing.

construed; rather than just being more 'peripheral' to the complex phenomenon being construed, it becomes more 'obligatory'.



**Figure 12-3 Pictorial representation of dual concurrent expansion types**

In effect, this dual expansion type becomes the analogue in the rhetorical structure of a functional clause element, the obligatoriness of which lies in between that of a direct participant and a Circumstance in the clause<sup>367</sup>. So it might be argued that the function of combining enhancement with another expansion type is to draw a particular piece of 'circumstantial' information more closely into the 'core' elements of the picture being presented.

<sup>367</sup> For this model of the obligatoriness of functional clause elements in terms of a 'cline of nuclearity / peripherality', see Matthiessen (1995) p.197.

### **12.3.5 Occurrence of dual expansion at major transition points**

It is perhaps no coincidence that in two of the four examples, these dual relations occur at particular, major transitions in the account of the plague. They occur at the transition from describing the course of the disease to describing the sequelae (13.41), a minor transition to an observation about acquired immunity to people's attitudes and evaluation of the survivors of the plague (36.106), and a major transition from the behaviour of individuals to overall patterns of societal disruption and disorder (44.132). It is as if these rhetorical relations in this account of Thucydides have the function of tying narrative-type descriptions back into the core activity of the account of building up an overall picture of the disease and constructing a body of conscious knowledge about the phenomenon. This feature of the rhetorical structure works behind the overt 'simple description' which the account purports to be, in order to be a conscious formulation of the events. This is one of the features of the semantic configuration of the text that militate against the notion of the account being a 'theory-free' description. It is, again, further evidence that it is description orientated or geared towards the production of conscious, theorised knowledge.

### **12.3.6 Dual enhancing types: the co-modelling of time and cause**

Dual concurrent enhancement types occur four times in this account (9.27, 13.41, 40.119, 51.165). This number includes the threefold oriented rhetorical relation described previously (13.41). This duality is mostly between the temporal and causal-conditional subtypes of enhancement, and, as with Herodotus, this kind of dual enhancement can be explained by the dual purposes of the account and the tendency for both types of enhancement to be construed through the same kinds of hypotactic arrangement and wording.

Temporally successive stages of the disease, such as its natural course and its sequelae are also construed in terms of a rhetorical relation of result. This is achieved by the use of particles such as *gar*, which has the force of relating the clause as an

explanation of another clause or complex of clauses<sup>368</sup>. In the case of clause complex 13, within this there is the conjunction *kai* 'and' (13.44). As in English, this conjunction can be used for both temporal succession and additive extension in clause complexes and rhetorical relationships. In this case, because this clause complexing relation occurs within a clause complex that is framed by an overall rhetorical relation of explanation to the preceding text, this clause complexing relation tends to be interpreted as an enhancing one, and thus it contributes a sense of temporal succession to the causal rhetorical relation that relates clause complex 13 to the previous text.

#### *12.3.6.1 The relationship of dual enhancement to Field*

The duality is effected by the conjunctions and particles as described above. However, the reason why they are deployed at all lies with the purposes of the account— that is, to provide a clear temporal sequence of events that comprise the phenomenon, and to construe the phenomenon in such terms as allows the construal to be used in any future theoretical account of the disease or of other related phenomena. We have seen from Herodotus that construing causative relationships is instrumental in creating a theoretical, explanatory account, and Thucydides covertly introduces such semantic relations here, and as such there is a covert theory of the disease being built at least in part through such rhetorical relations. It only fails to be an overt theory, because, unlike Herodotus' account, there is no reconstrual of these causative relationships into a statement of causation, such as attributing various elements of the phenomenon as 'responsible' in relational process clauses. Such reconstrual is not found here, because this would contradict Thucydides' earlier overt refusal to speculate on causation, and overt emphasis on 'plain description'. However, his covert use of causal relations in combination with temporal relations pushes the account substantially towards a consciously theoretical formulation, and opens up the potential for the account to be drawn further in that direction, either by himself or by others who engage with his account. Indeed, part of the reason why this account may

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<sup>368</sup> For the uses of this particle, see Denniston (1954) p.56-58; the force of *gar* is predominantly explanatory, but can also have the force of also confirming what has been said previously.

be considered 'scientific' is, as with Herodotus' account and even in the conscious reflection in Homer, because it leaves the task only 'half done' in argumentative terms. There is further potential for anyone responding to the account to build on these features; however it is such that any further expounding of causation is done in the terms of the account that Thucydides has construed here. More will be said about this issue in the consideration of the lexicogrammar of the account.

*12.3.6.2 Cause/time versus explanation: interaction of dual enhancing types with single internal types*

Single internal relations occur four times in this account (18.61, 29.84, 33.98, 53.175). One of these is associated with an explicit presentation of evidence (18.61); the others fall into the category of the author providing a reason to his audience for the particular observations that he makes. In all of these cases, this is restricted to the descriptions of people's behaviour in the face of the plague and the sick. As such, there appears to be some segregation of rhetorical structure which depends on the particular aspect of the disease which he is talking about— physical, psychological or social. There appears to be a different 'mode of talking' associated with each— an 'externally' oriented one in terms of time, cause and its combination in regards to the physical disease, and an 'internally' oriented one when talking about the behaviour of people. This difference underlies at least in part the variation in Field as the account progresses.

It is relatively straightforward to relate an internally mediated rhetorical structure to an overall argument about the effects of the disease, since an argument of this kind, in the end, has to be of internal orientation. To argue a particular case, one needs to orient to an audience. However, it is less easy with a predominantly external rhetorical structure to convince an audience that the particular picture that the author is portraying is a valid one. Invoking the relation of cause acts as a 'proxy' for internal relations in such cases, because, as has been explained before in the discussion of Herodotus, such relations are used to construe sets of spatially and / or temporally

linked phenomena as being 'relevant' for the audience to react to and to engage with, because they are more central concerns of the Field of the text. Just as the internal relations of reason and evidence occur at significant points of an argument, the external relations of cause and result occur at important points of the overall picture of the disease. They help to construe the important 'articulatory points' of the portrayal of the disease, and establish major relationships between 'parts' of that picture. Again, as in Herodotus, rhetorical relations of cause and result are employed to structure the overall construal in an analogous way to the structure of claim and evidence or reasoning in an argument that is offered to an audience. This again is evidence of a tendency to construe complex phenomena in terms of text structure.

## **12.4 Overall patterns of rhetorical structure**

The rhetorical structure of this account is complex in nature. This is a function of both the number and variety of rhetorical relations in the account. The 'rhetorical heterogeneity' results in an account of the disease and its physical, psychological and social consequences, presented as a number of relatively generalised narrative events which are framed in terms of an argumentative structure, in order to persuade the audience of the account of the particular 'take' on events that Thucydides adopts. The experienced world is 'theorised' in this way, because what is experienced is set into a persuasive framework by the rhetorical structure within the environment of the various generic stages and substages.

The rhetorical structure of the account was also found to co-vary with the particular aspects of Field highlighted in different stages. In particular, there is a contrast between the 'co-multinuclear' configuration of the physical aspects of the disease, and the nucleus-satellite character of propositions to do with the psychological and social dimension of the plague. In the case of the latter, it is structured more towards promulgating a particular argument, assessment or perspective on these events with respect to the more 'global' concerns of the Field of the *History* as a whole. This appears to resonate with the internal organisation of the relevant generic stages. In

many ways, this is an extension of the mixing of argument and generalised narrative found in Herodotus.

The physical course of the disease itself is 'packaged' in such a way by the semantic structure of the text so that it can be the subject of subsequent conscious reflection and theorisation in others' own semiotic activity. This is because the events are structured in such a way that they constitute 'semantic units' which have the potential to be brought into taxonomic or meronomic relationship with each other, and thence into a hierarchically organised network of semantic relationships that underlie the explicit and conscious construction of theoretical knowledge. Judging from the evidence in the Hippocratic corpus, such explicit knowledge was structured in this way, and the 'data'— the theorised experience— presented by Thucydides in his account can participate in similar frameworks. The linguistic resources used to generalise the narrative beyond any one instance or time period of occurrence transforms the temporally coordinated events of the plague into the gradually assembled body of an overall 'picture' or body of knowledge— in linguistic terms, enhancement is transformed into extension and elaboration. Thucydides, in his account of the plague, never overtly proposes a theory of disease, or a theory of human nature relevant to the assessment of historical events. However, the rhetorical structure of the account is such that the description of events that he offers is done with a view to the eventual proposal or accretion of a theoretical understanding of those events at a later time.

## **CHAPTER 13**

### **An 'objective' mapping of the material in terms of the semiotic: the lexicogrammar of Thucydides' account of the plague of Athens**

The lexicogrammar of the account of the plague will now be characterised, and its role in the account explained. The phenomena at the level of wording in the account has a crucial role in constructing a 'covert' theory of the disease, despite Thucydides' professed avoidance of proposing a theory in the Differentiation stage of the account. The onset and sequelae of the plague in Athens is theorised in two different, concurrent ways, and these theories are oriented to different aspects of Field.

The first of these relates to how humans are positioned with respect to their physical environment, and in particular with respect to seemingly random events that occur in that environment. This is principally construed through selections of ergativity made in association with the plague and human participants in the clauses of the account. In many ways, this particular patterning of agency is reminiscent of the portrayal of humans in Greek tragedy, and thus this pattern construes pathos, which in turn subserves the literary functions of the account, and has some bearing on constructing the event's historical significance.

The second covert theory in the account is of the plague itself considered as a phenomenon worthy of description of such a kind as can be incorporated into an explanatory account. To this end, the development of this picture through the lexicogrammar is like that of the construction of the Nile's behaviour by Herodotus—the processes of the plague are developed out of 'stable points', and the processes involved in the physical effect of the plague on the individual, culminate in the construction of new 'stable points' which represent the observed symptoms and signs



of the plague. In this way, although appearing to be an unmediated description of events, the account of the plague is also explanatory. In this way, the description of the plague is modelled in terms of cause and effect, rather than simply 'describing' what is happening. A theory of the disease is thus constructed, as is in Herodotus' account of the Nile, where the construal of events is modelled on the unfolding of text. As with Herodotus and Homer, however, there are 'experiential gaps' left in the account, which, in the surrounding rhetorical, generic and contextual environment, are intended to engage the audience in further reflection upon the phenomenon being described— an important part of viewing the account as 'scientific'.

An important element associated with these two theories is Thucydides' positioning of himself with respect to his audience and to those who might potentially offer alternative accounts of the plague. This is mediated through the lexicogrammar by the construal of those who do and might speak about the plague, in terms of their verbal processes and their overt construal in clauses. In this regard there is significant contrast between Thucydides' construal of himself and his portrayal of others. The overall effect of this is to construct his account as being 'objective', in contrast to the 'subjectivity' of others, and thus grant persuasive leverage to his account. In this way, it may be possible to see how persuasive strategies have a direct realisation in the lexicogrammar.

Thus the lexicogrammar has the function of construing a credible speaker of the text, from which is projected a description of a complex phenomenon that embodies two covert theories of the disease. These two theories are oriented to different aspects of the Field and Mode of the account— to present the plague 'as explainable phenomenon' and 'as historical literature'.

## 13.1 Nothing can be done about the plague: the agency of the plague and the non-agency of humans

There is a considerable difference between the kinds of processes in which the plague is construed and that which involve human participants. This difference in experiential patterning presents an overall picture of where humans stand in relation to the plague, and by inference to external events. This picture of the relationship of the plague to the populace of Athens subserves the general concerns of Field that are oriented towards the historical concerns of the account– to show the powerlessness that humans have in the face of unplanned, random and impersonal events. This means that the basic contrast in experiential meaning between humans and the plague– in terms of process types, ergativity, and participant roles– is oriented to these larger concerns to provide a historical account.

### 13.1.1 Effective processes and the plague

One of the dominant experiential patterns in the account is that of the plague as a main participant, or implied main participant, in effective processes. Furthermore, this is in the role of Agent or implied Agent. Participants that fall into this category are the plague as a singular entity (Greek *loimos*, *nosos* and *nosêma* 'disease, plague'), synonyms of this singular entity (such as *kakon* 'evil', 'curse', 'affliction'), and symptoms and disease processes that are thought to be directly caused by the epidemic singular entity (such as *thermai* 'inflammation')<sup>369</sup>. Fifty-five clauses in the account contain these entities directly involved as a main participant in processes which is slightly less than half than the number of clauses that have humans as main participant (114). This difference in frequency is directly attributable to the ultimate

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<sup>369</sup> The term *phthoros* 'destruction' is also used in the account, and may be considered synonymous with the plague as a singular entity. However, it appears to be used to denote *both* the plague and its *effect* on people and the population as a whole, and therefore is excluded from this list.

purpose of the account– which is those aspects of Field that deal with the integration of the account into the overall historical narrative. The lexicogrammar of the account ensures that the 'experiential focus' of the account is on humans and what they do during the period of the plague in Athens.

However, if we examine more carefully the clauses in which the plague is the main participant, then we find that there are substantial differences in the transitivity and ergativity type when compared to those with human main participants. Furthermore, this difference is further emphasised in clauses which have both humans and the plague as participants. This patterning is similar to the experiential patterns associated with the sun and bodies of water in Herodotus' account of the Nile, and may construct a similar causative role in this account between the plague and human behaviour.

### **13.1.2 The initially indeterminate agentive status of the plague**

In the clauses which have the plague as main participant, two patterns emerge. Firstly, the plague appears as (implied) Actor in middle ergative material processes, particularly those processes of spatial movement. This is reflected in the construed progress of the plague towards Athens from other parts of the world, and in the movement of the disease process from one part of the body to the other.

Thucydides 2.48

êrxato de to men prôton ex Aithiôpiās tês huper Aiguptou, || epeita de kai es Aigupton kai Libûên katebê kai es tēn basileôs gên tēn pollên.

It firstly started out from Ethiopia beyond Egypt, || and then came down to Egypt, Libya and a large part of the (Persian) kingdom.

êrxato	to men prôton	ex Aithiōpiās tês [huper Aiguptou],
<b>Process: material: doing: dispositive + middle</b>	<b>Circumstance: time: location</b>	<b>Circumstance: space: location</b>
katebê	es Aigupton kai Libûên	kai es tên basileôs gên tên pollên.
<b>Process: material: doing: dispositive + middle</b>	<b>Circumstance: space: location</b>	<b>Circumstance: space: location</b>

Thucydides 2.49

kai en ou pollôi khronôi katebainen es ta stêthê ho ponos meta bêkhos iskhurou;

...and in not much time (the disease) descended to the chest with forceful coughing;

katebainen	en ou pollôi khronôi	es ta stêthê	ho ponos	meta bêkhos iskhurou
<b>Process: material: doing: dispositive + middle</b>	<b>Circumstance: temporal: location</b>	<b>Circumstance: spatial: location</b>	<b>Actor / Agent</b>	<b>Circumstance: accompaniment</b>

The common experiential pattern between the geographic spread and the pathogenesis of the disease in the individual is significant, and will be commented upon later in terms of its role in constructing causation. However, it is important to note that as these clauses stand, outside of their co-text, it is not possible to determine the ergative role of the implied main participant (the plague / disease). There is a certain ambiguity between whether it is in the role of Agent (that is, the model 'entity x moves itself') or Medium ('entity x moves because of a causative entity y'). This is

especially as the Actor of the verb *katabainō* 'go down' can be either a conscious human entity capable of intention, or (less frequently) a non-volitional object<sup>370</sup>. This indeterminacy of the ergative role is in part due to the 'ellipsis' of the main participant in some of these clauses. However, the overall effect of this is to not overtly tie the author to a particular causative model or theory of the disease, either in terms of its origin or its pathogenesis of the disease. Thus, Thucydides covertly achieves in the lexicogrammar what he stated he would do earlier in the account– he says that he will not speculate on the causes of the disease.

### 13.1.3 A tendency to agency: the role of the surrounding lexicogrammatical choices

However, when these clauses are considered in their surrounding text, this picture becomes more complicated, and pushes the experiential status of the disease, though not completely, towards an agentive role. This is in part achieved through the construal of processes where the disease is the Actor and Agent in clauses of effective ergativity. The last clause cited above is followed by these two clauses:

Thucydides 2.49

kai hopote es tēn kardian stêrixēien, || anestrephe te autēn ||

... and when it settled around the upper stomach, || it churned it...||

stêrixēien	es tēn kardian
<b>Process: material: doing: dispositive + middle</b>	<b>Range</b>

<sup>370</sup> See Liddell, Scott et al. (1968) p.884. The verb can govern a nominal group in accusative case, but this appears to have the experiential role of Circumstance: spatial: extent or Circumstance: manner : means.

anestrephe	autên
<b>Process: material: doing: dispositive + effective</b>	<b>Goal / Medium</b>

The last of these clauses is clearly an effective process, with the disease the implied Actor and Agent, and *autên* (anaphorically referring to *kardian* 'upper stomach' in the previous clause) clearly Goal and perhaps Medium<sup>371</sup>. This forces a particular interpretation of the transitivity of the immediately preceding clause, where the disease is the implied main participant and Agent (and therefore the disease 'causes itself to be settled') rather than Medium, which would imply that some other process or entity caused it to be located in that region of the body. This is a particular example of how the experiential lexicogrammatical categories of the clauses are not completely determined within the single clause, but are in part determined by the lexicogrammatical choices made in surrounding clauses. In particular in this example, the transitivity and ergativity selections of one clause have a partial bearing on the ergative configuration of the preceding clause. This seems to support the notion that lexicogrammatical categories have a reciprocal relationship with particular semantic and discourse categories<sup>372</sup>.

### 13.1.4 Agency of the plague and humans as 'victims'

Furthermore, there appears a tendency in such material effective clauses for the disease or plague to be Actor and Agent, and a human, a human body, or some part of it to be Goal, sometimes conflated, as in the example above, with the ergative role of Medium. Thus it appears that a consistent experiential picture is being constructed. We have the disease and its associated processes being initially construed without any commitment to its role as an Agent or as a manifestation of an outside unexplained entity, but then tending to be interpreted as an agent from its role in transitive processes. In particular, there is a tendency in these effective clauses for the disease

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<sup>371</sup> *autên* can be interpreted as Medium along the lines of 'cause x to be churned'.

<sup>372</sup> For this, see Hopper and Thompson (1984).

to be an agent that affects humans or some part of their body. Thus, although there is initially a degree of non-committal to the ergative and transitive status of the plague, there is, in the context of the transitivity patterns of surrounding clauses, a tendency to view the disease as an agent with effects on humans. However, this interpretation of the lexicogrammar is not complete without considering what other kinds of processes, transitivity and ergativity human participants are involved in.

### **13.1.5 Powerless people: middle processes, 'reflexive' effective processes, and people**

The construal of human participants is quite different to that of the plague. The general experiential pattern is that of human agents not having any direct effect on the plague or its sequelae. In fact, there are only very few clauses in which both the plague / disease and a human agent participate; in these clauses, the human agent is often the Goal of effective material processes, or the disease is the Matter about which humans engage in verbal activity. In other clauses, humans are the Agent in middle material processes without any specific Goal, or they are involved in 'reflexive' effective processes where the Goal is either themselves or part of themselves. In other words, the overall pattern is that humans are relatively powerless in the face of the plague, and are limited to only reacting to it in some way— either by thinking about it or by talking about it. If they do engage in some kind of material action, it is limited to behaving in a certain way, or performing actions that affect themselves only. If we combine these findings with those associated with the construal of the disease, we have an overall picture of a plague that affects everything, and people who do not have any power to change or stop its course.

The people who are thought most likely to have some kind of answer to the plague are the doctors. However, even their intervention is ineffectual, as revealed in the lexicogrammar of the following clauses.

Thucydides 2.47

oute gar iatroi êrkoun || to prôton therapeüontes agnoîai, || all' autoi malista ethnêiskon  
[[hosôî kai malista proêisan]]

For not even the doctors were enough, || at first tending to the sick in their ignorance, || but they  
themselves especially died, especially from [[those whom they came into contact with]] ||...

êrkoun	iatroi		
<b>Process: relational:</b> <b>intensive + ascriptive +</b> <b>middle</b>	<b>Carrier / Medium</b>		
therapeüontes	to prôton	agnoîai,	
<b>Process: material:</b> <b>happening: behavioural +</b> <b>non-ranged + middle</b>	<b>Circumstance:</b> <b>time: location</b>	<b>Circumstance:</b> <b>manner: means</b>	
ethnêiskon	autoi	malista	[[hosôî kai malista proêisan]],
<b>Process: material:</b> <b>happening: behavioural +</b> <b>non-ranged + middle</b>	<b>Actor / Medium</b>	<b>Circumstance:</b> <b>manner:</b> <b>comparison</b>	<b>Circumstance:</b> <b>cause</b>

Two features are evident from the analysis of these clauses. Firstly, the human agents are involved in middle ergative processes, in which they take the ergative role of Medium. In the second clause, where the doctors are the implied main participant, they take the role of Actor and Agent, but without any Goal. Secondly, the plague as an entity does not feature as a participant in any of these clauses, even though we know that this is the focus of the doctors' work. Thus, there are two sets of lexicogrammatical features that construe the ineffectiveness of the doctors— the lack



of a Goal in the clauses, and the exclusion of the plague as a participant in these clauses.

This exclusion of human agents from any effect on the plague is to such an extent that at times it appears almost as if the human activity being construed has nothing to do with the plague itself. Out of a total of 239 clauses in the account, only 14 of these (clauses 16, 51, 60, 62, 63, 78, 84, 94, 98, 109, 111, 146, 148, 163) have both the specific disease and the members of the Athenian population as direct participants in the clause process. Of these clauses, many of these are to do with the physical manifestation of disease (that is, observed abnormal alteration of bodily function) upon the body (in the clause number range 51-109) and not the disease itself as a singular entity. Thus the actual number of clauses that involve both the disease as a singular entity and individual human agents– the transitivity pattern most likely to reveal what effect humans had on the extent, spread and mortality of the plague– is quite small as a proportion of the total number of clauses in the account. This patterning seems to suggest a 'quasi-independence' of human activity and the progress of the plague, in turn suggesting the ineffectiveness of the former in countering the latter. In addition, the transitivity pattern in all 14 clauses has a common configuration, which further supports this ineffectiveness of human action. This will now be discussed.

### **13.1.6 The plague does not cause death (directly)**

If we examine these clauses where both humans and the disease are involved in the same process, we find that one general pattern is that of the plague or disease, or its physical manifestation, as Actor in an effective material process, the Goal of which is a human or collection of people, or some part of a human body.

Thucydides 2.49

hôte ê diephtheironto hoi pleistoi enataïoi kai hebdomaïoi hupo tou entos kaumatōs

...with the result that most people were killed on the seventh or eighth day by the internal fever...

diephtheironto	hoi pleistoi enataïoi kai hebdomaïoi	hupo tou entos kaumatatos
<b>Process: material: doing: dispositive + effective</b>	<b>Goal / Medium</b>	<b>Actor / Agent</b>

In this example, we have a physical manifestation of the disease as Actor and Agent in an effective material process, whose Goal and Medium are humans. Even in such examples as this, there is some 'experiential distance' between plague and human; it is not the disease that is directly involved, it is the nominalised pathogenic process that occurs in the affected person. It is quite possible for an audience to *infer* from this that the plague killed people; however, Thucydides does not choose to represent it as such, instead choosing to appear to 'equivocate' on the causal link between plague and death. Here as it stands, fever– not the plague– causes death. Another way that Thucydides creates such distance is to construe one of them as a direct, and the other as an indirect, participant in the one clause. For instance, in clauses 62 and 63, humans are construed as Beneficiary with a middle ergative material process, of which a physical effect of the disease (*lunx* 'retching') is the implied Actor and Medium.

This distance and equivocation appears to be an important aspect of the construal of complex phenomena in consciously reflective discourse. Thucydides does not say that the plague directly causes death; instead, he represents events in such a way that he invites the audience to construct for themselves the necessary causal link. This is in part the function of the kind of participants selected in the clause. However, it is also because the above clause 'leaves matters unexplained'; it is not clear, either from the clause in isolation or from the preceding text, how fever causes death in affected people. The nominalisation, as happens in scientific discourse in English, involves

some 'loss of information' and abstraction<sup>373</sup>. Therefore, it is left up to the audience to further investigate the nature of the causal link between the nominalised entity and the killing of people, either by recourse to other texts in scientific genres and registers or to engage in new semiosis in those genres. More will be said about the role of nominalisation in this account later.

Thus the overall construed relationship between the plague and people is that of the plague causing particular physical states in the body, which in turn are responsible for morbidity and mortality in sufferers. These sufferers, and their carers, have minimal, if any, impact on the course of the disease. These relationships are constructed in the lexicogrammar of the account which construes a separation between the direct effects of the plague, and the actions of people. Instead of saying, 'the plague caused people's death', Thucydides instead proposes two *potential* sets of causative links, from the plague as a single entity afflicting a city, to the physical effects of the disease on individual bodies, and then to the observed behaviour of people who suffer from the disease. They are only potential causative links, because they are not explicitly formulated in the lexicogrammar through the ergative system in single clauses. However, Thucydides' construction of events is such that it makes it likely that the audience will construct these causative links for themselves between plague and sufferers' illness. He is not acting as a bystander, 'letting the facts speak for themselves'. Instead, he represents events in such a way as to increase the likelihood that they will be interpreted within a causative framework. However, it is not only the lexicogrammar of single clauses that is responsible for this; the particular patterns of clause complexing may also contribute, and these will now be discussed.

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<sup>373</sup> See Halliday and Matthiessen (1999) p.230-231.

## **13.2 The covert construction of causation**

### **13.2.1 Overt construal of causation and the explanation of human behaviour**

In describing the physical course of the disease in the individual, there is relatively little use of enhancing clause complexing of causation. In this section consisting of 29 clause complexes and 108 clauses (comprising the generic stages of *Precis*, *Natural History* and *Motivation*), there are only 8 instances of logico-semantic relations of cause, reason and result (the immediate clause complexing relations of clause numbers 9, 16, 22, 36, 38, 40, 68, 78). This contrasts with the subsequent stages of *Differentiation*, the two *Reaction* stages, *Specific Consequence*, *General Consequence* and *Summary*, which in total contain 35 clause complexes and 132 clauses. In this section there are 16 instances of logico-semantic relations of cause, reason and result (the immediate clause complexing relations of clause numbers 129, 131, 134, 135, 138, 145, 146, 155, 159, 163, 181, 183, 187, 190, 195, 206).

If we examine the environment in which the eight logico-semantic relations occur in the description of the physical course of the disease, we find that it is employed when describing the behaviour of people—their reasons and motivation for talking about the plague, their mental and behavioural response to physical events occurring external to them or to the effects of the disease upon them. At no point is this kind of clause complexing used to construe a causative link between discrete processes associated with the disease alone. Furthermore, the eight clauses in question do not construe interclausal relations of 'cause' in its strict sense; instead, they construe the category of 'reason', which is more oriented to the activity of explaining people's behaviour rather than positing causal links between two observed events. Indeed, this is a pattern that is replicated in the account as a whole—most of the instances of this variety of logico-semantic relation occur when explaining the behaviour of people in response to the plague.

Thus this kind of clause complexing is restricted to explaining the behaviour of individuals and the Athenian population, and therefore is deployed as part of the realisation of those aspects of Field that subserve the linkage of the events of the plague to a historical narrative and explanatory text, rather than explaining the plague on its own terms.

### **13.2.2 The interpretation of enhancing clause complexes in the description of the disease**

However, there are certain kinds of clause complexing relations in the *Precis* and *Natural History* stages that do suggest causative links between discrete processes associated with the disease. This causation is construed through temporal coordination and correlation, including the use of conditional clause complexing. As in Herodotus, this kind of complexing gives the overt impression of a narrative-like, temporally organised series of events; however, given the semantic environment of the generic stages, which frame this narrative in an argumentative framework, these temporally organised construals can also be interpreted in terms of a causative chain. Again, this is made possible by the tendency in Greek to construe both temporal and causal sequences through the same lexicogrammatical resources, particularly with hypotactic constructions.

This is well illustrated by the description of the progress of the disease down to the stomach, where clause complexing which is lexicogrammatically non-causal is used to construct covertly causative combinations of events.

Thucydides 2.49

kai hopote es tên kardīan stêrixeīen || anestrephe te autên || kai apokatharseis kholês pasai ||[hosai hupo iatrôn ônomasmenai eisin]|| epêisan

and when it settled in the upper stomach, || it churned it || and all kinds of vomiting of bile ||[as have been given a name by doctors]|| supervened

<b>x<math>\beta</math></b>	<b>enhancing: temporal: prior: point</b>	kai hopote es tēn kardian stērixēien
<b><math>\alpha + 1</math></b>		anestrephe te autēn
<b><math>\alpha + 2</math> 1</b>	<b>extending: additive: positive</b>	kai apokatharseis kholēs pasai [[hosai hupo iatrōn ōnomasmenai eisin]] epēisan

The clause complexing bears a complex relationship to the kind of sequencing of figures at the level of semantics. The first clause is traditionally described as an 'indefinite temporal clause', because of the form of the temporal conjunction *hopote* 'whenever' and the optative mood of the verbal form. The clear implication of this is that this effect of the disease was not present in all cases, and so at the level of semantics this may be a realisation of a conditional sequence of figures. The third clause is related to the second lexicogrammatically in terms of extension. However, because the second and third clauses construe phenomena at different orders of experience (inferred 'invisible' pathogenic processes and observed symptoms) one may be inclined to think that this is a metaphorical realisation of a temporally organised sequence of figures, where one is temporally prior to and concurrent with the other.

However, both complexing relations tend to be interpreted as also being in a causative sequence. There are two reasons why this is so. The first of these relates to the overall argumentative functions of the generic stages in the account. As discussed before in the examination of Homer's conscious reflection and Herodotus' theory, causation becomes relevant in an argumentative framework because it is oriented to getting an audience to engage with and react to the event sequence being constructed. Because temporal and causal sequences have the potential to be realised in the same lexicogrammatical resources, there is always the potential for temporal clause

complexes to be interpreted as construing causal sequences given the appropriate rhetorical and / or generic environment.

### 13.2.3 Causation and lexicogrammatical 'disjunction'

The second reason why there is a tendency to interpreting the events as being causal is the degree of 'lexicogrammatical disjunction' between the clauses. In other words, there is some degree of a lack of cohesion between the clauses, in terms of both grammar and lexis. If we firstly consider the grammar, there is a contrast between the effective material process of one clause and the middle material processes of the other two clauses. Secondly, if we consider the nature of the cohesive ties between the lexical items of the middle material process clauses, there is no easy semantic relation between the participants *kardia* 'upper stomach' (as an region of the body rather than part of an internal organ), *apokatharsis* 'vomiting', and *kholê* 'bile' that exists independently of the lexicogrammatical complexing in this instance. The semantic relationship that probably best describes this is that of temporal and spatial contiguity; however, it is difficult to determine whether or not this is a function of the current clause complex. Certainly, it does not fall into the semantic relations that are usually said to be involved in lexical cohesion, such as part-whole relations, taxonomy, or synonymy. Thus, lexically and grammatically, there is a certain amount of 'experiential dissociation' between the clauses. For this reason, it becomes less easy to see the events being construed by the clauses as being simply temporally related to each other; the notion of cause is invoked to bind these events to each other.

Therefore, in the *Precis* and *Natural History* stages of the account, causation is constructed through clause complexing relations, but without explicitly invoking causal logico-semantic relations. Instead, temporal clause complexing, in conjunction with the described 'experiential dissociation', is used to covertly construe these causal links within the discourse semantic environment. The overall effect of this is to present a covert theory of the disease, while overtly maintaining the 'anti-theoretical' position that Thucydides explicitly adopts in the *Motivation* stage.

### 13.2.4 The construction of cause through functional relationships between clausal elements

It is quite possible to see the covert construction of causation in individual clauses, and that this is quite possibly a metaphorical realisation of the logico-semantic relation of cause. One of these realisations is, not surprisingly, the logical relationship of the Process to Circumstance: cause within a single clause, as the following example shows.

Thucydides 2.49

hoi polloi | husteron | [di' autên] astheneĩai | diēphtheironto

...many people | died | later | because of the weakness [through this (*the diarrhoea*)] |

diēphtheironto	hoi polloi	husteron	[di' autên] astheneĩai
<b>Process: material: doing: dispositive + effective</b>	<b>Goal/Medium</b>	<b>Circumstance: temporal: location</b>	<b>Circumstance: cause</b>

Causation is conveyed through a nominal group whose dative case is the structural morphemic element on which a Circumstance of cause is mapped<sup>374</sup>, and the relationship of this Circumstance to the Process of the clause. This Circumstance, in addition has its own internal structure which reveals another potential metaphorical realisation of cause:

di' autên astheneĩai

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<sup>374</sup> For the description of the 'dative of cause' see Smyth and Messing (1974), p.348-349. This is closely allied to the 'instrumental dative' which realises roles such as Circumstance: manner or Circumstance: means; for this, see more generally *ibid.*, p.346-350.



'because of the weakness [through this]'

[di' autên]	astheneĩai
Preposition ^ Noun	
Prepositional Group	Noun
<b>Qualifier</b>	Thing
<b>Nominal Group</b>	
<b>Circumstance: cause</b>	

The nominal group contains a prepositional group that acts as Qualifier for the Thing. This prepositional group contains the preposition *dia* 'through', 'on account of'. This kind of preposition has a well recognised use of construing causation as a Circumstance in a single clause (the use of *dia* with an accusative cause morpheme noun)<sup>375</sup>. Thus this relationship between Qualifier and Thing also functions to construe causation between weakness and diarrhoea. The resources of nominalisation and anaphoric reference between nominal groups is essential to this metaphorical realisation of causation, and this role will be considered more generally in the later discussion of nominalisation in this account.

It will be recognised from the above example that not all Qualifiers in nominal groups will be mapped onto prepositional groups which in other constructions will function as Circumstance: cause. As in English, there are many other types of prepositional groups embedded as Qualifier in nominal groups that do not have this function.

Thucydides 2.48

[tosautês metabolês] hikanas einai || dunamin [es [to [[metastêsai]] ] ] skhein; ||

... (the causes) to be sufficient [for such a great change] || to have the power [for [[causing change]]];

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<sup>375</sup> See Smyth and Messing (1974), p.371, 375.

einai	[tosautês metabolês] hikanas
<b>Process: relational: intensive + ascriptive + middle</b>	<b>Attribute</b>
skhein;	dunamin [es to [[metastêsai]] ]
<b>Process: relational: possessive + ascriptive + effective</b>	<b>Attribute</b>

The Attributes in both clauses have embedded groups (one of which contains an embedded clause) which act as Qualifiers for the relevant adjective or noun that is at the Head position. The first of these is a nominal group with genitive case morphology. Such genitives qualifying adjectives that denote a capability can be described as a 'genitive of capacity and fitness', which can be seen as a function within the nominal groups of the general tendency of genitives to have a 'limitative' force<sup>376</sup>. The second is a prepositional group with the preposition *es* 'into'. Such prepositional groups can have functions in clauses to denote purpose<sup>377</sup>. Although these embedded groups do not strictly have the function of denoting causation within their groups, they do covertly construct causation through these functions of construing capacity (having the quality x with the potential of causing event y) and purpose (being or doing x with the possibility that event y might occur as a result).

Genitives embedded within nominal groups that have a 'limitative' force are found elsewhere in the account and also construct causation, such as in the following example:

Thucydides 2.49

[hê aporiā [tou [[mê hêsukhasdein]] ] kai hê agrupnīa

'the helplessness [arising from [[not lying still]] ] and the insomnia'

<sup>376</sup> See Smyth and Messing (1974), p.313-314, 332.

<sup>377</sup> See Smyth and Messing (1974), p.376.

hê	aporîa	[tou   [mê hêsukhasdein]]	kai	hê	agrupnîa
Definite Article	Noun	Nominal Group		Definite Article	Noun
Deictic ^ Thing ^ Qualifier				Deictic ^ Thing	
Nominal Group			Conj	Nominal Group	
Nominal Group Complex					
Attribute					

Again, the prepositional group has genitive case morphology, which has the force of 'limiting' the sense of the noun *aporîa* 'helplessness'. Literally this would mean 'the helplessness of not lying still'. But it has the function of covertly constructing a causative link between a sufferer's mental distress and their physical discomfort, by construing one as being a 'pseudo-meronym' of the other.

Another effect achieved in this nominal group— and indeed in any of these complex nominal groups which are 'modified' with other nominal groups functions— is that the particular entity has the potential to be classified taxonomically according to the causative element. In this case, it is symptomatology classified according to a covert theory of causation. As such, it is another instance where what is observable is construed with respect to an underlying theory of disease causation.

With respect to construing causation in the physical progress of the disease, there appears to be an avoidance of using the 'overt' resources in the clause complexing to do so. Instead, these clause complexing resources that directly construe causation are used to explain people's behaviour in response to the physical and psychological conditions that surround them. However, there is a covert construal of causation within the nominal groups that represent disease processes, and in the kinds of circumstances that stand in relation to the processes in individual clauses.

### 13.3 The body and the outside world: the equivalence of plague and disease

As a working hypothesis, it might be possible to define the plague (Greek *loimos*) and the disease (Greek *nosos* and *nosêma*) as two different perspectives on the same phenomenon. 'Plague' refers to what happens to the affected community as a whole—how many people are affected by the same phenomenon, and the manner it takes hold of the population. 'Disease' is what happens to the individual— an individual's symptoms and signs of the illness, and the progression and course of that illness in the individual. Such a distinction can be supported in Greek literature. For instance, the possibly first account of a 'plague' in Greek literature— that visited upon the Greek army by Apollo in the first book of the *Iliad*— construes the phenomenon as 'plague' rather than 'disease'.

Homer *Iliad* 1.9-10

ho gar basilêi kholôtheis || nouson ana straton ôrse kakên, || olekonto de lâoi...

He (Apollo) grew angry with the king || and rose up an evil plague upon the army, || and the people were dying...

Homer *Iliad* 1.48-54

hesdet' epeit' apaneuthe nêôn, || meta d' ïon hêêke; ||| deinê de klanggê genet' argurêoio bïoio. ||| ourêas men prôton epôikheto kai kunas argous, || autar epeit' autoisi belos ekhepeukes ephîeis ball'; ||| aiei de purai nekûôn kaïonto thameïai. ||| ennêmar men ana straton ôikheto kêla thêoio, || têi dekatêi d' agorênde kalessato lâon Akhilleus; ||

### Chapter 13: The lexicogrammar of the account of the plague of Athens

He (Apollo) sat opposite the ships || and sent forth an arrow; ||| terrible was the sound that came from his silver bow. ||| He first let fly at the mules and the swift dogs, || but then he sent arrows thick and fast upon the people; ||| fires continually burned, full of the dead. ||| The god's arrows fell upon the army for nine days, || but on the tenth, Achilles summoned the people to a meeting;... ||

The emphasis in these passages is not on individual suffering and how it is caused. Instead, the plague (here in these lines construed as *nousos*, the Ionic dialectal equivalent of Attic / Athenian dialect *nosos*) is described in terms of how many people it affects, and the resulting destruction of people. The closest that Homer comes to construing causation is through the modelling of the disease as arrows flying from the god. However, this model appears to be motivated by the need to describe how the plague affects and kills lots of people suddenly; in other words, it is motivated by the emphasis on the 'epidemiological' aspect of the disease, rather than on describing pathological processes in individual people. However, most importantly for this discussion, it shows that 'plague' is described separately from 'disease' in Homer, and we may be able to assume that this distinction can be made in subsequent literature.

In contrast, Thucydides not only construes both plague and disease in his account, but sees them as inextricably linked. He does this by construing a clear, temporal, spatial and causal linkage between the geographic spread of the plague from one community to another, and the progress and course of disease in the individual. This linkage is achieved through consistent selections in transitivity, by the consistent use of processes of spatial movement of both plague and disease.

Thucydides 2.47

kai proteron pollakhose engkataskêpsai kai peri Lêmnon kai en allois khôrïois

...(the plague being said) to have firstly fallen upon many locations around Lemnos and other places...

engkataskêpsai	proteron	pollakhose	kai peri Lêmnon kai en allois khôrïois,
<b>Process: material: doing: dispositive + middle</b>	<b>Circumstance: time: location</b>	<b>Circumstance: space: location</b>	<b>Circumstance: space: location</b>

Thucydides 2.49

kai hopote es tên kardīan stêrixēien

... and when it (the disease) settled on the upper stomach

stêrixēien	es tên kardīan
<b>Process: material: doing: dispositive + middle</b>	<b>Circumstance: location: space</b>

The lexicogrammatical selections of process type, ergativity, implied agency (in both cases, the disease or plague is implied Agent) and Circumstances of spatial location are common to both clauses, and construe the movement of the entity to certain points in a spatial domain, whether this be cities in a geographic region or internal organs within a person's body. This shared lexicogrammatical model makes it more likely that both 'plague' and 'disease' are tightly linked to each other to the point where they are seen as 'equivalent'.

However, this on its own is insufficient to establish the identity of plague and disease with each other. The concurrent deployment of both lexical cohesion and anaphora serves to link both to each other. The plague is referred to as *nosos* initially in the account (clause 2) and is implied as a participant in subsequent clauses of the *Precis*,

Motivation and Natural History. The word is then repeated in the initial clause of the Differentiation (clause 97) within a nominal group (*to eidos tês nosou* 'the picture of the disease')– the stage that links the description of the disease back out to a comparison with other similar phenomena, and then to its significance for Athens. This in turn coheres with its near synonym (and morphological relative) *nosêma* (clause 109, 152, 177) and with other lexical items in the account that construe both the disease and the physical and other end states that result from the disease. This includes terms such as *kakon* 'evil, curse' (clause 146, 163, 208) *ponos* 'burden'<sup>378</sup> (clause 153) *pathos* 'suffering' (clause 204), *loimos* 'plague' (clause 213, 215, 217) and *phthoros* 'destruction' (clause 133, 157). These are the implied participants in the clauses that described the physical course of the disease in the individual.

As well as cohering with each other in terms of semantic relations of repetition, derivational relation and near synonymy, all of these terms refer anaphorically to the events that have been construed in the previous generic stage or stages. The function of these terms as nominalisations will be discussed later. For the present argument, however, it will suffice to say that the combined effect of both the lexical cohesive relations and the anaphora is to link the events within one generic stage to each other, and to link generic stages to each other. In particular, it is through these resources that the plague as a epidemiological and social phenomenon is aligned and at least partially identified with the disease and illness that afflicts the individual.

### 13.4 Agency and the construction of pathos

We have already noted how the plague is construed as an agent, and the people of Athens as its victims, and that this is constructed through the lexicogrammar of the account. This particular construction does not have direct relevance for the any covert or overt theory of the disease on its own terms. Instead, this construal is more

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<sup>378</sup> This also coheres with the morphologically related verb *ponēomai* 'be in difficulty, suffer' embedded as a participant ( *[[ton ponoumenon]* 'the sufferer') in clause 147.

directly oriented to the historiographical and literary aspects of Field, which are ultimately to what Thucydides addresses his account.

The essential element that is constructed with respect to these aspects of Field is that of pathos— the element in the account most widely appreciated, evident in Seneca's 'borrowing'. The powerlessness of the Athenians in the face of the plague is an important element of this. The lexicogrammar construes them as affected participants, and particularly by the events directly to do with the plague. Their own actions— the ones in which they are a main participant— are 'limited' to talking about, perceiving, or responding to the plague, or alternatively these actions simply affect themselves. Covertly— and overtly— human action is constructed to have no effect on the plague, despite their best efforts.

This positioning of humans in the account is accentuated further by the constructed 'impersonality' of the plague itself. In the processes in which the plague or disease features, it simply moves from place to place, in spite of the massive effects it has on people. At no point is it construed to interact with whole people— just with locations, or parts of bodies— and so is not positioned by the account to respond to what people do. In an important sense, the plague 'refuses' to deal with people. Constructed this way, humans are not in a position to prevent or ameliorate the onset and progress of the disease in the individual, or the plague in society.

Thus, the account constructs Athenians as being immersed in a situation of which they have no control. We may conclude that their construction as such is oriented to those aspects of Field that concern the development of historical themes. In particular, it addresses the issue of what people can and cannot do to shape their own destiny as individuals, or as a community in relation to their geopolitical environment. The account of the plague is a microcosm of this theme, as well as being construed to be a major historical event in its own right that has a bearing on subsequent events in the war with Sparta. Thus the construal of events in the lexicogrammatical patterns of the account has a role in constructing 'background themes' in the History as a whole,



themes that are likely to be present in the construal of other events of the war by Thucydides.

### 13.4.1 Orientation of agency with respect to 'literary' aspects of Field

It can also be said, however, that the lexicogrammatical construals also are oriented to the literary concerns of the account, and do so by constructing pathos. The way by which this is constructed is portraying events in such a way that also construe a certain degree of intertextuality with other genres that have the construction of pathos as their central concern, in particular tragedy. It would take a systematic linguistic analysis of tragedy to determine more precisely what linguistic features construe such pathos; such an analysis is beyond the scope of this thesis. However, there is little doubt that, whatever the linguistic resources deployed, such pathos is created by tragic texts, and that this is an essential aspect of the Field of each tragedy, and may be reflected in the generic structure.

If we take the example of Sophocles' *Oedipus Rex*, the central character Oedipus is represented as being ignorant or unmindful of the situation that he has created for himself– the murder of his father and his marriage to his mother. However, at the same time, he has only created such a situation because of the fate that had been preordained for him, which he cannot escape, and over which he ultimately had no control. Furthermore, this theme also reinforces a larger theme in tragedy where humans are thought to be unable to avoid hardship and disaster in their lives– in fact, this is explicitly stated in a 'rhetorical question' in the play:

Sophocles *Oedipus Rex* 1496

ti gar kakôn apesti?

For who is apart from evils?

The genre of tragedy has this theme as one of its core elements, and is a major foundation on which pathos is constructed. The pathos is created by human characters struggling against these 'larger forces', and ultimately, inevitably, failing; it is created by the tension between what humans can and cannot do, and what they try to do.

Thucydides, unlike the tragedians, does not invoke concepts of preordained fate in his account of the plague. He even implicitly holds out hope that in the future that someone will be able to intervene productively if the plague were to occur again<sup>379</sup>. However, in important respects, the situation presented in the account, covertly constructed in the lexicogrammar, presents the plague as an event that humans cannot control. Humans do act, but they do not have an effect on the plague that surrounds them. Again, as in tragedy, there is a tension created between what humans do, what they try to do and what they cannot do— the last of which has the most bearing on their existence and way of life. As a result, pathos is constructed in the account through the lexicogrammar, and the intertextuality of these patterns with that of other genres that have pathos as their central concern.

### **13.5 Theorised disease: the plague as an object in space**

When considering the lexicogrammatical construal of the plague on its own terms, the common experiential framework used is that of an object moving within space. This not only includes external space between people and locations, but also internal space between different parts of the body; as noted before, there is a common transitivity pattern for both. The systematic experiential contrast between the plague and humans in terms of their grammatical participation in clauses is oriented to the historical and

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<sup>379</sup> See Thucydides 2.48.

literary functions of the account. However, it can also be said that the resulting 'impersonal' nature of the plague that is construed 'sets up' the account for its 'scientific function'— that is, its role in covertly 'explaining' the phenomenon of the plague.

Through the lexicogrammatical phenomena of clause complexing and nominalisation, the disease entity comes to be associated spatially, temporally and causally with the observed symptoms. The overall semantic environment of the text— particularly its generic structure— tends to guide the audience to interpret these linkages as causal. However, there is significant ambiguity in these linkages between the three logico-semantic types, because the generic structure also provides a 'narrative' semantic environment, and because, as has been noted in the discussion of Herodotus, these three types are mapped onto the same structural forms in the verbal morphology. This ambiguity is an essential part of such accounts which attempt a scientific explanation and description of phenomena.

### **13.5.1 Ergativity and its relationship to 'scientific' aspects of Field**

As discussed before, the plague is construed to be 'impersonal'. With respect to the construction of pathos, this can be interpreted as the events of the plague failing to be affected by human intervention of any kind. However, there are also two other aspects to this impersonality. The first of these is reasonably obvious— that is, the plague is a non-human entity— but has significant consequences. In the account, the plague is never the Sayer in verbal processes or the Senser in mental processes. When it is involved in such processes, it is inevitably as Matter / Verbiage or Phenomenon respectively. These are the main lexicogrammatical means by which the plague is construed to be non-human by Thucydides and his audience.

The modern scientific tradition leads the modern reader to believe the above observation to be blatantly obvious— infectious diseases, in the modern understanding, are assumed to be external agents of illness whose origin lies outside of the human body. However, it is important to note that this understanding in this account is constructed by the lexicogrammar of the text. Furthermore, in terms of ancient Greek literature, this is a significant step away from the social and psychological model of causation— that is, as in Homer and Hesiod, gods are motivated to cause humans to be a certain way. In the above example from the first book of the *Iliad*, disease is caused by Apollo shooting arrows at the Greek army.

Homer *Iliad* 1.9-10

ho gar basilêi kholôtheis || nouson ana straton ôrse kakên, || olekonto de lâoi ||

xß	ho	basilêi	kholôtheis
<b>enhancing: causal-conditional:</b> <b>causal: reason</b>	<b>Senser / Medium</b>	<b>Phenomenon / Agent</b>	<b>Process: mental:</b> <b>affective + middle</b>
α 1	nouson kakên	ana straton	ôrse
	<b>Goal</b>	<b>Circumstance:</b> <b>extent: space</b>	<b>Process: material:</b> <b>dispositive + effective</b>
α x2	olekonto	lâoi	
<b>enhancing:</b> <b>temporal:</b> <b>successive: later</b>	<b>Process:</b> <b>material:</b> <b>creative + middle</b>	<b>Actor / Medium</b>	

In the second of these clauses, Apollo is the implied Actor and Agent of a material process to which the destruction of the army is temporally successive. This is

complexed with a mental process of which the god is the Senser. In this way, the social and psychological model of causation is invoked, through the anthropomorphism of the god— mental processes lead to the effective process of a divine agent, and then to the middle process that concerns humans. This model construed through the lexicogrammar is conspicuously absent from Thucydides' account of the plague, as shown in the initial clauses of the *Precis* stage:

Thucydides 2.47

ou pollas pô hêmeras en têi Attikêi hê nosos prôton êrxato || genesthai tois Athênaiôis,

...not many days afterwards the plague first began in Attica || to occur among the Athenians...

êrxato	ou pollas pô hêmeras	en têi Attikêi	hê nosos	prôton
<b>Process: material: happening: behavioural+non- ranged + middle</b>	<b>Circumstance: time: extent</b>	<b>Circumstance: space: location</b>	<b>Actor / Agent</b>	<b>Circumstance: time: location</b>
genesthai	tois Athênaiôis,			
<b>Process: relational: circumstantial + ascriptive + middle</b>	<b>Carrier</b>			

In this introduction of the plague, there are no mental processes, nor human entities that act as direct participants in the material processes in the clauses. The plague is implied Actor or implied Attribute, and (implied) Medium of the clauses; but there is no specific explicit or implied Agent involved with these processes. Therefore, there

is not only no social and psychological model of causation involved here, but no explicit model of causation at all, despite there being significant resources in Greek to construe causation through the system of ergativity or through transitivity roles.

However, although there is no identifiable Agent, there is some covert modelling of the phenomenon of the plague. The most important aspect of this is that the plague and humans are construed to be separate entities. This is particularly construed through the circumstantial relational process of the second clause, where plague and population are separate entities in spatial relationship with each other. The second important aspect is that the material process clause opens up the potential for the plague to be construed as Agent in subsequent clauses. Here, it is involved in a behavioural-type process, which is the same type of process in which human entities can be main participants and take on the role of Agent.

In this way, the plague is construed in these first two clauses of the account to be a potential external cause of illness of humans which is not, in the first instance, modelled in social and psychological terms. In this model of disease, people do not simply become ill or sick of their own accord in a coincidental simultaneity— an outside agent causes illness in people. Furthermore, this external factor is not brought about by a volitional agent that is motivated in some way to bring about this factor—the gods do not cause this illness. However, there is the potential for the disease or plague to be construed as an Agent, and thus to stand in a causative relationship to physical illness. In short, the lexicogrammar of the account so far construes the plague as causing disease by itself, without this causation being motivated in any way. This has particular implications for the interpretation of the clause complexing relationships in which disease processes are construed.

### **13.5.2 Time becomes cause: ambiguity in clause complexing**

A recurrent feature of the description of the physical course of the disease is the complexing of pathogenic processes and clinical features of the disease. The way in which this complexing takes place is through the resources of enhancing clause

complexing and nominalisation that refer endophorically or exophorically. With regard to the clause complexing, there is a significant ambiguity between temporal and causal enhancement, with the result that a covert theory of the disease is presented, and in particular a theory about the relationship between the plague as a social and epidemiological phenomenon and the disease that occurs in individuals.

One particular pattern that occurs in the account is that of the construal of a disease process in one clause, complexed with the construal of symptoms and signs in the other.

Thucydides 2.49

... ê ei diaphugoïen, || epikatīontos tou nosêmatos es tēn koilīan || kai helkôseôs te autêi iskhuras engignomenês || kai diarrhoïas hama akratou empiptousês || hoi polloi husteron di' autên astheneïai diephtheironto.

... or if they survived, || the disease descended to the bowel, || and a heavy degree of ulceration occurred there || and uncontrollable diarrhoea ensued at the same time, || and many people died later because of the weakness produced by this.

<b>α xβ +2 xβ</b>	diaphugoïen			
<b>enhancing: causal-conditional: conditional: positive</b>	<b>Process: material: doing: dispositive + effective</b>			
<b>α xβ +2 α xβ 1</b>	epikatīontos	tou nosêmatos	es tēn koilīan	
<b>enhancing: temporal: successive: earlier</b>	<b>Process: material: doing: dispositive + effective</b>	<b>Actor/Agent</b>	<b>Circumstance: spatial: location</b>	

$\alpha \ x\beta +2 \ \alpha \ x\beta \ x2 \ 1$	engignomenês	helkôseôs... iskhuras	autêi	
<b>enhancing:</b> <b>temporal:</b> <b>successive: later</b>	<b>Process: relational:</b> <b>existential: existence</b> <b>+ middle</b>	<b>Existent</b>	<b>Circumstance</b> <b>: spatial:</b> <b>location</b>	
$\alpha \ x\beta +2 \ \alpha \ x\beta \ x2 +2$	empiptousês	diarrhoïas... akratou	hama	
<b>extending:</b> <b>additive: positive</b>	<b>Process: material:</b> <b>doing: dispositive +</b> <b>effective</b>	<b>Actor/Agent</b>	<b>Circumstance</b> <b>: temporal:</b> <b>location</b>	
$\alpha \ x\beta +2 \ \alpha \ \alpha$	diephtheironto	hoi polloi	husteron	[di' autên astheneîai]
<b>extending:</b> <b>alternative</b>	<b>Process: material:</b> <b>doing: dispositive +</b> <b>middle</b>	<b>Goal/Medium</b>	<b>Circumstance</b> <b>: temporal:</b> <b>location</b>	<b>Circumstance: cause</b>

This part of a clause complex (which is in paratactic alternative extension to the preceding part of the clause complex) has three clauses in the 'genitive absolute' construction (the second to fourth clauses inclusive in this above table) which have enhancing complexing relations among them. These three clauses as a 'subcomplex' are in an enhancing relationship to the clause which stands at the 'head' of this part of the clause complex. These enhancing relations are temporal in nature, because they do arrange each of the processes into a sequence organised with respect to time. This disease descends to the abdomen, *and then* ulceration ensues with diarrhoea, *and then* people die.

However, when situated in their lexicogrammatical and semantic environment, these enhancing linkages tend to construe causal linkages as well. Firstly, the second through to fifth clauses in the above example are effectively the 'apodosis' or 'main



clause' of a conditional clause complex, and thus the temporal enhancing relations are 'embedded', so to speak, within a conditional construction. Conditional enhancement construes the co-occurrence of two sets of potential or actual processes, and at least open up the potential for there to be a causal link between those two processes. Thus, the temporal complexing within this 'apodotic environment' can also be interpreted as causal complexing.

The more 'global' semantic environment of the generic staging also increases the potential for this interpretation of the clause complexing. So far, in the stages of *Precis*, *Motivation* and *Natural History*, there has been a concurrent orientation of the text to both narrative and argumentation. As in the discussion in Herodotus, causation is oriented to the act of the speaker pointing out to the audience those aspects of a complex phenomenon whose occurrence is essential for the occurrence of other aspects of the phenomenon. Therefore, intervention in any of these 'causative' aspects is construed to have effects on the nature and character of some aspect of the complex phenomenon as a whole. Therefore, if a significant part of the generic structure so far is oriented towards Thucydides engaged in making certain events 'salient' to his audience, and in constructing his particular position with respect to the phenomenon that he is describing (as he does in the *Motivation* stage), this makes it more likely that some events will be construed as causative of others. This may be a case of lexicogrammatical metaphor, where temporally enhancing clause complexing metaphorically realises a causal sequence that occurs within the environment of generic staging which is significantly oriented to Thucydides arguing for a particular approach to accounting for a complex phenomenon such as the plague, the understanding of which is not yet settled amongst his audience.

However, this does not fully explain the causative sequence that is being construed in this account. If we look at the participants involved in the clause complex above, we find that they have particular semantic relations to each other that span between theorised pathogenic processes associated with the disease through to observed symptoms and behaviour (including death) in the sufferers. We have the disease as an theorised object (*nosêma*) descending towards an internal body part not amenable to

direct observation (*koilia*), which coincides with the occurrence of disease processes which are also not available to direct observation (*helkôsis*) and then with the appearance of a directly observable sign (*diarrhoia*), and then to an overall state of the sufferer (*hoi diephtheironto*). Through this progression and semantic linkage, a causative sequence is made between the disease as a theorised entity and the observed clinical course of disease. This is achieved through a combination of lexical cohesion and exophoric and endophoric reference associated with nominalisation.

Nominalisation is an important linguistic phenomenon that is central to the covert construction of a theory of the disease, and opens up the potential for an explicit theoretical formulation of the disease in a subsequent text. This important linguistic resource will now be discussed.

### **13.5.3 Nominalisation: symptomatology as object**

Nominalisation in ancient Greek has been described and explained in the first part of this thesis (Chapter 6). In nominalisation, a nominal inflectional morpheme becomes associated with a word stem that had been *previously* associated with verbal inflectional morphemes. This definition necessarily refers to the state of a linguistic system prior in time to the occurrence of a given nominalisation, and so we can further refine this concept by invoking the complementary time axes—logogenetic time, ontogenetic time and phylogenetic time. We can therefore talk of nominalisation as emerging logogenetically, ontogenetically or phylogenetically.

This diachronic aspect of nominalisation has important consequences for determining what nominalisations refer to. Because logogenetic nominalisation develops out of the linguistic systems developed and deployed in a previous section of text, we would expect such nominalisations to (at least partially) refer endophorically in the first instance. In contrast, because a given person produces several discrete texts in their lifespan, and people within a speech community produce different texts from each other over the history of that community, we would expect ontogenetically and

phylogenetically developing nominalisations that occur in a given texts to refer exophorically and perhaps endophorically.

However, the picture presented so far is not as clearcut as this. For instance, we might find that a particular nominalisation in a text may both refer to some linguistic construal in a previous section of the text, but that this nominalisation is found in phylogenetically or ontogenetically prior discrete texts. In such cases, the nominalisation would still refer primarily endophorically, but at the same time exophorically to the same nominalisation in previous texts, and thence to the linguistic construals so nominalised. Thus, when encountering the nominalisations in Thucydides' account, we have to bear these possibilities in mind.

We also have to question whether the characterisation of nominalisation as 'turning a process into a thing' is adequate. There are certain nominalisations in Greek that are hard to characterise in such a way, such as the following term *adelphixia* (which may be glossed as 'affinity' or 'association') in the work *On Joints* in the Hippocratic corpus:

Hippocratic Corpus *On Joints* 56 Relative positions and movements at the hamstrings and groin

Prosunienai men ou kai tode khrê– eukhrêston gar kai pollou axion esti kai tous pleistous lêthei– hoti oud' [[hugiainontes]] dunantai kata tên ignuên ektanuein to arthron, ên mê sunektanusôsi kai to kata ton boubôna arthron, plên ên mê panu anô aeirôsi ton poda, houtô d' an dunainto. Ou toinun oude sungkamptein dunantai to kata tên ignuên arthron homoiôs, alla polu khalepôteron, ên mê sungkampôsôsi kai to kata ton boubôna arthron. polla de kai alla kata to sôma toiautas **adelphixias** ekhei, kai kata neurôn **suntasias** kai kata muôn **skhêmata**, kai pleista te kai [[pleistou axia ginôskesthai || ê hôs tis oietai]], kai kata tên tou enterou **phusin** kai tên tês sumpasês koiliês, kai kata tas tôn husterôn **planas** and **suntasias**; alla peri men toutôn heterôthi logos estai êdelphismenos [[toisi nun legomenoisi]].

It is necessary to understand the following– it is a useful and very noteworthy point, and most people do not pay attention to it– that not even those in health are able to extend the joint at the hamstrings, unless they also extend the joint at the groin, except if they lift their foot very high up– then they might be able to do it. In fact, they cannot even flex their joint at the hamstrings to the same degree, but do so with great difficulty, unless they also flex the joint at the groin. Many other parts throughout the body have such **associations**– in the **contraction** of the tendons and the **disposition** of the muscles– and these are very many of them, and ||[more worthy of being recognised || than one would think]– and in the **nature** of the intestine and the entire bowel, and in the **movements** and **contractions** of the uterus; but there will be discussion about these things in another place, associated with ||[what is being discussed now]].

The nominalisations and the translation equivalents are shown in bold. The term *adelphixia* is not a clear nominalisation of any one process in any one clause. Instead it seems to refer to the conditional clause complexing in the prior part of the text, where co-occurring phenomena to do with the leg joints are construed. At the same time, however, *adelphixia* does fit the criteria for nominalisation so far described. It clearly has the word stem found in the verb *adelphisdo* 'link together, associate' and *adelphisdomai* 'to be very like'<sup>380</sup>, and its morphological form is predictable from the combination of this stem with a nominalising morpheme<sup>381</sup>. Thus, in the light of this, it may be prudent to redefine the process of nominalisation somewhat. For the time being, we can characterise nominalisation as a morphologically nominal form whose stem is 'borrowed' from a previously established verbal form, but which refers to a lexicogramamtical construal that involves a configuration of processes and participants, which occurs in a prior section of the text and / or a prior whole text. As the following discussion will show, there is scope to further refine this definition.

The other interesting feature to note from the extract from the Hippocratic corpus is that once this particular nominalisation is made, it becomes associated with other nominalisations that refer, presumably exophorically, to other prior texts, and which are part of prepositional groups that construe Circumstance: location: space with a

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<sup>380</sup> See Liddell, Scott et al. (1968) p.20.

<sup>381</sup> See Smyth and Messing (1974) p.230, particularly the *-sia* morpheme used with stems containing a final zeta (*-sd*).

possessive relational process, of which *adelphixia* is the Attribute. This occurs in a part of the text which is attempting to explain a general principle of function throughout the body that holds between apparently disparate bodily organs and processes. Thus it appears that nominalisations are employed where an equivalence between different events and things is being sought, or that these events and entities are being brought into alignment with each other. This is of particular relevance in the account of the plague, where linkage between the disease and its clinical features is constructed as part of the covert theory of the disease.

In Thucydides' account, there are a number of nominalisations which denote clinically observable features of the disease. Some of these nominalisations do refer and reconstrue endophorically, as the following examples show:

Thucydides 2.49

ta de entos houtôs **ekäeto**

'...and the internal parts of the body **were** likewise **burning**'

hôte ê diephtheironto hoi pleistoi enataïoi kai hebdomaïoi hupo tou entos **kaumatōs**,

'...with the result that most people died on the seventh or eighth day because of the internal **fever**'

kai **apokatharseis** kholês pasai [[hosai hupo iatrôn ônomasmenai eisin]] epêisan

'and all kinds of vomitings of bile, as have been given a name by doctors, supervened.'

kai **hautai** meta **talaipôrias** megalês.

'and these (episodes of vomiting) occurred with great **distress**.'

all' anteikhe para doxan **têi talaipôriai**,

'but it (the body), put up with it, contrary to expectation in its **distress**,...'

The term *talaiporia* 'distress' in its second occurrence in this text, at least in some way, refers anaphorically to the first occurrence. However, it also is most likely a nominalisation that refers to the presumed state of distress associated not only with vomiting, but also other gastrointestinal and respiratory effects of the disease construed by the account so far. It is also interesting to note that this nominalisation in its first occurrence is in the experiential role Circumstance: accompaniment in a clause which contains the pronoun *hautai* 'these' which is in the role of Actor with ellipsed *epêisan* 'they supervened'. This pronoun in turn refers anaphorically to a nominalisation in the immediately preceding clause *apokatharseis* 'episodes of vomiting'. This particular nominalisation, like many others in this account, does not refer to or reconstrue prior events in the text.

For these particular nominalisations, there is no prior lexicogrammatical construal in the text of which these are nominalisations; instead, they refer, presumably exophorically, to those in other discrete prior texts, as well as denoting some feature of the disease being described in the current text. Most of these denote symptomatology, such as in the following example:

Thucydides 2.49

kai en ou pollôi khronôi katebainen es ta stêthê ho ponos meta **bêkhos** iskhurou;

'and in a short space of time, the illness went down to the chest with forceful **coughing**'

The nominalisation here *bêx* 'coughing' occurs for the first time in this account, and does not appear to reconstrue or refer to (that is, does not participate in the language's resources of reference underlying textual cohesion and coherence) prior sections of text. Instead, we have to presume (assuming that Thucydides is using linguistic resources of Greek in some common usage) that the nominalisation is 'imported' from prior uses of the nominalisation, and so exophorically refers to those prior instances,

and ultimately to some lexicogrammatical construal of events which is then logogenetically nominalised.

While there is no endophoric reference associated with these nominalisations, there appears to be some lexical cohesion between some of them. With respect to respiratory symptoms, there is cohesion between *ptarmos* 'sneezing', *brankhos* 'hoarseness, soreness of the throat' and *bêx* 'coughing'; in terms of the gastrointestinal system, there is cohesion between *apokatharsis* 'vomiting', *lunx* 'retching' and *spasmos* 'cramping pain'. These semantic relations are ones of contiguity (there being an implicit temporal, spatial or causal linkage between two or more entities) or partial synonymy. However, this is not the same as a reconstrual of prior text; instead, these relations have been presumably built exophorically, and so these nominalisations still refer exophorically, while lexically cohering with the other items in the text.

These exophoric nominalisations, which are not developed in the current text, have an important function in linking the account of the plague to other medical texts that existed at the time, and texts of other genres. Texts of other genres, although they view sneezing as an 'exceptional' function of the human body, also view sneezing as presaging some beneficial event, or as having some value for humans:

Aristophanes *Birds* 720 The chorus sings of the importance that humans place on the prophetic powers of birds

ornin te nomisdete [[panth' hosaper peri manteias dīakrinei;]] |||  
phēmê g' humin ornis esti, || **ptarmon** t' ornitha kaleite, ||  
xumbolon ornin, || phônên ornin, || therapont' ornin, || onon ornin. |||

You think a bird is [[all the things which indicate anything to do with soothsaying;]] ||| to you, a word is a bird, || you call a **sneeze** a bird, || a meeting a bird, || some sound an bird, || a slave a bird, || a donkey a bird. |||

Plato *Symposium* 189a Aristophanes explains how he managed to stop his hiccuping

ekdexamenon oun <<ephê>> eipein || ton Aristophanê hoti kai mal' epausato, || ou  
mentoi prin ge ton **ptarmon** prosenekhthênai autêi, || hôste me thaumasdein || ei to  
kosmïon tou sômatos epithumei toioutôn psophôn kai gargalismôn, || hoion kai ho  
**ptarmos** estin; ||| panu gar euthus epausato, || epeidê autôî ton **ptarmon** prosênengka.  
|||

<<He said>> that Aristophanes took this up || and said, || "Indeed, it has stopped, || but however not  
before I applied a **sneeze** to it, || so I wonder || if the good order of the body requires such noise and  
tickling, || such as **sneezing** is; ||| because it stopped at once, || when I applied the **sneeze** to it. |||

The word *ptarmos* has senses that denote both a single instance of sneezing, and (as the passage from Plato illustrates) used as an 'abstract' to denote the activity of sneezing in general. Secondly, the passages illustrate that the activity of *ptarmos* can be construed in both medical and non-medical contexts, but that it is always in relation to individual or human welfare. Thirdly, the word is used to denote either something that is indicative of some other separate phenomenon (as is the case in the context of prophesying) or an event or activity that can be considered in its own terms, and which can be related to other phenomena such as noise and preceding nasal irritation. These texts are most likely to have been written after Thucydides wrote his account; however, given that the activity of sneezing is regarded in similar terms in Homeric epic<sup>382</sup>, we can regard these texts as generally reflective of the 'good' status of the sneeze among the Greeks.

Although Thucydides construes the sneeze within the 'bad' context of the natural history of the plague, he, by using this nominalisation aligns himself with these other separate uses of the nominalisation. The effect of this is that the nominalisation is established as a clinically observable symptom. It may have an immediate cause, but

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<sup>382</sup> See, for instance, Homer *Odyssey* 17.541, cited in Liddell, Scott et al. (1968) p.1546.



it is also indicative (in the Peircean sense) of other concurrent or future events in a medical context, and for this reason is established as a 'symptom'. This is constructed through the exophoric reference of this nominalisation. In this way, these exophorically referring nominalisations have the function of aligning certain features of the plague with the construal of similar ones in different texts.

### 13.5.4 Nominalisation: coordination of observed illness and theoretical disease

We have already shown how there is a covert theory of the progression of the disease through the human body, and that this is construed as the corollary of the plague in society. Both the processes of disease and plague are referred to by nominal entities—*nosos*, *nosêma* and *ponos*— which, in the case of the disease, are construed to be moving through bodily space. In this account, we find that one of the functions of the nominalisation of the symptomatology is to coordinate pathogenic processes and symptoms with each other in such a way that the former is covertly construed to cause the latter.

Because pathogenic and clinical features are nominalised, there is now the potential for both to be combined (explicitly or implicitly) as participants in the one clause. Because disease progression is modelled in terms of spatial movement, it is usually the case that one of these is an obligatory direct participant in a clause, and the other an indirect participant, or non-obligatory direct participant.

Thucydides 2.49

katebainen	en ou pollôi khronôi	es ta stêthê	ho <i>ponos</i>	meta bêkhos iskhurou
<b>Process:</b> <b>material:</b>	<b>Circumstance:</b> <b>temporal: location</b>	<b>Circumstance:</b> <b>spatial: location</b>	<b>Actor/Agent</b>	<b>Circumstance:</b> <b>accompaniment</b>

<b>doing:</b> <b>dispositive</b> <b>+ middle</b>				
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	hautai	meta <i>talaipôriās</i> megalês
<b>Process: material:</b> <b>doing: dispositive +</b> <b>middle</b>	<b>Actor/Medium</b>	<b>Circumstance: accompaniment</b>

diephtheironto	hoi pleistoi enataïoi kai hebdomaïoi	hupo tou entos <i>kaumatos</i>
<b>Process: material:</b> <b>doing: dispositive +</b> <b>effective</b>	<b>Goal/Medium</b>	<b>Actor/Agent</b>

In this way, the modelled disease processes are mapped onto the clinically observable features of the disease, and also are involved in the one process. The effect of this is to provide a covert explanation of what is observable, and to suggest an 'experiential equivalence' between the model and what is observable. This is shown in the sense of *nosos* in clauses in generic stages subsequent to the Natural History:

Thucydides 2.50

genomenon gar kreisson logou *to eidos* **tês nosou** ta te alla khalepôterôs ê kata tēn anthrôpeian phusin

*The observed picture of the disease* became in other respects greater and more dangerous than human nature could bear...

From this clause it is clear that *nosos* refers not only to the observed symptoms and signs but also the modelled disease process— this is why Thucydides explicitly focuses

on the overall 'picture' of it (*eidos*)— and so *nosos* shows how theoretical model and observed features become experientially equivalent. In the discussion of Herodotus, a similar phenomenon occurs through the resources of anaphora. Thucydides, in this account of the plague, 'grammaticalises' this process by constructing the equivalence by involving two distinct levels of phenomena in the one process. The consequences are twofold. The covert theory gains legitimacy, because it becomes accepted as 'part of reality'. In addition, the observed features become 'theorised'— that is, they are organised with respect to the theoretical model that is constructed. Again, as in Herodotus, experience become organised through the semiotic practice of theorisation. This view is further reinforced by a further clause which summarises the account of the disease so far, before proceeding further with the Differentiation stage:

Thucydides 2.51

to men oun nosêma, hôs hekastôi etunkhane, || polla kai alla paraliponti atopias, || ti diapherontôs heterôi pros heteron gignomenon, || *toïouton ên epi pan tēn idēan*. |||

The disease, as it appeared to each person || to occur differently from one person to another, || if one leaves out many other points of peculiarity, || *was such a thing in overall picture*. |||

The 'overall picture' being referred to here is not only the observed features of the disease, but also the theoretical disease model which coordinates and 'underpins' these features. So even the concept of how a disease appears to one is 'semiotised'— that is, the theory of the disease— constructed through text— becomes an integral part of this 'picture', and informs the observed events.

It is important to note that nominalisation is not the only lexicogrammatical resource used to map theory to observation. Clause complexing has a role in this, and an examination of this complexing shows that is oriented towards incrementally building a picture and understanding of the disease.

Thucydides 2.49

kai hopote es tēn kardian stērixēien, || anestrephē te autēn || kai apokatharseis kholēs pasai [[hosai hupo iatrōn ōnomomasmenai eisin]] epēisan || kai hautai meta talaipōriās megalēs. |||

... and when it settled on the upper stomach, || it churned it || and all manner of episodes of vomiting of bile [[as have been named by doctors]] supervened, || and these did so with great distress. |||

<b>xβ</b>	<b>enhancing: temporal: prior: point</b>	stērixēien	es tēn kardian	
		<b>Process: material: doing: dispositive</b>	<b>Circumstance: location: space</b>	
<b>α +1</b>		anestrephē	autēn	
		<b>Process: material: doing: dispositive</b>	<b>Goal/Medium</b>	
<b>α +2 1</b>	<b>extending: additive: positive</b>	epēisan	apokatharseis kholēs pasai [[hosai hupo iatrōn ōnomomasmenai eisin]]	
		<b>Process: material: doing: dispositive</b>	<b>Actor/Medium</b>	
<b>α +2 =2</b>	<b>elaborating: elaboration</b>		hautai	meta talaipōriās megalēs
		<b>Process:</b>	<b>Actor/Medium</b>	<b>Circumstance:</b>

		<b>material: doing: dispositive</b>		<b>accompaniment</b>
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In this passage, the direct complexing between a disease process and observed patient signs– which links disease theory and observation to each other– is that of extension. This is the kind of complexing that is associated with building up a particular static picture of a given phenomenon. In this way, mapping the pathogenesis of the disease and the clinical course to each other in this way is intimately associated with incrementally building up an overall understanding of the plague. In other words, the extending logico-semantic relation here performs the same function as experiential configurations in individual clauses that involve nominalisation– to construct understanding by mapping theory and observation to each other. Both this kind of complexing, and the use of nominalisation, are resources at different lexicogrammatical levels with equivalent functions in theorising experience in this text.

### **13.6 Relational processes, conscious reflection, and 'stable points'**

In the discussion of Herodotus' text, it was suggested that the establishment of 'stable points' was an important aspect of theorisation. These points were from what theoretical statements were unfolded, and subsequent theorisation resulted in the establishment of new stable points. In Thucydides' account, this is also the case, although these points are established by different means at the level of lexicogrammar. However, as with Herodotus, relational processes play an important part in this aspect of theorisation.

### 13.6.1 Backgrounding anchor points: relational existential processes

Existential processes (here, treated as a subvariety of relational processes) play an important part in establishing 'anchor points' in the account, to which subsequent description is oriented. There is also evidence to suggest that these processes play an important role in the explicit theoretical formulation of a particular phenomenon, and that in particular an understanding of the plague of Athens requires such a theoretical formulation.

The construal of stable points typically occurs at points of transition between generic stages and at the beginning of the account. Existential processes play a particular role in this regard, as shown by the opening section of the account of the plague:

Thucydides 2.47

kai ontôn autôn || ou pollas pô hêmeras en têi Attikêi hê nosos prôton êrxato ||  
genesthai tois Athênaiôis

And while these things were occurring, || not many days later the plague first started in Attica || to  
become present among the Athenians...

ontôn	autôn			
<b>Process: relational: existential: existence + middle</b>	<b>Existent</b>			
êrxato	ou pollas pô hêmeras	en têi Attikêi	hê nosos	prôton
<b>Process: material: happening: behavioural + non-</b>	<b>Circumstance: time: extent</b>	<b>Circumstance: space: location</b>	<b>Actor / Agent</b>	<b>Circumstance: time: location</b>

ranged + middle				
genesthai	tois Athênaiōis,			
<b>Process: relational: circumstantial + ascriptive + middle</b>	<b>Carrier / Medium</b>			

These clauses serve to align the main preceding military narrative with the subsequent account of the plague, by taking the preceding events as the anchor point from which the account of the plague is unfolded. This anchor point is established by the configuration of a pronoun *autôn* that anaphorically refers to the preceding events, with an existential relational process. This serves to 'fix' the preceding events into a static picture which now acts as a 'background' to the events of the plague.

A variant of this use of existential processes is where they are used to construe events that explain or provide evidence for another event. This explanation or evidence so construed also provides an 'anchor point' for the proposition being made, and is a realisation in the experiential lexicogrammar of argumentative strategies.

Thucydides 2.52

*oikîôn gar oukh huparkhousôn*, || all' en kalubais pnigêrais hôrâi etous dīaitômenôn ||  
ho phthoros egigneto oudeni kosmôi

*Since there were not enough houses*, || but people lived in squalid huts during the summer season, || the destruction of the plague occurred without any order... ||

oukh huparkhousôn	oikîôn	
<b>Process: relational: existential: existence +</b>	<b>Existent</b>	

middle		
dīaitōmenôn	en kalubais pnigêrais	[hôrâi [etous] ]
<b>Process: material: happening: behavioural + non- ranged + middle</b>	<b>Circumstance: spatial: location</b>	<b>Circumstance: temporal: location</b>
egigneto	ho phthoros	oudenî kosmôî
<b>Process: material: doing: dispositive + middle</b>	<b>Actor/Medium</b>	<b>Circumstance: manner: qualitative</b>

In this case, the clause that construes a relational existential process construes events that are intended to be interpreted as supporting evidence for another construal of events. In Herodotus' account, such evidence is brought into relation with another statement through rhetorical structure. Here in this text, such relations are realised through clause complexing and the use of the existential process in the clause that contains the 'supporting information'. In a sense, such 'rhetorical moves' are being reconstructed and recoded within the ideational lexicogrammar, through clause complexing involving relational existential processes.

### 13.6.2 Relational processes and the statement of theoretical positions

The other important use of relational processes in this account is its role in the construal of theoretical positions within the account. This manifests itself in two ways. Firstly, they, as in Herodotus, are used to summarise what has been construed previously, in order to be the starting point for a new direction of development of the



account. Secondly, these processes are deployed in order to construe people's potential semiotic activities of theorisation. It is as if Thucydides assumes that if someone is to explicitly and consciously reflect on experience, they will construe such explicit construction of knowledge through relational processes.

As in Herodotus, relational processes are used to summarise what has preceded in the text, in order to develop the subsequent text in a new direction. The first clause of the Differentiation stage of the account illustrates this use of relational processes.

Thucydides 2.50

genomenon gar kreisson logou to eidos tês nosou ta te alla khalepôtêrôs ê kata tên anthrôpeïan phusin || prosepipten hekastôi

The observed picture of the disease became in other respects greater and more dangerous than human nature could bear, || and befell each person...

genomenon	kreisson logou...ta te alla khalepôtêrôs ê kata tên anthrôpeïan phusin	to eidos tês nosou
<b>Process: relational: intensive + ascriptive + middle</b>	<b>Attribute</b>	<b>Carrier</b>
prosepipten	hekastôi	
<b>Process: material: doing: dispositive + middle</b>	<b>Goal</b>	

The first of these clauses contains a relational process which reconstrues the previously described natural course of the disease. This is achieved through the relation being construed between the picture of the disease and the previously described acute, often fatal illness and its outcome. This in turn becomes the

departure point for discussion of how the plague is unlike other previous, familiar diseases– the purpose of the Differentiation stage.

As we proceed from the physical to the social and behavioural aspects of the disease's exceptional nature, the physical dimension is summarised again through an identifying relational process:

Thucydides 2.51

toïouton ên epi pan tên idëan.

... it (the plague) was such in overall appearance.

ên	toïouton	epi pan tên idëan
<b>Process: relational: intensive + identifying: decoding + middle</b>	<b>Value</b>	<b>Circumstance: manner</b>

Again, an anaphorically referring clausal element– the pronoun– participates as Value in this relational process. A similar case is the transition from the ineffectiveness of treatment to the description of despondency in sufferers– the transition into the first Reaction stage:

Thucydides 2.51

deinotaton de pantos ên tou kakou hê te athumïa

The most terrible thing of all the disease was the despondency...

ên	deinotaton...pantos tou kakou	hê te athumïa
<b>Process: relational: intensive + identifying: decoding + middle</b>	<b>Value</b>	<b>Token</b>

It is implicitly assumed by the language of Thucydides that theoretical positions and formulations of certain kinds of phenomena– whether this be the physical, psychological and social aspects of the plague– are construed through relational processes. Where the physical aspect of the disease is concerned, Thucydides' construal of his semiotic activities, and that of others, reflects this pattern.

Thucydides 2.48

aph' hopou eikos ên genesthai auto, || kai tas aitiâs hastinas nomisdei tosautês metabolês || hikanas einai || dunamin es [to [metastêsai]] ] skhein;

(let them say) from what it was likely to have occurred, || and whatever causes of such a great change of state he thinks || were sufficient || to have the power for causing a change

ên	aph' hopou	eikos
<b>Process: relational: intensive + ascriptive + middle</b>	<b>Circumstance: cause</b>	<b>Attribute</b>
genesthai	auto,	
<b>Process: relational: existential: existence + middle</b>	<b>Existent / Medium</b>	
nomisdei	tas aitiâs hastinas	
<b>Process: mental: cognitive + phenomenalisation: hyperphenomenal: metaphenomenal: idea + effective</b>	<b>Phenomenon</b>	
einai	[tosautês metabolês] hikanas	
<b>Process: relational: intensive +</b>	<b>Attribute</b>	

<b>ascriptive + middle</b>		
skhein;	dunamin es to [ metastêsai ]	
<b>Process: relational: possessive + ascriptive + effective</b>	<b>Attribute</b>	

When referring to other people's potential theorisation about the plague, Thucydides envisions the final statements to come out of such theorisation as at least having the potential to be construed in terms of a relational process, just as Herodotus attempts a statement about the sun being the cause of the Nile's behaviour. Such statements are meant to be endpoints of such theorisation– the final theoretical formulation of a given phenomenon. In this way, this use of relational processes in theorisation is also about the establishment of 'stable points'. However, these are *new* stable points in a theorising text, which have the potential to be stable points from which further reflection can be made. In any case, these relational processes most likely have an important role in the explicit construction of a theoretical statement, and therefore in the conscious construction of knowledge and understanding.

### 13.6.3 Relational processes and the theorisation of history

It is interesting to note that in the General Consequence stage of the account, there is frequent use of relational processes. Out of the 28 clauses in this stage, 8 of these contain relational processes. This is in similar proportion to that found in the Natural History stage, where there are 19 relational process clauses out of a total of 61 clauses. We have already noted that relational processes are used in the theorisation of the disease. A similar kind of theorisation is occurring in the General Consequence stage of the account, but the orientation of this theorisation is different– that is, relating the phenomenon of the plague to those changes in Athenian society that are relevant for explaining its political and military decisions in the subsequent parts of

the History. Nevertheless, it is theorisation, just as is occurring in the description of the course of the disease, and relational processes are an important part of construing that theory.

Thucydides 2.53

to men krinontes || en homoïôi [kai |[sebein]] kai |[mê]] ] [ ek tou |[pantas horan || en isôi apollumenous]] ] [^EINAI]

...coming to the judgement || that [ |[paying respect to the gods]], and |[not paying respect]] ], [^WERE] equivalent, [from |[seeing everyone || equally destroyed]] ] ...

krinontes			
<b>Process: mental:</b> <b>cognitive +</b> <b>phenomenalisation:</b> <b>hyperphenomenal:</b> <b>metaphenomenal: idea +</b> <b>effective</b>			
[^EINAI]	en homoïôi	[kai  [sebein]] kai  [mê]] ]	[ ek tou  [pantas horan    en isôi apollumenous]] ]
<b>Process: relational:</b> <b>circumstantial +</b> <b>ascriptive + middle</b>	<b>Carrier /</b> <b>Medium</b>	<b>Attribute</b>	<b>Circumstance: cause</b>

The theorised people's attitude to social and religious responsibility, and the cause for it, is construed as a relational process with a Circumstance of cause, just as are the features of the natural course of the disease in the individual. Thus we may be able to say that relational processes have an important role in constructing theoretical positions concerning any order of phenomenon, whether this is be physical,

psychological or social. This necessarily implies that the kind of linguistic resources deployed by Thucydides is not substantially different when reflecting upon either the physical, psychological or social effects of the plague or disease.

#### 13.6.4 Relational processes are not just markers of 'authorial style'

It may be argued that this use of relational processes is simply a reflection of Thucydides' style— as noted before, Thucydides tends to use a highly nominalised, abstract style<sup>383</sup> which is not only found in accounts such as these but also narrative sequences, such as in the following passage:

Thucydides 3.22

êsan de [ [eustaleis te [têi hoplisei] ] kai |[ton aristeron monon poda hupodedemenoi  
asphaleïas heneka [tês pros ton pêlon] ]| ].

They were [ [in good order [with their armour] and |[with only their left foot shod for the sake of  
security [in the mud] ]| ].

êsan	[ [eustaleis te [têi hoplisei] ] kai  [ton aristeron monon poda hupodedemenoi asphaleïas heneka [tês pros ton pêlon] ]  ].
Process: relational: intensive + ascriptive	Attribute

If we accept that this is simply a matter of 'authorial style', this considerably weakens the case that relational processes and nominalisation are limited to explicit theoretical statements in Thucydides.

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<sup>383</sup> See Denniston (1952), p.18-22, 28-29.

However, a number of arguments can be brought against this position. Firstly, it is not being argued here that relational processes are limited to the construal of explicitly theoretical statements; instead, theoretical formulations are more likely to be construed through relational processes in the lexicogrammar. This does not preclude the use of such processes with a different function in a different context, as in the extract from a description of battle narrative above.

Secondly, Thucydides was writing subsequent to and during a period of significant linguistic and semiotic innovation—significant among these being the development of conscious reflection on experience in 'natural philosophy' and medicine. Given this kind of innovation and experimentation in the surrounding culture, we would expect that Thucydides might occasionally use these resources 'inappropriately' in his historiography, such as the construal of a particular event in a narrative<sup>384</sup>. In the above extract from book 3, the interpretation of the narrative event is slightly difficult, and it takes some effort on the part of the audience to understand that the soldiers have footwear on only one foot so that they can get a secure grip on the muddy ground through which they are proceeding.

If one is judging this construal of this narrative event in terms of its 'clarity', then Thucydides' choice of a relational process with an adjectival group complex with embedded groups and clauses does not meet this requirement; this is a product of the 'loss of information' that is typically associated with relational processes and nominalisation<sup>385</sup>. Thus, in this sense, Thucydides uses this kind of lexicogrammar whose function is somewhat at odds with the overall context of situation. However, it might be expected that Thucydides is also trying to innovate in terms of his use of

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<sup>384</sup> See Denniston (1952) p.18-19 which refers to the period of experimentation in the classical period which led to some 'artificiality' and inappropriateness of expression, which was to be later parodied by Aristophanes.

<sup>385</sup> For this comment on relational processes, nominalisation and lexicogrammatical metaphor, and a demonstration of this phenomenon in scientific discourse in English, see Halliday (1998) p.226-227; this also interprets the same phenomenon in terms of some varieties of lexicogrammatical metaphor as being 'ambiguous' in sense—particularly complex nominal groups.

Greek in historiography, and that this innovation is influenced by what is going on in the context of culture. Innovation does not always equate with 'success'. Thus we may view the above example as an example of such innovation.

Thirdly, the above objection assumes that 'authorial style' is simply a function of idiolect— that is, it is a product of one's individual way of construing, saying and meaning. This position is quite valid in itself— this is why one can say, with justification, that the degree of nominalisation and abstraction in the History is a linguistic feature that marks out Thucydides from other ancient Greek authors as we know them, because those other authors do not nominalise or abstract to a significantly similar degree. However, to say that a particular feature is idiolectal— and thus to say it is part of 'individual style'— is a description of the phenomenon, but not an explanation of it. It is one thing to enumerate the linguistic features that distinguish one author from other authors, but quite another to explain the factors that motivate the deployment of such features, which is what is being attempted in this thesis. Thus to object that what is being said about relational processes because it is part of Thucydides' idiolect is not an objection to what is being proposed here, because it is not a competing explanation of the phenomenon.

### **13.7 The construction of objectivity: impersonal agents of verbalisation and perception**

One feature that significantly contributes to the semiotic shape of conscious reflection in the account of the plague, and which is not found in Herodotus' theory of the Nile, is the relatively 'impersonal' way in which the account is unfolded and in which any theory of the plague is presented. In Herodotus, the audience is left in no doubt as to who is propounding the theory— the Novel Symbolisation generic stage of the account has an important role in this. However, Thucydides also makes it clear, in the Motivation stage of the account of the plague, what he is going to do in his subsequent account, and thus clearly identifies himself as the person responsible for any subsequent construal of the events associated with the plague. However, in



Thucydides' account, within all of the generic stages, there is a certain degree of impersonality construed both in verbal and mental processes, and in the construals projected from such stages. The effect of this is to create a degree of 'objectivity' in what is being construed. Furthermore, in order to construe 'subjective' viewpoints from which the author wants to distance himself, human participants are specified for verbal and mental processes at particular points in the account. It thus appears that there is some conscious control of these lexicogrammatical resources in order to include certain construals of the events associated with the plague within an 'objective' theory, and to relegate others to 'subjective viewpoints'.

### 13.7.1 Unspecified main participant in verbal processes

A prominent feature of the lexicogrammar of the account is that in many places the main participant of mental and verbal processes is not specified, and whose specific identity cannot be recovered directly from the co-text. 14 clauses in the account contain verbal processes, or ellipsed verbal processes. Of these, 4 (clauses 4, 17, 22, 120) have an unspecified Sayer which cannot be recovered from the text. An example of this is the following:

Thucydides 2.47

legomenon men || kai proteron pollakhose engkataskêpsai kai peri Lêmnon kai en allois khôrïois

(the plague) being said || to have afflicted many places around Lemnos and around other places...

legomenon			
<b>Process: verbal + effective</b>			
engkataskêpsai	proteron	pollakhose	kai peri Lêmnon kai en allois khôrïois,

<b>Process: material: doing:</b> <b>dispositive + middle</b>	<b>Circumstance:</b> <b>time: location</b>	<b>Circumstance:</b> <b>space: location</b>	<b>Circumstance:</b> <b>space: location</b>
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The first of these clauses contains a verbal process, with the plague the ellipsed or implied Matter. However, the Sayer of this process is not directly recoverable from the preceding co-text. It may be possible to assume that the impied Sayer refers to the Athenians mentioned in clause 3; however, one cannot exclude that the Sayer is implied to be some other person or people other than, or as well as, the Athenians. For this reason, we cannot say that the Sayer was 'ellipsed', because, if it is ellipsis, there is no definite human participant to which it endophorically or exophorically refers.

Overall, we have a particular comment about the origin of the plague which is projected from a verbal process with no explicit or recoverable Sayer. This has implications for how 'objective' this information about the plague is intended to be. By the very fact that the information is projected, a certain degree of subjectivity is construed. However, because the projection cannot be attributed to any single person or group of people, it is construed as 'objective' knowledge about which there is general agreement. This contrasts with knowledge that is projected from a directly recoverable Sayer, as in the following clauses:

Thucydides 2.54

phaskontes hoi presbuteroi || palai âidesthai || 'hêxei Dôriakos polemos || kai loimos ham' autôi'.

...the older people declaring || that (the oracle) long ago proclaimed || "A Dorian war will come, || and a plague along with it."

phaskontes	hoi presbuteroi	
<b>Process: verbal: verbalisation: as</b>	<b>Sayer</b>	

<b>locution + receiver : reporting + indicating + effective</b>		
âidesthai	palai	
<b>Process: verbal: verbalisation: as locution + non-receiver: quoting + indicating + middle</b>	<b>Circumstance: temporal: location</b>	
hêxei	Dôriakos polemos	
<b>Process: material: doing: dispositive + middle</b>	<b>Actor / Medium</b>	
	loimos	ham' autôî
<b>Process: material: doing: dispositive + middle</b>	<b>Actor / Medium</b>	<b>Circumstance: accompaniment</b>

Here, the Sayer in the first clause with the verbal process is directly recoverable. This has the effect of making the projected content more subjective. It is implicitly construed as not having wide or general acceptance, unlike the first example. Importantly, Thucydides is signalling to his audience that he regards this particular piece of information as more subjective than his information on the origins and geographic spread of the plague.

Mental processes capable of projection are also used in a similar way. 32 clauses of the account contain mental processes, and of these 8 have an unrecoverable Senser (6, 45, 68, 99, 107, 110, 122, 203). One of these examples is as follows:

Thucydides 2.49

hôs homologeîto, || to men gar etos ek pantôn malista dê ekeino anoson es tas allas astheneîas on || <<etunkhanen>>

As was agreed, || that year out of all years <<happened>> to be particularly free from other illnesses...

homologeito			
<b>Process: mental:</b> <b>cognitive +</b> <b>phenomenalisation:</b> <b>hyperphenomenal:</b> <b>metaphenomenal: idea +</b> <b>effective</b>			
on	to etos...ekeino	[ek pantôn malista dê]...anoson	es tas allas astheneías
<b>Process: relational:</b> <b>intensive + ascriptive +</b> <b>middle</b>	<b>Carrier</b>	<b>Attribute</b>	<b>Circumstance: role</b>
etunkhanen			
<b>Process: relational:</b> <b>existential: existence +</b> <b>middle</b>			

Again, we have a particular observation about the circumstances surrounding the plague that is projected from a mental process with an unrecoverable Sensor. This is intended to construe knowledge about which there is general agreement; however, because this information is projected, there is a certain degree of subjectivity associated with it. However, this construal is supposed to be more 'objective' than when information is projected from a recoverable Sensor of a mental process:

Thucydides 2.53

hôte takheĩas tas epaurêseis kai pros to terpson poieisthai, <<êxioun>> || ephêmera ta te sômata kai ta khrêmata homoiôs || hêgoumenoi.

As a result <<they thought>> it was the right thing to do what brought swift enjoyment and what gave pleasure, || believing || that their physical selves and their possessions were ephemeral.

poieisthai	takheĩas tas epaurêseis kai pros to terpson		
<b>Process: material: doing: dispositive + middle</b>	<b>Range</b>		
êxioun			
<b>Process: mental: cognitive + phenomenalisation: hyperphenomenal: metaphenomenal: idea + effective</b>			
	ephemera	ta te sômata kai ta khrêmata	homoiôs
<b>Process: relational: intensive + ascriptive + effective</b>	<b>Attribute</b>	<b>Carrier / Medium</b>	<b>Circumstance: manner: degree</b>
hêgoumenoi			
<b>Process: mental: cognitive + phenomenalisation: hyperphenomenal: metaphenomenal: idea + effective</b>			

In these clauses we have mental cognitive processes whose Senser is recoverable from the text– that is, the members of the Athenian population, who are dealing with the psychological trauma of the plague. As such, what they think– construed as projections from these mental processes– is necessarily 'subjective'. That is, what they think is their opinion alone, and not necessarily (and probably not) that of the author. This is achieved because the specificity of the Senser in these clauses would exclude Thucydides from the opinions being projected.

### **13.7.2 A cline of subjectivity and the conscious construction of knowledge**

Thus, with regard to projecting mental and verbal processes, we have a correlation between the degree of subjectivity of information, the use of projection, and the recoverability and specificity of main participants in verbal and projecting mental processes. In this way, the ideational lexicogrammar of mental and verbal processes in the account has a crucial role in the covert construction of different 'levels of knowledge'. There is a cline from 'objective' knowledge which is not projected from mental or verbal processes, through to propositions projected from mental and verbal processes whose main participant is unrecoverable, through to ellipsed Sensers and Sayers, and then to their explicit construal in the presentation of the most 'subjective' propositions.

A full examination of this issue is beyond the scope of this thesis. In order to fully explore this issue, one would also have to examine the interpersonal lexicogrammar of the account and of ancient Greek text generally. In particular, one would need to examine the use of modality and modal adjuncts, and also the deployment of appraisal systems, in order to fully understand this issue. However, it will suffice to say that in this account the ideational lexicogrammar has a very significant role in this regard,

and the effect of this is to construe 'objectivity' and 'subjectivity' as an experiential phenomenon and as 'part of reality'. Subjectivity is an integral part of the levels of explicit knowledge being constructed by the account— what people are responsible for what kinds of knowledge— and this may hold true for all of Thucydides' history.

### **13.8 Conclusion: the experienced world construed with respect to systematising knowledge**

It can be said that, in his deployment of lexicogrammatical resources, Thucydides both incorporates the linguistic practice embodied in Herodotus, and extends it further. Despite an avoidance of explicitly stating a theory— unlike Herodotus— Thucydides covertly constructs a theory in his description of the plague, and in this sense is engaging in the same kind of linguistic activity as does Herodotus. He embodies a theory of disease in his description of the physical aspect of the plague, and this theory is modelled analogically on the movement of the phenomenon from one geographical place to another. But he also constructs two other theories, related to each other, during his description. He also embodies a theory of historical events in his description of the psychological and social aspects of the disease. Thirdly, he constructs a literary theory— an implicit statement on the relationship of the human condition to its physical and social surroundings— which has some commonalities with other literary genres that were being constructed in Athens at the same, particularly tragedy. These theories are built up through the lexicogrammatical selections of clauses, and their construal of the interaction between the plague and humans, and of the agentive roles of both.

The other point of difference from Herodotus is that these theories are constructed in a relatively covert fashion. Various means are used to achieve this, such as the use of exophoric and endophoric nominalisation to map the described aspects of the plague onto a theory of disease processes and causation, and to map that description with reference to other separate texts to which they exophorically refer. This helps to align the description with a previously developed body of explicit theoretical knowledge,

while maintaining a certain 'objectivity' of description in the present account. Furthermore, causation—generally an important part of a theoretical account of a phenomenon—is also constructed covertly, through relatively 'ambiguous' clause complexing relations, and the meaning relationship between clausal elements. The semantic environment of 'narrativised argument'—both in terms of rhetorical structure and generic structure—skews the interpretation of these meaning relations toward causation, and thence to a 'theorised' understanding of the described events. The resulting theorised description then has the potential to be reconciled with a particular explicit theory that may be developed in the future. In short, experience is theorised in this way to become 'data', as happens in the rhetorical structure of the account.

There is evidence that this theorised understanding, like in Herodotus, is structured according to the development of text. At major transition points of the account, there is a repackaging of prior experience through relational processes, from which a new 'take' on the phenomenon is developed, thus developing the overall 'picture' of the plague and its effects. Furthermore, there is evidence in the account that final theoretical positions and judgements are construed in such terms—they are a logogenetic reconstrual of events through relational processes, which have the potential to be new starting points for further discussion and development.

The lexicogrammar of the account also shows that there is an increasingly conscious awareness of different kinds of knowledge, and of the related issue of 'subjectivity' and 'objectivity', in terms of how widely shared and agreed upon that knowledge is. Different kinds of people are responsible for different kinds of knowledge. The degree of 'objectivity' of knowledge is covertly construed in terms of how many people project a particular proposition or set of propositions. This seem to suggest that the notion of 'objectivity' was socially based in classical period Greece at least up until the time of Socrates and Plato. In this conception, enduring knowledge and 'truth' was the product of a number of people—not just one person—working together, either through cooperative or adversarial dialogue to come to 'consensus positions'. Thucydides uses this implicit notion to construe his own viewpoint on the significance of events as being 'objective', by presenting them through the



lexicogrammar of verbal and mental processes as being points on which people are in substantial agreement.

## **CHAPTER 14**

### **Perception through theorisation: text as the 'sixth sense'**

Through the linguistic analysis presented in Part 2 of this thesis, it can be seen that the activity of theorisation, and of constructing 'scientific' accounts of the experienced world, develops out of the recombination of linguistic resources that had been present at the time of the composition of the Homeric epics. The most important element of this recombination appears to be the simultaneous deployment of narration and description with argumentation. This is achieved through the combination and development of semantic and lexicogrammatical resources in ancient Greek, and this occurs at a number of linguistic levels and strata simultaneously. The reason why this occurs is that both are needed in the production, reception and further development of theorisation. Theories, such as the ones discussed in this thesis, concern themselves with an aspect of human experience, the construal of which is not yet established in the cultural practice of a community. They aim to change this status in some way—either to propose a definitive model or explanation, or to move their audience in a direction to do so or to engage with the model presented. To do this, an experiential, relatively abstract model needs to be presented in combination with a persuasive strategy. As a result, a theory of experience comes about, as well as the potential for that theory to be extended, modified and replaced. The recombination of linguistic resources to enable this also create a 'self-propagating' cultural activity. In ancient Greek, this development takes on a particular trajectory, from Homer to Thucydides.

As the activity of theorisation develops, and extends to having a role in the reception of the experienced world, it can be seen that the use of linguistic and semiotic systems acts as a 'sixth sense', in the sense that whatever understanding is achieved through the development of a theorising text, the knowledge so gained about the surrounding world is considered 'equivalent' to what is understood 'directly' through the senses. However, the cultural activity of theorisation itself, by structuring experience with

respect to text, begins to adopt an instrumental role in 'making sense' of what comes through any of the senses, by construing 'sense data' in terms of a theoretical model, and predicting or assuming the existence of as yet unperceived entities through such a model. Thus theorisation becomes a 'mental tool' for dealing with experience— a position that is Vygotskian in at least some respects, but now is also a position that is adopted by those approaching perception from a modern 'scientific' perspective, such as Richard Gregory and Daniel Dennett<sup>386</sup>. Linguistic studies such as that presented in this thesis have a useful contribution to make to philosophical debates about the role of the senses and the 'mind' in the construction of knowledge.

## **14.1 From conscious reflection to theorisation: from epic to Herodotus**

The theory that Herodotus presents about the flooding of the Nile is one of significant complexity and intricacy. It commingles persuasive and construing activities through both its intricate rhetorical structure and clausally-oriented functions within a generic structure. This produces not only a theoretical account of the phenomenon to be explained, but also a reconstrual of that phenomenon within an established form of semiotic culture, and a legitimisation of a semiotic tool in the comprehension of experience.

This is a significant development over what was achieved by the simile and simile-like linguistic phenomena in Homer, such as the 'conscious reflection' on the nature of humankind in the sixth book of the *Iliad*. However, against the background of Herodotus' theorisation, it is easy to lose sight of the significant linguistic resources developed by the time of epic poetry to realise the kind of conscious reflection that carries on into Herodotus and beyond. In particular, it is in Homer that we find that two functions— comparison and persuasion— can be simultaneously deployed through

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<sup>386</sup> See Butt (2004) p.221-223.

the same linguistic choices to enable and perform conscious reflection; this simultaneity is a major means by which Herodotus also reflects on experience. Herodotus appears to exploit and extend to a significant degree the linguistic potentials that had been developed by the time the Homeric epic was set down in written form. He does this by generalising duality of function and simultaneity as a semiotic motif at a wider range of linguistic levels and strata.

Moreover, in his mythological explanation of human affairs, Hesiod also construes a direct causal and temporal link between the 'causative' divine sphere and usual human experience. Herodotus does the same, even if he does propose instead a realm of experience insensible to ordinary perception that is *not* based on an anthropomorphic model. In any case this invisible world can be thought to be analogous to Hesiod's divine sphere, in terms of its causative function.

So what does Herodotus do that both Hesiod and Homer do not? The first factor that has a bearing on this question is the radically different context of situation and culture that surrounded the Homeric epic, Hesiod's work, and Herodotus' history. The second factor lies with the different degrees of deixis that each of these three authors has, and its implications for the degree to which a conscious reflection can be extended either by the authors or their audiences.

### **14.1.1 Contextual factors**

The context of situation and culture varies widely between Homer and Hesiod on the one hand, and Herodotus on the other. This has a direct bearing on the kind of explanation or reflection on experience that each of these authors constructs, and to what extent each of them is in a position to do so in an extended way. These issues resonate most directly with the context of situation, particularly Field and Mode.

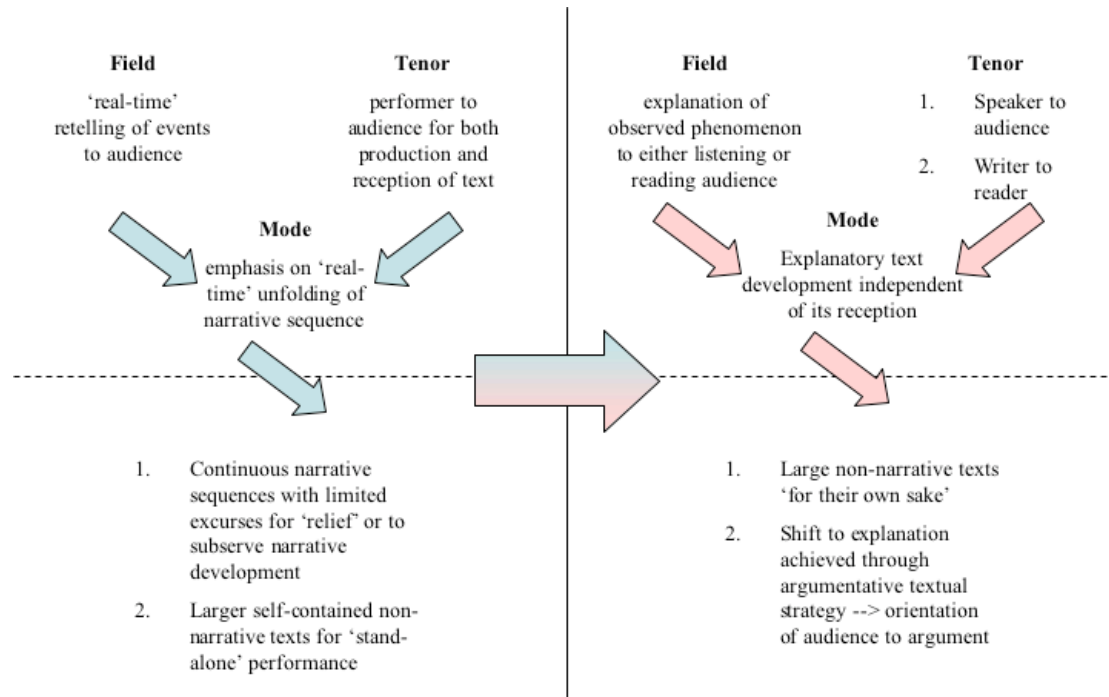
### 14.1.2 The Field of Homer: constraints on the development of extended explanation

The Field associated with the *Iliad* in general is principally to narrate the story of the 'wrath of Achilles' at the battle of Troy. Many other features unfold as the text unfolds— characterisation, dialogue, the description of the divine sphere of influence and its impact on human action, for example— however, one of the main threads of this epic poem is always the recounting of events that comprise this significant episode of a monumental battle. This story is told as a historical (in terms of what the Greeks of the time thought as 'historical') record of an event that is construed to essentially define the Greeks culturally, and also as a performance of the poet to an audience, which was probably set to musical accompaniment, or at least had the potential to do so. In terms of Mode, this meant that there is a narrative unfolding in spoken Medium and Channel which intends to favourably highlight things Greek, as well as the heroism of the main characters in the dialogue.

However, because the poetry was orally performed, and because there was also a need to hold an audience's attention, there was limited scope for an excursus from the narrative thread that was large enough to significantly disrupt the telling of the story. If there were large excurses, they tended to comprise a relatively large piece which could be performed independently, such as the description of the making of Achilles' shield in book 18 of the *Iliad*, and thus in themselves have no excursus internal to them. In short, the Field and Mode ensured that there was limited scope for sizeable digressions from the narrative in the one performative situation. Because of this, similes, and other relatively 'unconnected' events, also tended to be limited in scale, and their function was oriented to the performative aspect of the epic poem— they were there at least partly to provide 'relief' from drawn out battle scenes, or, as the discussion of Homer has explained, a device that subserves enabling the narrative to be subsequently unfolded in a particular way. The activity of conscious reflection on experience did not sit easily with the Field and Mode of Homeric epic. Therefore, even though there were significant linguistic resources to do so, there was limited scope to extend such reflection, because this would divert the poet and audience away

from the functions they intended to fulfil in their roles in production and reception of the epic.

In contrast, Herodotus, in his account of Egypt, is not concerned with narration, but rather with description and explanation where explanation is thought to be required. Furthermore, the written Channel had become more firmly (though not completely) established, which freed composition and development of the text at least to some degree from any immediate performative context. Both of these provided the environment in which Herodotus could freely propose and extend, virtually at will (although even a reading audience would tire at some point), a conscious reflection of a given phenomenon, to whatever degree of detail the author thinks is appropriate. Even though Homer can conceive of observed states of affairs without reference to the divine sphere– as he does when comparing humans to leaves on a tree– he cannot extend such reflections without significant disruption to the Field and Mode of the epic as a whole.



**Figure 14-1 Differential textual development between Homeric epic and Herodotus**

### 14.1.3 Similes within narrative: leaving, only to return

The structure of the simile– essentially the only way in which the poet can consciously reflect on observable experience without recourse to the divine sphere– also militates against any extension of consciously reflective thought. The generic staging of the simile and the functions of those stages are always configured with respect to the expectation by the audience that the poet is 'leaving' the narrative to engage in a simile, only to, or in order to, return to the main narrative. This is reflected in the way that similes can often redirect the construal of the narrative, and are therefore constructed with respect to the narrative function of the epic. In contrast, Herodotus' theory is always oriented to description and explanation, rather than recounting specific events. This is because, as we have seen, there is a

considerable blurring between the construal of the phenomenon and its explanation. Any explanation in the theory produced by Herodotus contributes to the description of the phenomenon to be explained, which is to what the unfolding of the theory is oriented in any case. Therefore, unfolding the theory becomes equivalent to unfolding a description of observable events, and thus is in keeping with the Field and Mode of the second book of Herodotus' history. This theoretically allows an almost *ad infinitum* extension of theoretical or consciously reflecting discourse.

#### **14.1.4 Commonality between Hesiod and Herodotus**

Though on the surface Hesiod writes in oral epic, the associated Field and Mode is very different to that of Homer, as well as Herodotus. The overall purpose of *Works and Days* is to provide moral and practical advice to his brother Perses, and more indirectly to provide a particular 'world view' to a larger audience. This advice is construed to be in accordance with what the world is like in terms of the human condition and human livelihood, and how it came to be that way. The story of the gift of Pandora to Epimetheus is intended to explain why human life is replete with hardship and toil, against which optimism is the only defence. The story is essentially a series of specific, temporally organised events, the outcome of which is a habitual state of human affairs, but these events are also intended as evidence for the final claim that Hesiod makes about the constant hardship that accompanies human life. Even though Hesiod invokes a social and psychological model of causation, via the causative divine sphere, the Field has important affinities with that of Herodotus, because he attempts to provide an explanation at a relatively 'opaque' level of an observable state of affairs.

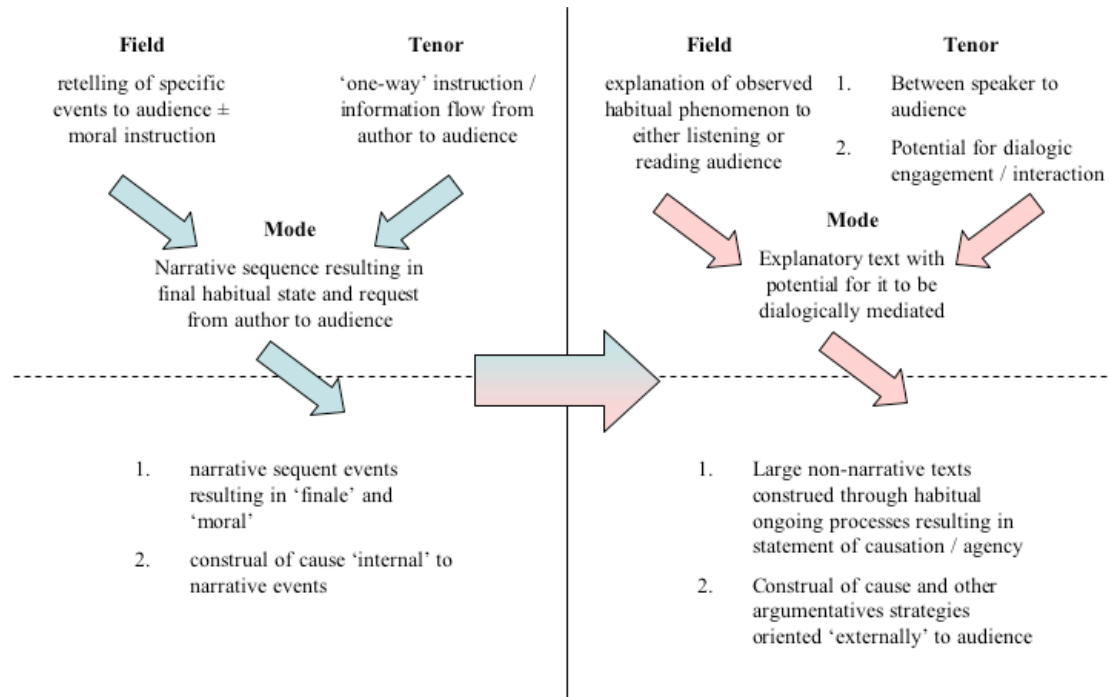
#### **14.1.5 Relative lack of internal orientation in Hesiod**

However, one of the important aspects of the divine sphere that Hesiod construes is that it, and its constituent events and entities, is simply stated to exist or be taking place. Unlike Herodotus, there is no use of the rhetorical resources of providing



evidence for these actions and entities within the explanation itself. The events and entities are simply stated to be there or taking place, without any semantic strategies of the author showing evidence or providing justification to his audience. If there is any construal of causative relationships, it is always completely internal to the divine sphere, such as Zeus' wanting revenge at being tricked, which informs his ordering of Hephaestus and the other gods to make Pandora. These causative relationships do not have any direct role in the overall persuasive strategy that Hesiod intends on Perses, or on any audience of the poem; this is in contrast to Herodotus, where rhetorical relations of evidence and justification in his theory are intended to be oriented to his audience.

As mentioned before, the Field is ultimately to provide ethical and moral advice to his brother. The effect of this is quite different to that achieved by the realisation of the Field associated with Herodotus. Hesiod does not provide to his brother the means to react to the construal of events in the Pandora story, to either challenge it or to focus on causative events within the story; instead, he draws Perseus' attention to the ethical and moral implications of the 'finale' of the story. Hesiod is prompting his brother to act in a moral way in his life, and in accordance to 'the way things are'. He does not persuade him to challenge the causative framework that leads to the final state of humans living in hardship and toil, and in this respect the story of Pandora as an explanatory text is quite different in scope and purpose to Herodotus' 'story' about the Nile. Hesiod wants his brother to accept his advice, not to challenge the explanation of the world that underlies the advice that he gives.



**Figure 14-2 Differential textual development between Hesiodic epic and Herodotus**

### 14.1.6 Field of Hesiod oriented to storytelling and clear generic segmentation

Furthermore, even though the Field of Hesiod's work is oriented towards moral and ethical instruction, he also ostensibly is oriented to telling Perses mythological stories, as his opening of the story of the successive generations of gods and men:

Hesiod *Works And Days* 106-107

ei d' etheleis, || heteron toi egô logon ekkoruphôsô eu || kai epistamenôs

If you wish, || I will tell you in summary another story, well, || and skilfully...

For the same reasons as with Homer, the focus on narrative through much of Hesiod's work significantly curtails the potential for a relatively free extension of an explanatory framework. The narrative sequence of events in the divine sphere must eventually have an endpoint, as indeed most narrative genres have an obligatory Final Event and Finale in their generic configuration. Furthermore, the divine and human spheres are kept quite distinct, as shown by the quite clear generic segmentation of divine and human events in the generic structure of the Pandora story, and thus there is little opportunity for 'blurring' between explanation and observation. As a result, any extensive fleshing out of this causative framework, with supporting semantic relations of evidence and justification, would also significantly disrupt the Field and Mode associated with *Works And Days*.

The story of Pandora is a series of narrative events, set within a Field that specifies narration as one of its functions. We have already explained how this in itself limits the potential for an extended, consciously reflective semiotic modelling of experience. However, the other feature of narration is its relatively concrete deixis, and this too limits the extent to which a theory can be extended, and the extent to which knowledge can be consciously built up about a given domain of experience. This will now be discussed.

## **14.2 Deixis and extensibility**

### **14.2.1 Absolute and relative deixis**

Narrative events are almost by definition specific to time and place. Even in fictional stories that refer, on the surface, indistinctly to far away, make-believe lands or places in distant time, it is still implicit in narrative that the events that comprise it are anchored, and unfold, from a specific given place and time. This shows events in narrative are deictic<sup>387</sup>. Furthermore, narrative displays absolute and relative deixis<sup>388</sup> – that is, not only are the events coordinated with each other spatially and temporally (relative deixis), but also the narrative has a clear overall temporal organisation or 'timeline' confined to a particular spatial domain. It is also positioned with respect to the events construed in other, relatively separate narratives, and with reference to the context of production or reception of the text (absolute deixis).

This applies not only to fairytale and mythological narratives such as that of Hesiod, but also the recount of historical events, such as the battle narrative that constitutes a large part of the Homeric epic, and indeed Herodotus' history as a whole.

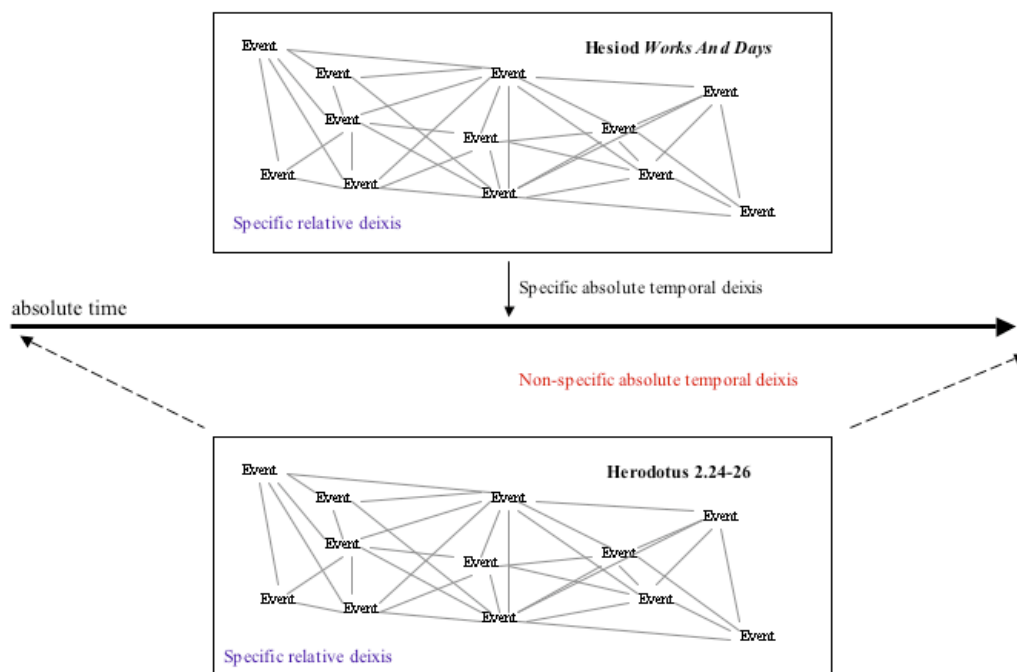
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<sup>387</sup> For this definition of deixis, particularly in relation to tense systems in a language, see Comrie (1985) p.13-18. This makes a distinction between deixis of the speaker and audience from that of a third person not involved in the linguistic interaction; it is this latter notion that is adopted here.

<sup>388</sup> This builds on the notion of absolute and relative tense, as explained by Comrie (1985) p.56-82. This distinction becomes most apparent with the interpretation of tense in main and subordinate clauses in a language, where the tense of the subordinate clause indicates the temporal location and extent of an event relative to the event of the main clause; the tense of the latter indicates temporal location and extent 'absolutely' – that is, with reference either to the time of production or reception of a given text.

### 14.2.2 Lack of absolute deixis in Herodotus and habituality

However, this is not entirely the case with Herodotus' theory of the Nile's behaviour. It does realise relative deixis, as shown by the number of temporally enhancing clause complexes, which in turn demonstrates that the various events that are construed in the theory are temporally coordinated with each other. However there is relatively little absolute temporal deixis. The most specific indication of absolute temporal deixis is that the events construed in the theory are thought to extend over the seasonal cycle of the variation in the flow and level of the Nile. However, it is not specific to any one seasonal cycle; instead, the events are held to be in operation in any seasonal cycle that the Nile undergoes.



**Figure 14-3 Absolute and relative temporal deixis in Herodotus' theory of the Nile**

### **14.2.3 The function of the present indicative in Herodotus' theoretical discourse**

In the lexicogrammar, this is primarily realised by the selection of 'present indicative' inflectional morphology in the verbal forms of all of the clauses in the theory. In the traditional grammar, it is well recognised that 'present tense' morphology is not only used to construe present tense in the 'absolute' sense (that is, the construed events are thought to be occurring at the time of production and / or reception of the text in which those events occur), but also is used to construe durative or progressive aspect, where the event is construed to be ongoing at the time of speaking; it also can construe regular, habitual action<sup>389</sup>. In many cases, as in Herodotus' text, these selections of tense, aspect and mood are mapped concurrently onto the same inflectional form. Thus, by the use of the present indicative forms of verbs, there is considerable diminution of the absolute temporal deicticity of the events construed in the theory.

### **14.2.4 The relationship of present indicative functions to expansion types in clause complexing**

It is reasonable to assume that this use of the present indicative has a role in realising the type of clause complexing and semantic relational structure of the theory. In particular, and most relevant to Herodotus' theory, the present indicative co-occurs with extending clausal and rhetorical complexes, rather than with temporally

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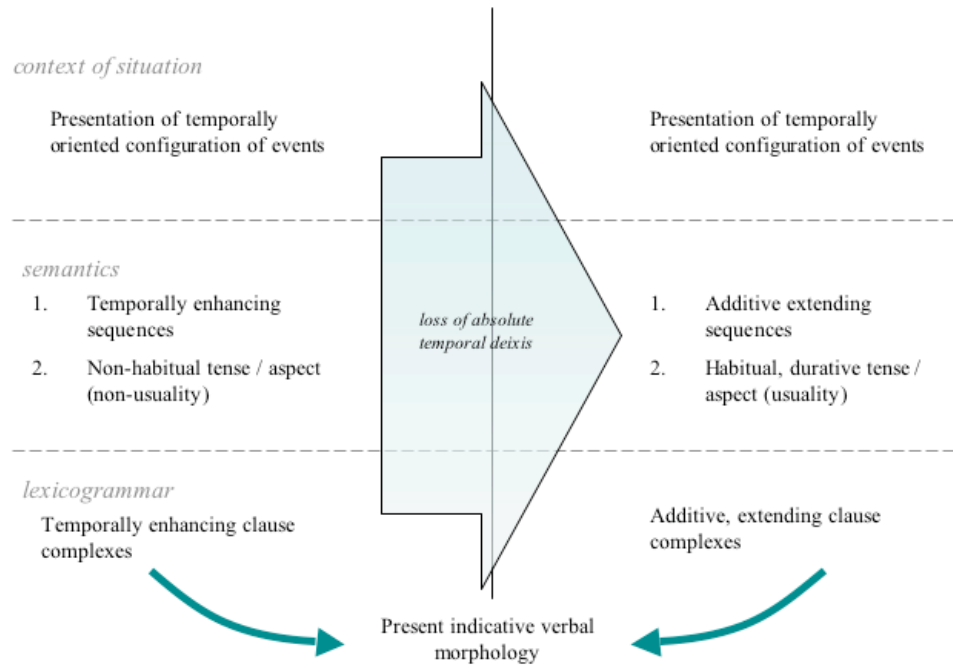
<sup>389</sup> Comrie (1985) p.37-41 comments that many languages, such as English, employ the present tense to denote regular habitual action, and this notion of habitual action lies at the boundary between the notions of tense, aspect and mood (the last of these denote the degree of realis or irrealis of the event). See also Comrie (1981) p.72 for this use of the present tense form of verbs, which appears to be widespread amongst IE and non-IE languages and *ibid.*, p.66-82 more generally for the way in which particular tense and aspect selections tend to be concurrently mapped onto the same kind of morphemes, and that these choices regularly correlate with each other. For the situation in Greek specifically, see Smyth and Messing (1974) p.414, 421.

enhancing relations. This can be seen with Herodotus' description of the behaviour of the crocodile:

Herodotus 2.68 tiktei men gar ôia en gêi || kai eklepei || kai to pollon tês hêmerês  
diatribei en tôi xerôi

It lays eggs on land || and hatches them there, || and spends most of the daytime on dry land

Present indicative verbal forms are used in this complex. In addition, the clause complexing is extending rather than enhancing; it may be possible to see a temporal sequence between the hatching and laying of eggs, but this is backgrounded, and considerably more emphasis is laid upon each clause adding more units of construed experience to build up an overall picture of the crocodile. This in turn relates to the overall Field of the text about the crocodile: to provide a description of the nature (both physical and behavioural characteristics) of the crocodile. Thus the present indicative morphology of verbs is selected in those kinds of texts which have a Field that relates to the incremental provision of information and knowledge about a particular domain.



**Figure 14-4 Shifts in context of situation and semantics with loss of absolute temporal deixis**

### 14.2.5 Implications for extensibility of the theory

This state of affairs applies to Herodotus' theory on the nature of the Nile. Again, present indicative forms are used to construe events of a regular, habitual occurrence. The trade-off for this is a relative lack of absolute temporal deixis— that is, the events are not construed to take place at a given single time relative to the time of the text's production and reception. As a result, the events that are construed are not bound to a particular 'timeline' with finite ends, as is the case with narrative. As a result, there is less constraint on the way in which the text can unfold, because there is no absolute requirement for, or priority to, absolute temporal deixis. As a result, the theory can be extended in a relatively 'free' manner; that is, it can be extended with primary



reference to the overall Field and Mode of the text, to create and transmit information to an audience.

Thus the particular selections of tense and aspect mapped onto the present indicative are a major factor in allowing an explanation of a phenomenon to be built up to whatever degree of detail the author thinks is appropriate for the audience to know, relatively independently of the time of actual production or reception of the text. Absolute temporal deixis is traded off for an increased potential to create explicit knowledge about a particular domain of experience, which can be thought to 'exist' independently of a single text, because the events in the text are not tied to its production or reception. In this new activity of theorisation, the relative temporal deixis in an explanation is important, and not how the timing of the events relates to the moment of production or reception of the text. This results in a shift in the semantic progression of the text from enhancement to extension, which in turn realises, and co-depends on, a Field of directly creating knowledge rather than the 'simple' recounting or reporting of events.

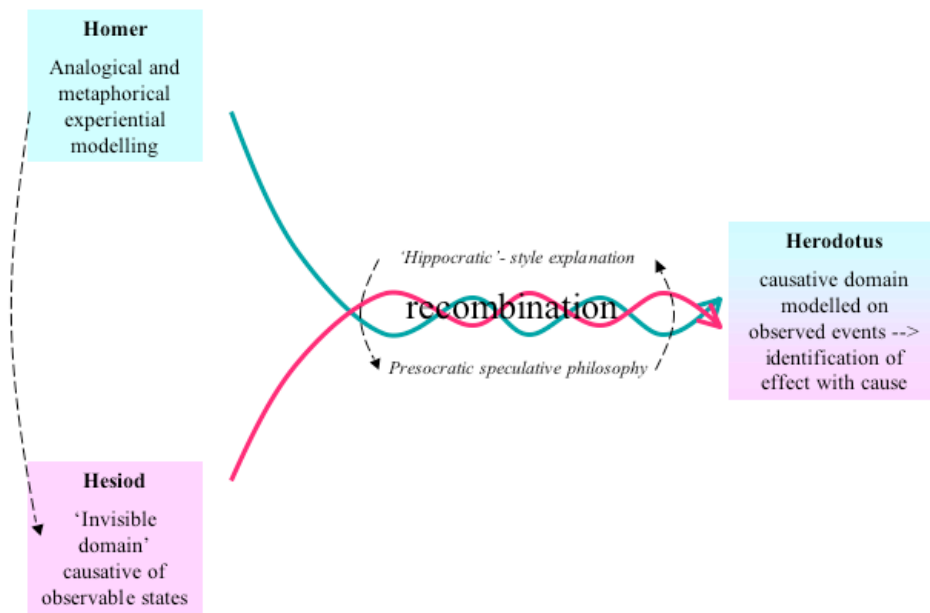
#### **14.2.6 Absolute temporal deixis in Hesiod and the 'closed' nature of the story of Pandora**

This is one of the crucial differences between the explanatory accounts of Hesiod and Herodotus. Hesiod's account of the events of the divine sphere leading to the gifting of Pandora displays clear absolute temporal deixis, because it is construed as a series or collection of definite, singly occurring events which are clearly temporally prior to the appearance of Pandora. This circumscribes the explanatory account that can be developed, because the focus of semantic development of the text is via the temporal arrangement of events which is expected to have an endpoint. Therefore, even though Hesiod clearly provides an explanation of the observable state of humans, that explanation has little scope to be extended as a body of theoretical knowledge that can 'stand outside' of the actual telling of those events. This is because the narrative-like structure of the account, with its temporally finite boundaries, is essentially a

semiotically construed realm that is 'closed' to further development by either the author or the audience of the text. This feature acts in concert with the relative lack of internally oriented rhetorical relations in the narrative that are oriented towards Hesiod's audience, resulting in a model of experience that cannot strictly be called a conscious 'theory'.

### **14.3 The development of theory from a recombination of pre-existing cultural and linguistic resources**

As we have seen, much of the semantic and lexicogrammatical resources for the conscious construction of a theory have been developed in epic poetry well before Herodotus wrote. Homer demonstrates an ability to provide non-divine accounts of phenomena that are analogous to the phenomenon being described, whose semantic relational organisation is oriented directly to the audience of the poem, and which have the potential to lack absolute deixis. However, the Field and Mode associated with epic poetry hinders such accounts from being extended in such a way as to produce an extended model of reality. Although Hesiod uses the actions of the gods as the basis for explanation of the human level of experience, and in this sense analogous to Herodotus' 'invisible' domain, again considerations of Field and Mode prevent an extended model of reality being produced, because the use of absolute temporal deixis is obligatory for the activity of narrative in which he engages. What Herodotus has done in his theory of the Nile flooding is to combine the lexicogrammatical resources used in Homer for comparison and reflection through simile and metaphor, with the kind of generic staging found in Hesiod that organises one group of construals (what is 'invisible') as being consequent to another group of construing the already directly observable.



**Figure 14-5 Herodotus' theory as a 'recombination' of Homer and Hesiod**

The result of this is a theoretical model that is both thought to be 'equivalent' to the phenomenon that is the focus of the theory, but also construes a set of phenomena in the theory thought to be 'continuously' in operation, to which the observed phenomena are habitually consequent. This becomes associated with a new Field and Mode associated with the semiotic activity of theorisation.

## **14.4 Semogenesis in a co-modelled semantic environment: the development of 'enduring knowledge' in Herodotus' theory**

We can conclude that by the time Herodotus wrote his history, there had been developed substantial resources in ancient Greek to engage in the semiotic activity of theorisation. We can suppose that this development of linguistic resources started with early Greek literature. We can also say that much of these resources were developed in this early period, but some of these resources, although oriented to conscious reflection on experience, were not combined or configured in a way to result in an activity that we as modern readers might recognise as an explicit 'theory'. However, the major achievement that Herodotus has made in his account of the Nile— and by extension that made by Ionian prose and speculative literature, and subsequent prose such as that of Thucydides— is to combine three sets of linguistic resources whose use had been relatively independent of each other till this time.

### **14.4.1 Lexicogrammatical modelling in a persuasive and construing semantic environment**

The first of these, taken from the linguistic resources that Homer made use of, is that of making explicit comparison between two (or more) relatively discrete observable phenomena at the experiential level, and to subsequently see one of these in terms of the other. Furthermore, there was also the resources to compare two ongoing states of affairs in the same way, and to situate this comparison within a rhetorical structure. This rhetorical structure was simultaneously oriented to developing an overall construal of certain parts of the experienced world, and to developing an argument to an audience that was intended to provoke at least some kind of reaction to the construal in semiotic terms— that is, to also consciously reflect on the same kinds of experience. Herodotus draws on the same kind of resources, by also using the same kind of dually oriented rhetorical structure, and by implicitly using the lexicogrammar

of visible events as a means of construing the relatively 'invisible'– that is, seeing one phenomenon in terms of another.

A parallel set of resources in Greek, used by Hesiod, is used to construe a causative or explanatory account of a given observable state of affairs. He construes events in a given, relatively 'invisible', domain in a narrative sequence, which then lead causally and temporally to past, potentially observable events, and then to the ongoing state of affairs that is the directly observable human condition. Herodotus also makes use of this kind of the construal of temporal and causal links between two states of affairs that are construed to be separate through the generic staging of the text. Thus the events that take place in the relatively 'invisible' events to do with the sun and its effect on water and rainfall distribution lead consequently to the observed features to do with the Nile's level. Indeed, the tendency of Presocratic thought as a whole to model the invisible in terms of the visible can be traced back to Hesiod's time, and epic poetry in general at least.

However, what Herodotus does in his account is to combine these two sets of linguistic resources. He has done so in a context of situation that was still oriented to performance, but it was a kind of performance that was aimed at engaging the audience to view his discourse as consciously constructed knowledge, and to react in some way to that knowledge. To do this, he engages in a strategy to unfold a explanation of the visible in terms of the invisible, but this invisible realm is modelled by the lexicogrammar that is typically deployed to construe spatial movement that is unconnected with human action, and therefore potentially observable. In addition, the rhetorical relations in major junctures of the text are oriented to both building this invisible realm and to promulgating an argument to his audience in terms of claim, evidence and justification. Further evidence of this can be seen in the way that Herodotus encapsulates his theory in terms of agency– which is specifically oriented towards attempting to engage his audience to react semiotically to his theory.

### **14.4.2 Generalisability and time-independence**

In addition, Herodotus makes his theory generalisable. He does this either explicitly by analogising to other, relatively unconnected observable phenomena such as the level of the Danube, or implicitly with the lack of absolute deixis, which frees the theory from being tied to any one particular location or time. The lack of absolute deixis is achieved by two kinds of linguistic resources. The first is the use of the present indicative, which can have the function of construing ongoing or habitual action, operating within the larger semantic environment of *habitude*-like stages in the text. The second is the concurrent use of internally oriented rhetorical relations. These relations, such as those of evidence and justification, shift the time orientation of the text from the time of text production and reception in relation to the timing of the events that the text construes, towards the semiotic interaction between Herodotus and his audience. Thus these rhetorical relations have a role in the lack of absolute deixis, and thus the generalisability of the theory. Furthermore, the theory is 'time-independent' as a result, and thus achieves the status of 'enduring knowledge'.

Thus Herodotus combines previously relatively discrete linguistic resources in the construction of this theory. The nature of intellectual and creative life in Ionian Greece at this time seems to have made this kind of combination more likely. As mentioned earlier in this discussion, there was a considerable variety of literary activity that predated and was current with Herodotus' own, each of which had relatively specialised Field and Mode, and we would reasonably expect Herodotus to have absorbed this. He would also have been aware of the kinds of argumentative strategies which had success or otherwise with their audiences, and they were used to establish particular points of view on a given state of affairs. Thus we can view the combining of linguistic resources and their deployment in a theorising genre as being reflective of a more general synthesising and recombination of linguistic activities at the time. The results of such recombination opened up new semiotic possibilities which did not reside with the uncombined resources that 'sat side by side' with each other prior to that time.

## **14.5 The linguistic requirements for the development of theorisation**

By tying three strands of linguistic resources together, Herodotus offers to his audience what might be regarded as a reasonably well developed theory, and that by his time a genre of theorisation had become established in Greek linguistic practice. The above discussion shows what kind of linguistic resources in Greek are required for theorisation. Firstly, there must be a means in the semantic and lexicogrammatical resources for simultaneously deploying internally and externally oriented linguistic activities, to the point where they are co-modelled– so that for instance, the semantic relations of evidence and cause are modelled in terms of each other, or the co-modelling of cause and time in the clause complexing relations of the text. Secondly, the text should construe a relatively invisible causative and agentive realm by using the previously established lexicogrammatical resources used to represent already observable phenomena. Thirdly, there should be some means to construe relatively large sections of text– such as a generic stage– as an experiential object, to enable causation and sequence to be construed between the theoretical model and the observed phenomenon. Fourthly, the theory must construe events, and construct the overall text, in such a way as to enable a semiotic reaction to the theory either by the author or the audience– to accept, challenge, modify or reject the theory presented. Thus the genre of theorisation becomes a means by which experience becomes socialised, and, in being socialised, transforms into knowledge that can be thought to exist outside of any one instance of composing or performing the text.

### **14.5.1 The consequences: semiotically structured perceptual and cognitive practice**

These are the broad groups of resources required to produce a theory in ancient Greek in Herodotus' time. However, it also has important consequences for how the observed world is construed and represented to others. The structure of the overall experiential picture that the theory presents resembles that of the organisation of text,

where the various details are thought to be anchored to, and seen in relation to, various 'stable points'. What counts as a 'stable point' at the level of a generic stage appears to correlate with what is usual and familiar, and it is from these points that the 'new' and 'unknown' are developed. At the level of the clause complex, stable points tend to be construed through relational processes that are hypotactically dependent on main clauses with non-relational process that construe the 'unusual' features of the theoretical picture. In short, the overall model presented is text-like in its configuration; it resembles both the relationship of Theme to Rheme, and Given to New. This contributes to the impression of a blurring between experiential construal and argument.

This in turn leads to the use of an argumentative strategy as a legitimate semiotic tool for the exploration of various experienced phenomena. Any phenomena which are not experienced are, in this way, given the potential to be experienced. This is in keeping with the observation about Presocratic thought as a whole, particularly, as mentioned earlier in the discussion of the intellectual background to Herodotus, Parmenides' assertion that thought was equivalent to reality. This also accords well with what is observed of the texts of the Hippocratic corpus, where, in the presentation of theories such as that of epilepsy in *On The Sacred Disease*, there is rather much of an emphasis on the argument presented— often quite polemical in tone— rather than on systematic experimentation and checking of observations and possible evidence of entities proposed by a theory<sup>390</sup>. Priority seems to be given over to argument rather than to systematic observation in order to establish 'facts'. Given the discussion above, this seems to be because the linguistic choices are such that simultaneous argumentative and construing strategies become legitimate enough tools of enquiry in themselves. Knowledge is established primarily by argument and reasoning that embodies, and is embodied by, the linguistic systems that are deployed to construe a reasoning chain. This appears to be done rather than explicitly construing sets of observational data to support a hypothesis. However what Herodotus does in this theory is in line with other kinds of linguistic activity, such as

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<sup>390</sup> For a fuller discussion on the place of experiment and controlled and uncontrolled observation in Greek medicine and science, see Lloyd (1999) p.126-225.



oratory and other performance genres, which are intended to promote a certain course of action or response to the events construed in the text. Therefore, for Herodotus, the use of the linguistic resources of Greek in the way explained in this discussion constitutes his activity of *historiê*– that of conducting an enquiry and reflective exploration to result in the production of knowledge that has a great potential to be the site and departure point for further kinds of linguistic and cognitive semiosis.

## **14.6 Not just a simple description, but a theorised description: Thucydides' account of the plague of Athens**

By the time Herodotus wrote, the practice of theory making– that is, the semiotic activity of constructing an abstracted, explanatory model of some part of the experienced world– had already become established in ancient Greek literature. This is a very important point to make, as it is often implied that Thucydides, in his description of the plague, has made a radical break with what has gone before into a new 'era' of scientific description and practice, comparable and compatible with modern day practice. Given Herodotus' achievement with his theory of the Nile, this is not as big a step as might be thought. By the time Herodotus wrote, the use of linguistic resources in ancient Greek had been combined in such a way to allow theorisation to happen.

Thucydides draws on this for his description of the plague to a large extent. In particular, the simultaneous deployment of the functions of description / narrative and argument, and the structuring of a model of experience that resembles the information structure of text, are features of Thucydides' account as well that allow him to construct a theoretically informed picture of the disease. However, he does further extend the resources for theorisation in this account to the point where it can be covertly integrated with narration and description, and so to 'theorise' experience. Furthermore, his account shows how the semiotic activity of theorisation is progressively being integrated into cultural practice in classical period Athens, and is

also an indication of the interaction of different genre types in the classical period in order to support such theorisation.

### **14.6.1 The 'grammaticalisation' of theorisation**

Part of the reason why the account of the plague is a theoretical description while appearing not to be so is that the linguistic resources for theorisation become 'grammaticalised'— that is, the functions carried by the 'higher' linguistic levels or over larger linguistic units are now construed through entities that operate at linguistic units of lower rank or level. The best example of this appears to be the construal of causation. In Herodotus' theory, the process of logogenetic grammatical metaphor occurs over several clauses— in fact, a good deal of the Extension stage of the account— in order for definitive causation to be construed in the Agentification stage. In Thucydides' account, causation is often construed in the functional relations between Process and Circumstance, where the latter is not necessarily restricted to the role of Circumstance: cause, and in clause complexing relations. This is not to say that Thucydides was the first to use Circumstance: cause, or clause complexing relations of cause— this certainly is not the case. However, these lexicogrammatical resources are being used in Thucydides for the same reasons as Herodotus uses— to map what is observed onto a theorised model.

However, the 'grammaticalisation' does have an important consequence for the status of theory building with respect to observation and description. It becomes more difficult to separate the theory from the description, in contrast to Herodotus' relatively clear separation between an observed phenomenon (the seasonal variation of the level of the Nile) and an explanatory theory. Instead, the terms of the theory of disease are integrated into observation to the point where the abstract terms of the theory take on the status of being theoretically postulated, but presumably 'yet to be observed' features of the disease such as *helkôsis* '(internal) ulceration'. Thus Thucydides' description does not merely describe; through the covert integration with a theory of disease, it also postulates or 'predicts' aspects of the disease which are thought to be 'as-yet-unseen'.

One of the consequences of this 'grammaticalisation' is that the account is no longer 'self-contained', but depends on previously constructed texts, and therefore draws on a surrounding cultural practice of theorisation to a greater extent than is the case with Herodotus' account. A case in point is the extensive use of nominalisation in the account, which is heavily involved in the mapping of 'unperceived' or 'unperceivable' internal bodily processes to observable clinical symptoms. These nominalisations are not developed logogenetically, but instead are presumed to develop phylogenetically and refer exophorically to other texts which develop or contain such nominalisations. For this reason, Thucydides' description is one that is construed not only in relation to a covert theory in the text, but also to theories developed in other texts, and therefore to a 'culture of theorisation' that extends across not only biological, but also physical, social and psychological aspects of human experience, and informs their description.

#### **14.6.2 Cultural life in the text: dynamically evolving discourse functions**

One of the striking things about Thucydides' text is that the functions of the generic stages do not operate independently of each other. Instead, the functions of each build on the semantic environment that has been created by the previous stages. An example of this is how the semantic environment of the Motivation and Differentiation stages primes subsequent stages for the construal of large-scale psychological and social change. Such an evolution of functions also happens within a given generic stage. For instance, in the Natural History stage, the occurrence of taxonomy- or meronomy-like stages, and the interruption of the 'argument-like' Motivation stage, allows the narrative thread to diverge into two parallel streams in the generic substaging, both of which constitute the disease progression, and into two alternative Finales representing the possible outcomes of the disease. Thus the semantic environments created by the generic stages of the account inform each other.

This evolution of functions can also come about because the generic stages are relatively 'underspecifying'. The most prominent example of this is the Natural History stage of the account. Although of a narrative type, the stage, and its constituent stages, do not put constraints on deixis or on the number of concurrent temporal sequences that can occur, or even whether other generic stages can interrupt. This underspecification by generic stages opens up the potential for the modification of their text functions. Such 'modified' stages can also further underspecify, and so the underspecification and the dynamic reconfiguration of generic stage function may co-evolve.

This dynamic reconfiguration of text functions may be very well a reflection of what is going on in the literary culture of ancient Greece. In classical period Athens, there was an increasing and increased variety of literary genres, and each of these was evolving in their literary and cultural functions. The evolution of the genre of Athenian tragedy is a case in point. Because it developed in the environment of other genres that examined the position of humans with respect to the physical and social environment– such as the Hippocratic medical texts and oratory– tragedy also evolved from being part of the performance of a religious festival to also examining individuals, individuals in society and in a physical and moral universe. Thucydides' account is a microcosm of such a process. At the same time, it is a successful scientific account on its own terms, and so this appears to suggest that the maintenance of a cultural activity that may be called 'scientific' also depends on a surrounding culture which allows text types to influence each other, and on a social structure that allows this to happen.

### **14.6.3 Different kinds and levels of knowledge**

An important feature of note in the description of the plague and its effects is the construction of different 'knowledges' which differ from each other with respect to 'disciplinary boundaries' and with respect to subjectivity. Both of these are constructed through the linguistic resources deployed through text, and do not depend on *a priori* 'extralinguistic' distinctions. The disciplinary boundary between scientific

and historical knowledge (which may be characterised as the product of conscious reflection upon physical and psychological / social events respectively) is made through the different patterning of rhetorical relations for each. It is interesting to note that observations about the physical world that are theorised begin to take on some of the relational semantic characteristics of talking about psychological and social phenomena. This lends impetus to the notion that theorisation is a way of constructing the experienced world with respect to social and semiotic cultural practice– 'representing' the world as a configuration of meaningful behaviour.

Types of knowledge are also distinguished from each other with respect to subjectivity. This subjectivity is constructed through the lexicogrammar of mental and verbal processes, and in particular the specification of main participants in such processes. This subjectivity has a role in determining which 'pieces' of knowledge are worth further investigation and engagement, and which are not, and the less specific Sensors or Sayers are, the more 'objective' that knowledge becomes. This covert construal of subjectivity presages the more explicit engagement with the distinction between 'truth' and 'mere opinion' that was to occupy later writers to a greater extent, such as Plato. Once again, a philosophical issue begins to be construed through the 'social-semiotic' activity of language. It requires a sufficiently detailed and properly oriented framework of linguistic analysis, such as that of SFL, to demonstrate this is so.

## **14.7 The role of linguistic analysis in the evaluation of ancient Greek texts**

The essential feature of the discussion of the ancient Greek texts in this thesis, and the ensuing evaluation of the culture that produced them, is that it has been largely dependent on a linguistic analysis. Furthermore, it has been based on a linguistic framework that foregrounds the analysis of meanings made in a text, and has looked for consistent patterns of meaning that span large sections of the texts under

consideration. With respect to the analysis of meaning, lexicogrammatical analysis is considered a very important part of this meaning analysis.

This is a different approach to most literary or philosophical approaches to ancient world texts, where discussion of an individual text focuses on 'key' words or phrases that are intended to be pointers to the literary function of the text, the intentions of the author, the text's possible reception and other issues that might be under discussion. Such 'key' elements of the language are also the basis for comparison between texts and text types. More recently in the field of ancient Greek literary and historiographical study, there has been an increased focus on describing certain patterns of textual organisation; an example of this is Thomas' discussion of argumentative strategies in Herodotus<sup>391</sup>. However, even here, any appreciation that these semantic strategies are constructed by the grammar of ancient Greek, or that these are even semantic strategies which are part of the overall semantic systems of the language, are at best backgrounded, and possibly ignored. Furthermore– and in consequence of the previous point– there is the possibility that other semantic patterns in the rest of the text may be ignored, but may be no less important to the function of the text than the ones highlighted. Considering the issue more widely, there is a less precise idea of where a particular cultural activity– such as theorisation– stands in relation to other forms of cultural practice.

Bringing the SFL framework to a linguistic analysis of ancient Greek text has brought substantial benefits to evaluating the texts, and to proposing a trajectory of cultural change and development that gave rise to theorising texts– an important part of understanding the ancient world, and therefore the origins of Western 'rational thinking'. The advantages of this linguistically-based approach are as follows. Firstly, because of the theory's emphasis on stratification, there is a clear sense of what linguistic patterns or features are occurring at what levels of the text, so that there is a clearer picture of an ensemble of linguistic choices working together to produce a theorising text. Secondly, because of the concept of metafunctions, there is a clearer conception of what kinds of meanings are involved in producing such texts.

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<sup>391</sup> Thomas (2000).

Furthermore, it emphasises the fact that there is more to theorisation than a particular way of talking about the world— it also involves a particular way of interacting with the audience of a text, thus foregrounding the notion that theorisation is a set of meaning patterns created in a speech community; in other words, it shows that it is a particular kind of 'social semiotic'<sup>392</sup>. Thirdly, because of the concept of system and instantiation, there is also a clearer appreciation of how a particular text stands with respect to patterns of cultural practice, and the role that such texts have in constructing that culture, and causing that particular form of culture to propagate or persist.

### **14.7.1 The need for a systemic-functional lexicogrammar of ancient Greek**

This thesis also highlights the importance of the lexicogrammatical systems of ancient Greek in meaning-making in a theorising or consciously reflective text, and that these patterns of grammar are crucial to the function of such texts. It is also most likely that the grammar of ancient Greek has an equally important role in fulfilling the functions of other kinds of texts.

The role of the language's grammar is often ignored or 'taken for granted' in many studies of ancient Greek texts, with two consequences. The first is that particular features of texts discussed— such as Thomas' discussion of Herodotus' use of *modens tollens* arguments— are left half-unexplained, or are not related well enough to the language systems that construct such arguments, such as the system of conditional and comparative clause complexing. Secondly, there is also underappreciation of how 'latent patterns' of meaning making occur throughout a text to construct that text's meanings and functions. This is particularly the case with the issue of the construction of agency, which in turn is important for the discussion of explanatory texts.

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<sup>392</sup> This is the term coined for language by Halliday and Hasan (1989).

A major reason for this has been the lack of a description of the lexis and grammar of ancient Greek that is sufficiently oriented to meaning. As discussed in Chapter 3, the existing 'traditional grammars' do not provide this in a systematic way. Furthermore, in such grammars, there is not enough of a distinction of types of 'grammatical meaning' or grammatical function, analogous to the metafunctional divisions in SFL, to allow one to know what kind of lexicogrammatical analysis is suitable for what kind of investigation of a text. A preliminary working SFL description of ancient Greek has been attempted in this thesis, and the insights it has provided have been valuable. However, in the future there needs to be a fully-fledged SFL grammar of the language in order to have analytical tools of sufficient scope and detail in order to allow interpretation of not only theorising texts but also other kinds of text whose semiosis can be thought of as relatively complex, in order to obtain a fuller appreciation of ancient world cultural practices. It also puts the interpretation of individual texts on a more secure footing, because it forces one to make an argument based on linguistic evidence and features that construct the meanings of the text. The use of the system network for the formulation of such a grammar would also be useful, because it gives further insight into the manner in which authors of ancient Greek texts used the resources of the language to construct their texts.

Such a systemic grammar of ancient Greek would facilitate typological comparisons of agnate linguistic resources in other IE and non-IE languages. Such comparison may shed some light on the different or similar ways in which texts in different languages construct 'rational' activity and thought. It may also provide some insight into how such activity became developed in (or 'transplanted into') other IE languages in later history during the mediaeval and Renaissance periods which eventually gave rise to modern-day writing and thinking. Typological comparisons also provide insight into the nature of linguistic and semiotic systems in general, by highlighting points of similarity and difference between languages. A systemic grammar of ancient Greek would helpfully contribute to such typological work.



### **14.7.2 Further investigating the development of theorisation and science from a linguistic perspective**

This thesis has only attempted a certain perspective on investigation the development of 'rational' consideration of the experienced world. As mentioned in Chapter 1 of this thesis, this is only a small part of what might be thought of as 'rational' thinking. It follows that there is considerable scope to investigate the issue of 'rationality' in ancient Greek texts, as more kinds of texts, and possibly therefore more kinds of rationality can be analysed and interpreted, such as that associated with the texts of lyric poetry or tragedy<sup>393</sup>. In particular, the issue would be considered from a social and linguistic perspective, and so one might be able to see how a particular aspect of rationality evolved through meaning-making in language in a material, social and semiotic perspective.

As far as theorisation in science is concerned, more kinds of text need to be investigated in order to develop a more complete picture of the evolution of this kind of activity. In the case of ancient Greek, the analysis of the Presocratic philosophers, such as Heraclitus, Empedocles and Parmenides, would be an important part of investigating the development of science, as they predate Herodotus and Thucydides and more explicitly concern themselves with the experienced physical world. This has already been a subject of investigation<sup>394</sup>, but more work needs to be done on the patterns of linguistic usage that construct their views. The analysis of the Presocratics is of value not only for the development of Greek science, but the Western natural sciences generally, as they explicitly concern themselves with the roles of human reasoning about the surrounding universe, and the role of the senses in gaining knowledge about the world. In the classical period of Greek, the consideration of Plato and Aristotle are essential since they had a crucial influence on the ideas about what theories could be applied to, what kinds of questions they could answer and how

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<sup>393</sup> These kinds of texts are discussed in these terms by Snell (1953).

<sup>394</sup> For example, see Kahn (2003) for an example of examining the evolution of the writing of Presocratic philosophy and their contemporaneous audience's reaction to their writing.

they should be constructed. After the classical period, and in *koinê* Greek, the medical texts of Galen also would provide a valuable insight into the further development of the theorisation of the unseen, which might also reflect the lasting influence of Plato and Aristotle on the activity of theorisation in science. This is not to mention the more direct relevance of the study of Galen to the development of Western medicine.

After the period of ancient Greece and Rome, there have been several figures in the development of the scientific disciplines up until the present day, and the techniques of linguistic analysis developed for a particular writer's language can equally be applied to the analysis of that writer's texts. For instance, the SFL framework applied to Latin would not only have relevance to ancient world studies, but also to mediaeval and Renaissance works written in Latin, such as Isaac Newton's *Principia* (which would provide a useful addition to the work done on *Opticks* by Halliday<sup>395</sup>) and the work of Galileo.

The most useful approach would be to focus on a particular aspect of the scientific tradition (such as the use of observation and experimentation, or inductive thinking, considered a 'hallmark' of the scientific process<sup>396</sup>) and examine the evolution of the linguistic construal of these across several authors in a diachronic fashion, with the aim of constructing a particular trajectory of development from (perhaps) the time of the Presocratics through to the present day. Such studies would provide a valuable contribution to understanding the nature of science and therefore of a particular mode of human reasoning that plays an important role in the nature of present-day society, and the social and cultural conditions that give rise to and maintain them.

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<sup>395</sup> Halliday (1998).

<sup>396</sup> See Ladyman (2001), especially p.11-61 for a discussion of the nature of inductivism.

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