



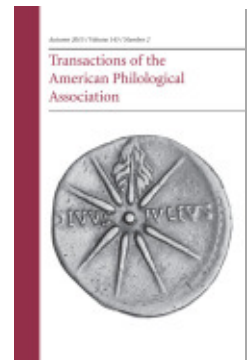
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Wackernagel's Law and the Fall of the Lydian Empire*

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SUMMARY: This paper offers a novel reading of the Delphic oracle's response to Croesus's question of whether he should attack Persia (Herodotus 1), by focusing on a previously unacknowledged feature of the oracular answer: the preposing of the adjective *μεγάλην*. Preposing is a construction in which an element occurs before the start of the clause proper. In the oracle's response, preposing serves a corrective function. As preposing creates surface exceptions to Wackernagel's Law, it is only through an accurate understanding of the "Law" that we can even detect this construction. Working within a framework of (neo-) Gricean pragmatic theory, I detail the semantic and pragmatic contribution of preposing in the oracular response. More broadly speaking, I suggest that Gricean pragmatics can provide new insights into classical texts by offering a principled method for decoding implicit meaning.

1. INTRODUCTION

IN BOOK ONE OF THE *HISTORIES* (1.26.1–91.6), HERODOTUS RECOUNTS THE RISE and fall of the Lydian empire.¹ A decisive point in the narrative comes when Croesus's messengers return with the Delphic oracle's answer to his question of whether he should attack Persia:

* I am grateful to Yelena Baraz, Athena Kirk, and two anonymous readers for comments on an earlier draft of this paper.

¹ For analyses of the Croesus/Lydian *logos* broadly, see, e.g., Hellmann 1934; Defradas 1954: 208–28; Klees 1965: 62–98; Immerwahr 1966: 81–89; Heuss 1973; Sebeok and Brady 1979; Romm 1998: 64; Maurizio 1997; Kurke 1999: 130–71; West 2002; Kindt 2006; Pelling 2006.

(1) οἱ μὲν ταῦτα ἐπειρώτων, τῶν δὲ μαντηῶν ἀμφοτέρων ἐς τὸ αὐτὸ αἰ γνῶμαι συνέδραμον, προλέγουσαι Κροίσῳ, ἣν στρατεύηται ἐπὶ Πέρσας, μεγάλην ἀρχὴν μιν καταλύσειν. τοὺς δὲ Ἑλλήνων δυνατωτάτους συνεβούλευόν οἱ ἐξευρόντα φίλους προσθέσθαι. (Hdt. 1.53.3)

These (are the questions) they asked, and the pronouncements of both oracles were the same, prophesying to Croesus that if he were to send an army against the Persians, it a great empire that he would destroy. And they advised him to find the most powerful Greeks and make them allies.

The stakes are high at this point in the narrative, as it is Croesus's misinterpretation of the oracular response that brings down the Lydian empire. While considerable attention has been devoted to the Croesus logos and the king's decision, a crucial detail of the oracle as reported by Herodotus has gone unacknowledged: in the apodosis of the conditional, *μεγάλην ἀρχὴν μιν καταλύσειν*, the clitic pronoun *μιν* does not occur in its expected second position (which would be directly after *μεγάλην*). This expectation has been codified as Wackernagel's Law (Wackernagel 1892), which in its basic form predicts that certain enclitics and postpositives will occur after the first word of their clause (or other relevant domain, as explained below in section two). The adjective *μεγάλην* is positioned in an area of the sentence that precedes the nuclear clause—and thus, as it were, does not “count” in the calculation of second position. It is this phenomenon that I refer to below as preposing. Preposing here has two pragmatic consequences. First, it signals a corrective focus to give the clause a meaning along the lines of “you will destroy not just an empire, but a great empire.” Second, this corrective focus licenses an implicature “you will destroy more than you realize.” Working within the framework of Gricean pragmatics, I offer an account of the effect of these implicatures within the Croesus logos.

This paper is organized as follows. Section two offers an introduction to Wackernagel's Law and the preposing construction. Here I sketch the effect that preposing can have on both words and clauses. This is followed in section three by a presentation of implicatures and H. Paul Grice's conversational maxims. I claim that oracle language as a genre violates the Maxim of Manner (specifically, the sub-maxim “Avoid Ambiguity”). Section four brings the preceding two strands together to demonstrate the effect preposed *μεγάλην* has on the meaning of the Pythian response. I conclude in section five with a summary and outlook for future research.

2. WACKERNAGEL'S LAW

Even though Greek word order is often said to be “free,” a small class of words (comprised of certain enclitics and postpositives) exhibit a strong tendency to occur second in their clause²:

(2) Κροῖσος=δέ=μιν ἐκάθηρε. (Hdt. 1.35.1)

Croesus purified him.

This is canonical second-position behavior, as the particle δέ and the pronoun μιν occur after Κροῖσος, the first word of the sentence. The word that clitics “lean on” prosodically is known as a host: in (2) Κροῖσος hosts both δέ and μιν. This tight prosodic association is signaled with the sign “=” It is not the case that a second-position enclitic (or postpositive) has to be the second lexical word in the sentence:

(3) ἐκ τουτέων=δή=μιν τὸ χαλκῆιον ποιῆσαι τοῦτο καὶ ἀναθεῖναι ἐς τὸν Ἐξαμπαῖον τοῦτον. (Hdt. 4.81.6)

From these (arrowheads) he [the Scythian king Ariantas] made this bronze vessel and dedicated it in this (region) Exampaeius.

Here ἐκ τουτέων coheres so tightly together (in fact, ἐκ is proclitic) that together they constitute a single prosodic word—that is, from a phonological point of view, they constitute a single domain, even though they are separate lexical items. Thus, to be more precise, second-position enclitics in Greek standardly fall after the first prosodic word of their clause (provided that their domain is the clause).

A notorious feature of clitics generally is their promiscuous attachment (Spencer and Luís 2012: 37). By and large they select their host without regard to whether it is a noun, verb, adjective, etc. Another remarkable feature, in addition to this promiscuity, is their ability to come in between syntactic units (i.e., constituents).

I would like to call special attention to patterns where a second-position enclitic intervenes between adjective and noun:

²For Wackernagel's Law in Greek, see Taylor 1990 and 1996, as well as Goldstein 2010 and forthcoming. For the phenomenon in Sanskrit, which bears important similarities to the Greek data, see Hale 1987a, 1987b, 1996, and 2007; Lowe 2011; and Keydana 2011. In Latin, see Adams 1994a and 1994b. Krisch 1990 and Agbayani and Golston 2010 discuss second-position clitics in archaic Indo-European more generally.

(4) ὁ δὲ οἱ ἠπειλήσε, ἦν σῶς ἀπονοστήσει, πολλόν=μιν χρόνον παρθενεύσεσθαι. (Hdt. 3.124.2)

And he [Polycrates] threatened her [his daughter] that if he returned home safely, she would for a long time remain a virgin.

In the oracular response given to Croesus as reported by Herodotus, the enclitic does not intervene between adjective and noun.

While most of the literature on Greek (tacitly) assumes Wackernagel's Law to be a monolithic mechanism for putting clitics in their place, there are in fact several kinds of "second" positions. The clitic lexicon of Greek is large, and some clitics appear second in a larger domain (such as a sentence), while others occur in a smaller domain (such as a prepositional phrase):

(5) [ἄνευ=γὰρ=δὴ μάγου] [οὐ̄=σφι νόμος ἐστὶ θυσίας ποιέεσθαι]. (Hdt. 1.132.3)

For, without a magus, it is not lawful for them to perform sacrifices.

Here γὰρ falls second within the sentence as a whole, while σφι occurs second within a domain that below I will refer to as the nuclear clause. By contrast, the enclitic γε occurs second within a very different domain:

(6) τιμῶσι δὲ ἐκ πάντων τοὺς ἄγχιστα ἐωυτῶν οἰκέοντας μετά=γε ἐωυτούς, δεύτερα δὲ τοὺς δευτέρους, μετὰ δὲ κατὰ λόγον προβαίνοντες τιμῶσι. (Hdt. 1.134.2)

They honor the most (after themselves at any rate) those who live nearest them, next those who are second (closest), and so going ever onwards they assign honor by this rule.

Unlike the second-position items considered above, γε in this example occurs far off from the beginning of the sentence, but does occur second in the domain to which it contributes its meaning (whatever exactly that is), namely the prepositional phrase μετὰ ἐωυτούς.

No attempt has been made to work out the distributional patterns of the entire clitic lexicon of Greek. To simplify matters, I will restrict my remarks in this paper to clitics that occur second in the domain of the clause, which includes pronominal objects like μιν.

2.1. *Preposing*

Despite the robust tendency of clitics to occur in second position, exceptions to the pattern have long been known (see, e.g., Wackernagel 1892 and Fraenkel 1964[1933]):

(7) ἄνευ=γὰρ=δὴ μάγου οὐ=σφι νόμος ἐστὶ θυσίας ποιέεσθαι. (Hdt. 1.132.3)

For without a magus, it is not lawful for them to perform sacrifices.

While there is disagreement in the literature as to how we end up with cases like these, there is consensus that the clitic or postpositive in these clauses is still in “second” position: the material preceding the host of the second-position item occupies a separate domain, which is ignored in the calculation of second position (this line of reasoning was one of the foundations for Eduard Fraenkel's *Kolon* theory in Fraenkel 1964[1933]; for a recent overview and expansion of Fraenkel's ideas, see Scheppers 2011). Structurally, then, we can think of (7) as follows:

(7.1) [ἄνευ=γὰρ=δὴ μάγου]_{Preposed} [οὐ=σφι νόμος ἐστὶ θυσίας ποιέεσθαι]_{Nuclear}
*Clause**

The belief in a separate domain excluded from the calculation of second position is not simply a legerdemain to preserve Wackernagel's Law, but rather a well-motivated piece of Greek syntax. Elements that are moved into this domain—which I will refer to from here on as preposed phrases—carry meanings that they would not have if they were integrated into the rest of the clause (i.e., if they were to “count” in the calculation of second position).

Preposing is used as an information-packaging device in discourse. Here I follow the general thrust of the literature on information structure and work with two rough categories, presupposed (i.e., given) and non-presupposed (i.e., new) information. The former refers to any information that has been introduced into the discourse or that the speaker assumes on the part of his interlocutor. New information, by contrast, is non-presupposed information, which I refer to as the focus of an utterance.³ The following question-answer pair illustrates this concept (see, further, Roberts 2012):

(8) A: What's Jack doing?
 B: He's [washing the dishes]_{Focus*}

A's question presupposes the referent *Jack* as well as the fact that he is doing something. We can characterize this latter presupposition as an open proposition (which is simply a statement containing a variable) as follows: *Jack x*, where *x* refers to some activity. B's answer fills in this open variable with the predicate *washing the dishes*, which in turn is the focus of the utterance.

³Technically speaking, there is no facile correspondence between new information and focus, but for my purposes here, this simplifying assumption has no negative consequences.

Focus is not a unitary phenomenon, but comes in various types (for an overview, see Gundel 1994 and 1999; Glanzberg 2005; Erteschik-Shir 2007: 27–40; Krifka 2008). I concentrate here on the distinction between focus that introduces new information (as presented above), which often goes by the name of informational focus, and corrective focus, which asserts new information in the face of countervailing assertions or presuppositions (cf. Dik 1995: 39–45 on counter-presuppositional focus; Givón 2001: 221–50 on contrastive focus; and Kiss 1998 on informational vs. identificational focus), as in the following pair (from Gussenhoven 2008: 91):

(9.1) *Informational Focus*

A: What's the capital of Finland?

B: The capital of Finland is [Helsinki]_{Focus}.(9.2) *Corrective Focus*

A: The capital of Finland is Oslo.

B: No. The capital of Finland is [Helsinki]_{Corrective Focus}.

In (9.1) the focus of the utterance, Helsinki, is presented against a neutral, as it were, background. By contrast, in (9.2) the focus contravenes the assertion of A that the capital of Finland is Oslo. These two types of focus have different prosodic contours in English (which I have not reproduced in the examples). Just as English speakers can use pitch to mark this distinction, so other languages can use morphology. Consider the case of Navajo (the data again are from Gussenhoven 2008), which has two forms of the negative, a neutral one (*doo ... da*) and one for corrective focus (*hanii*):

(10.1) Jáan doo chidí yiyííłchø'-da

John NEG car 3rd-past-wreck-NEG

John didn't wreck the car.

(10.2) Jáan hanii chidí yiyííłchø'

John NEG car 3rd-past-wreck

JOHN didn't wreck the car (someone else did).

(10.3) Jáan chidí hanii yiyííłchø'

John car NEG 3rd-past-wreck

John didn't wreck the CAR (he wrecked something else).

What English often does with pitch and Navajo with lexical items, Greek often does with word order, in particular hyperbaton (Devine and Stephens 1999)

and preposing (both of which presumably had special prosodic marking, too, although I leave this issue aside). Preposing is used to mark corrective focus (among other functions that I will not address here; for an attempt at a dossier, see Goldstein 2010: 127–79; for preposing in English, see Birner and Ward 1998). Here I concentrate on a particular use of corrective preposing, namely that which contravenes presuppositions, as illustrated in the following example from the *Oedipus at Colonus*:

- (11) Oedipus δάσων ἰκάνω τοῦμόν ἄθλιον δέμας
 σοὶ δῶρον, οὐ σπουδαῖον εἰς ὄψιν, τὰ δὲ
 κέρδη παρ' αὐτοῦ κρείσσον' ἢ μορφή καλή.
 Theseus ποῖον δὲ κέρδος ἀξιοῖς ἤκειν φέρων;
 Oedipus [χρόνω] μάθοις=ἄν, οὐχὶ τῷ παρόντι που. (OC 576–80)
- Oedipus I have come to offer you my wretched body
 as a gift, not much to the sight, but the
 gains from it are better than a fine form.
- Theseus What sort of gain do you consider you have brought with
 you?
- Oedipus IN TIME you will learn, but not at the present.

Underlying Theseus's question is a desire to have the answer to his question now. The preposing of χρόνω before the host of ἄν, however, counters this presupposition, which is made explicit (and emphatically negated with οὐχί) in the second half of his statement.

A similar example is found in Herodotus's comparison of the Egyptian Labyrinth with the construction projects of the Greek world:

- (12) εἰ γάρ τις τὰ ἐξ Ἑλλήνων τείχεά τε καὶ ἔργων ἀπόδεξιν συλλογίσαιτο,
 [ἐλάσσονος] πόνου=τε=ἄν καὶ δαπάνης φανείη ἔόντα τοῦ λαβυρίνθου
 τούτου. (Hdt. 2.148.2)

For if someone should list the walls (built) by the Greeks and a display of (their) works, it would clearly be of less toil and expense than this labyrinth.

Herodotus claims that if one were to add up the toil and expense of all the Greek buildings and compare the numbers with those required for this one Egyptian building, they would not measure up. This is surprising, because on general grounds of “common sense,” one hardly expects a single building of the Egyptians to outstrip in cost that of the entire Greek world. This surprise is encoded by preposing the adjective ἐλάσσονος (“less”), as a result of which ἄν is not in its typical second position. The adjective is preposed

to reject its antonym *more*, which Herodotus presupposes on the part of his audience. That we find preposing here in Herodotus's description of Egypt is exactly what we expect: for his goal is to impress upon his Greek audience the superior (if not overwhelming) grandeur of Egypt.⁴

The following example follows a similar pattern in that preposing is used to correct a standard assumption about the world:

(13) ὡς δὲ τὸν Γύνδην ποταμὸν ἐτίσατο Κῦρος [ἐς τριηκοσίας καὶ ἐξήκοντα] διώρυχάς=μιν διαλαβὼν, καὶ τὸ δεύτερον ἔαρ ὑπέλαμπε, οὕτω δὴ ἤλαυνε ἐπὶ τὴν Βαβυλῶνα. (Hdt. 1.190.1)

After Cyrus had punished the river Gyndes by dividing it into THREE HUNDRED AND SIXTY CANALS, and the following spring came around, then indeed he marched against Babylon.

The preposing of the phrase ἐς τριηκοσίας καὶ ἐξήκοντα (within the participial phrase) is motivated by the fact that dividing the Gyndes into three-hundred and sixty canals was not only an astounding feat of toil, but also one whose excess presumably bordered on the unthinkable. This background assumption licenses the preposing of the prepositional phrase. In highlighting Cyrus's excess here, Herodotus is further calling attention to his impiety, as dividing up natural formations like rivers is a transgressive act.

Lastly, as a brief aside, I note that preposing is often found in ethnographic descriptions of non-Greek customs, as we see from the following examples (preposed constituents are bracketed):

(14) *Persian sacrificial customs*
[ἄνευ=γὰρ=δὴ μάγου] οὐ=σφι νόμος=ἐστὶ θυσίας ποιέεσθαι. (Hdt. 1.132.3)

For, without a magus, it is not lawful for them to perform sacrifices.

(15) *Mesopotamian Clothing*
[ἄνευ γὰρ ἐπισήμου] οὐ=σφι νόμος ἐστὶ ἔχειν σκῆπτρον. (Hdt. 1.195.2)

For, without an emblem, it is not customary for them to have a staff.

In these examples corrective focus highlights elements of non-Greek culture that differ from Greek custom. We could expand the meaning of preposing to something like (to take (14) as representative) “you would not think this to be the case, but actually in Persia it is not lawful to sacrifice without a magus.”

⁴ For arguments against an analysis that denies the preposing of the adjective, see Goldstein 2010: 79–81.

3. IMPLICATURES

It is impossible for a speaker to encode the full extent of his meaning linguistically. He therefore has to rely on the ability of his listener to draw inferences from the meaning that he actually encodes. In short, we always mean more than we say. The question this raises is: how do we get from encoded meaning to non-encoded meaning? In an attempt to develop a framework for answering this question, Grice 1975 famously introduced the concept of implicature, which (roughly speaking) refers to what an utterance suggests, as opposed to what it directly encodes.⁵ One can characterize implicature roughly as “what is meant” as opposed to “what is said” (Horn 2004; Davis 2010) The following exchange illustrates this distinction:

- (16) A: Are you coming tonight?
B: I have to finish an article.

While B responds to A's question, he does not, technically speaking, answer it. That B cannot come to the party has to be inferred from his obligation to finish his article (Searle 1975 accordingly classifies implicatures as indirect speech acts). Grice identified three subtypes of implicature: generalized conversational implicature; particularized conversational implicature; and conventional implicature (see further Gazdar 1979: 49–50; Levinson 1983: 127; Horn 2004: 3–4).

Conversational implicatures, both general and particular, are cancelable, non-detachable, and/or calculable. A cancelable implicature is one that a speaker can felicitously contradict, as in the following:

- (17) A: Are you coming tonight?
B: I have to finish an article, but I'm gonna make it.

The implicature in the first clause of B's answer (that he cannot come) is now gone. Conversely, conversational implicatures can also be felicitously reinforced or strengthened without redundancy (Levinson 2000: 15):

- (18) A: Are you coming tonight?
B: I have to finish an article and can't make it.

⁵Implicatures and conversational maxims have become a prominent topic of investigation and given rise to no shortage of theoretical debate, most of which will be ignored here in the interest of a simple exposition.

B now explicitly answers A's question and says outright what was formerly only implicated.⁶

A nondetachable implicature (on which see Grice 1975: 39) is one that abides even when the form of the sentence changes, provided that the same truth-conditional content is preserved. For instance, the implicature of (18) above could also have been achieved with *I need to finish this article* (16).

Lastly, conversational implicatures are calculable, which means that they are inferred from the use of an utterance in a particular context by certain principles (which are presented in the next section). The difference between a generalized conversational implicature and a particularized conversational implicature boils down to differences in context-sensitivity, with the former being less context-sensitive than the latter.⁷ In the following example, the primed example is derivable regardless of context (examples from Horn 2004: 4):

- (19) *a.* The cat is in the hamper or under the bed.
a'. I don't know for a fact that the cat is under the bed.

Disjunction routinely leads to an implicature about the speaker's ignorance. With the next example, however, the implicature is restricted to the context of the utterance:

- (20) *a.* [in a recommendation letter for a philosophy position] Jones dresses well and writes grammatical English.
a'. Jones is no good at philosophy.

The primed implicature is not one that would arise in other contexts. Our Herodotean example is a case of a particularized conversational implicature.

While conventional implicatures have been the subject of considerable controversy, they are generally said to differ from conversational implicatures

⁶As a result of these two properties, implicatures are sometimes contrasted with entailments (e.g., Bach 2006). Entailment is a relationship between a sentence and a set of sentences. Roughly speaking, it is a proposition that must be true given the truth of another proposition, as with the following pair:

p: I drove home.
p': I drove somewhere.

A logical consequence of the truth of *p* is *p'*. While implicatures and entailments often differ, they can overlap (Grice 1975: 39; Huang 2007: 56). This possibility does not concern us here, however.

⁷This distinction is called into question by Hirschberg 1991 and Carston 1995, but defended by Levinson 2000.

in that they are non-cancelable, detachable, and non-calculable. Typical examples of words that trigger conventional implicatures include *even*, *too*, *but*, and *therefore*. Consider the following example (taken from Horn 2004: 3; small caps are used to represent sentence stress):

- (21) *a.* Even KEN knows it's unethical.
a'. Ken is the least likely [of a contextually invoked set] to know it's unethical.

The inference in (21.*a'*) is not cancelable without contradiction: one cannot for instance say felicitously “Even KEN knows it's unethical, but that's not surprising.” The inference is, however, detachable, which means that in an utterance with the same truth-conditional content (roughly speaking, one that is synonymous), the implicature would not arise:

- (22) Ken knows it's unethical (too).

Lastly, the implicature in (21.*a'*) is non-calculable in that it is always present, unlike conversational implicatures, which arise from conversational maxims.

Before moving on, it is worth pointing out that implicatures are no mere background phenomenon. They play a crucial role in communication, in as much as what is implicated is often more important than what is said. This is certainly the case in the Croesus *logos*, as we will see in section four.

3.1. The Cooperative Principle and Conversational Maxims

Grice 1975 formulated a descriptive generalization about how effective communication takes place, which he labeled the Cooperative Principle: “Make your conversational contribution such as is required, at the stage at which it occurs, by the accepted purpose or direction of the talk exchange in which you are engaged” (45). Grice further subdivided his Cooperative Principle into four maxims (which have since become known as the Gricean maxims), which are premises about how people normally communicate (Levinson 2000: 3). These maxims offer a bridge between what is said and what is understood, in as much as they enable speakers to calculate implicatures.

The maxims as formulated by Grice 1975 are as follows:

(23.1) *Maxim of Quality*

Be Truthful.

Do not say what you believe to be false.

Do not say that for which you lack adequate evidence.

(23.2) Maxim of Quantity

Make your contribution as informative as is required (for the current purposes of the exchange).

Do not make your contribution more informative than is required.

(23.3) Maxim of Relevance

Be Relevant.

(23.4) Maxim of Manner

Be Clear.

Avoid obscurity of expression.

Avoid ambiguity.

Be brief (avoid unnecessary prolixity).

Be orderly.

It is worth stressing that these maxims are not generalizations of the sort that when violated they are shown to be false. They are rather social conventions—Horn 2004: 8 labels them “default assumptions”—that when contravened have communicative consequences including, but not limited to, implicatures. Grice himself noted that there are various scenarios in which speakers fail to fulfill a maxim, including the option to flout it outright (1975: 49): “This situation [i.e., flouting a maxim] is one that characteristically gives rise to a conversational implicature; and when a conversational implicature is generated in this way, I shall say that a maxim is being exploited.” As we will see, this is exactly what we find in our Herodotean example.

Conversational maxims and their role in communication are a huge topic of research, and since Grice’s original formulation, the system has undergone refinements (it has also been subject to a considerable amount of criticism; see, e.g., Horn 2004: 7–8). I mention only one of these here, the typology advanced by Levinson 2000 (for different typologies, see Sperber and Wilson 1995, as well as Horn 1984 and 2004), which reduces the maxims to the following three speaker/addressee principles (which I quote in simplified form from Huang 2012: 614–16):

(24.1) Q-Principle

Speaker: Do not say less than is required.

Addressee: What is not said is not the case.

(24.2) I-Principle

Speaker: Do not say more than is required.

Addressee: What is generally said is stereotypically and specifically exemplified.

(24.3) *M-Principle*

Speaker: Do not use a marked expression without reason.

Addressee: What is said in a marked way conveys a marked message.

As we will see below, the oracular response given to Croesus violates both the Q-principle (its ambiguity makes it underinformative) as well as the M-principle (preposing is marked expression). This latter principle I want to illustrate with an example in English (from Horn 2004: 16):

(25.1) He stopped the machine.

(25.2) He got the machine to stop.

The synthetic causative *stopped* in (25.1) implicates that the subject caused the machine to stop in a conventional way, while the periphrastic causative in (25.2) implicates that this was achieved in a non-canonical way. As we will see in the next section, this principle is crucial for understanding how oracles communicate.

4. ORACULAR COMMUNICATION

Oracular language was well known in antiquity for being indirect and at odds with everyday patterns of communication.⁸ This is perhaps the touchstone feature of the genre, at least in its literary guise (see Kindt forthcoming), and indeed the oracular response to Croesus's question of whether he should attack the Persians was famous already in antiquity for its ambiguity (Lucian, *Iupp. trag.* 43). To say that oracular language is "indirect," however, is vague, as it could mean any number of things. A more insightful view is to see oracular responses, following Heraclitus, as rooted in implicature:

(26) ὁ ἄναξ, οὗ τὸ μαντεῖόν ἐστι τὸ ἐν Δελφοῖς, οὔτε λέγει οὔτε κρύπτει, ἀλλὰ σημαίνει. (Heraclitus, fr. 22 B93 DK)

The lord, to whom belongs the oracle at Delphi, neither says [sc. directly] nor conceals, but implicates.

I have translated the verb σημαίνει with "implicates." As we will see below, the oblique quality of the oracle's response lies in the fact that to correctly decode an oracular response is to correctly calculate its implicatures. The ambiguity (in a broad, non-technical, sense that encompasses vagueness, indeterminacy, etc.) that is considered a prototypical feature of oracular language I suggest

⁸For the Delphic oracle generally, see Parke and Wormell 1956; Crahay 1956; Fontenrose 1978.

results from the practice of communicating far more via implicature than is common in everyday language.⁹ One might wonder (as did an anonymous reviewer) why we should expect oracles to follow the Gricean maxims at all. The answer is that if they were completely uncooperative and did not follow any of the maxims, communication would border on the impossible, and they would accordingly have nothing to offer. Like casinos, oracles have to be able to convince their visitors that they have the chance to gain something. Furthermore, the fact is that oracles do follow the maxims often enough for a deviation to be relevant: for example, despite the ambiguity of the oracular response to Croesus's question, it does obey the Maxim of Relevance.¹⁰

4.1. *The Fall of Croesus*

Against this background of preposing and pragmatic implicature, we are now in a position to see how these features contribute to the Croesus *logos*. I begin with a review of Herodotus's narrative of the oracular response, to be followed by a discussion of the versions that are preserved elsewhere.

(27) τοῖσι δὲ ἄγειν μέλλουσι τῶν Λυδῶν ταῦτα τὰ δῶρα ἐς τὰ ἱερά ἐνετέλλετο ὁ Κροῖσος ἐπειρωτᾶν τὰ χρηστήρια εἰ στρατεύηται ἐπὶ Πέρσας Κροῖσος καὶ εἴ τινα στρατὸν ἀνδρῶν προσθέοιτο φίλον. [2] ὡς δὲ ἀπικόμενοι ἐς τὰ ἀπεπέμφθησαν, οἱ Λυδοὶ ἀνέθεσαν τὰ ἀναθήματα, ἐχρέωντο τοῖσι χρηστηρίοις, λέγοντες “Κροῖσος ὁ Λυδῶν τε καὶ ἄλλων ἐθνέων βασιλεὺς, νομίσας τάδε μαντήια εἶναι μούνα ἐν ἀνθρώποισι, ὅμιν τε ἄξια δῶρα ἔδωκε τῶν ἐξευρημάτων, καὶ νῦν ὑμέας ἐπειρωτᾶ εἰ στρατεύηται ἐπὶ Πέρσας καὶ εἴ τινα στρατὸν ἀνδρῶν προσθέοιτο σύμμαχον.” [3] οἱ μὲν ταῦτα ἐπειρωτῶν, τῶν δὲ μαντηῶν ἀμφοτέρων ἐς τὸν αἰ γνῶμαι συνέδραμον, προλέγουσαι Κροῖσῳ, ἣν στρατεύηται ἐπὶ Πέρσας, μεγάλην ἀρχὴν μιν καταλύσειν. τοὺς δὲ Ἑλλήνων δυνατωτάτους συνεβούλευόν οἱ ἐξευρόντα φίλους προσθέσθαι. (Hdt. 1.53)

Croesus instructed the Lydians who were going to bring these gifts to the temples to inquire of the oracles whether he should send an army against the Persians, and whether he should add an allied army. [2] When the Lydians came to the

⁹ I thus disagree with the view of, e.g., Manetti 1993: 15–18, who claims that the divinatory sign is enigmatic, and renders σημαίνει “indicates by means of (enigmatic) signs” (1993: 17). The sign itself is not enigmatic, but its use is. I am sympathetic to the sign-based approach to Herodotean communication of Hollmann 2005 and 2011, however.

¹⁰ For discussion of oracular language in Herodotus generally, see Fairbanks 1906; Kindt 2006, forthcoming; and Barker 2006.

places where they had been sent, they presented the offerings, and made an inquiry with the oracles, saying: "Croesus, king of the Lydians and other peoples, in his belief that these alone are the (true) places of divination among men, gives to you such gifts as your wisdom deserves. And now he asks you whether he should lead a campaign against the Persians, and whether he should add an allied army." [3] These (are the questions) they asked, and the pronouncements of both oracles were the same, prophesying to Croesus that if he were to send an army against the Persians, it is a GREAT empire that he would destroy. And they advised him to find the most powerful Greeks and make them allies.

Herodotus describes Croesus's reaction as follows:

(28) ἐπειτε δὲ ἀνενειχθέντα τὰ θεοπρόπια ἐπέθετο ὁ Κροῖσος, ὑπερήσθη τε τοῖσι χρηστηρίοισι, πάγχυ τε ἐλπίσας καταλύσειν τὴν Κύρου βασιλίην, πέμπας αὐτίς ἐς Πυθῶ Δελφοὺς δωρέεται, πυθόμενος αὐτῶν τὸ πλῆθος, κατ' ἄνδρα δύο στατήρσι ἕκαστον χρυσοῦ. [2] Δελφοὶ δὲ ἀντι τούτων ἔδοσαν Κροῖσῳ καὶ Λυδοῖσι προμαντήιην καὶ ἀτελείην καὶ προεδρίην, καὶ ἐξείναι τῷ βουλομένῳ αὐέτων γίνεσθαι Δελφὸν ἐς τὸν αἰεὶ χρόνον. (Hdt. 1.54)

Once Croesus found out about the prophecies after they had been brought back, he was overjoyed with the oracles and fully expected that he would destroy the kingdom of Cyrus; sending once again to Pytho, he gave the Delphians, whose number he had found out, two gold staters per man. [2] The Delphians in return gave Croesus and the Lydians the right of first consultation with the oracle, exemption from charges, prime seats, and, for anyone who wanted it, to become a Delphic citizen for perpetuity.

While pleased with the oracular responses, it is worth noting that Croesus is not entirely persuaded. For he eventually makes a third inquiry with the oracle, in which he asks if his reign (μουναρχίη) will be a long one (Hdt. 1.55). The oracle responds that when the Medes are ruled by a mule, then he should not be afraid to flee. Thinking that the Medes will never be ruled by a mule, the king decides that his empire will be forever secure (Hdt. 1.56).

Once Croesus has lost his empire, Herodotus offers the following retrospective at 1.91.4:

(29) κατὰ δὲ τὸ μαντήιον τὸ γενόμενον οὐκ ὀρθῶς Κροῖσος μέμφεται. προηγόρευε γὰρ οἱ Λοξίης, ἦν στρατεύηται ἐπὶ Πέρσας, μεγάλην ἀρχὴν αὐτὸν καταλύσειν. τὸν δὲ πρὸς ταῦτα χρῆν εὖ μέλλοντα βουλευέσθαι ἐπειρέσθαι πέμπσαντα κότερα τὴν ἑωυτοῦ ἢ τὴν Κύρου λέγει ἀρχίην. οὐ συλλαβῶν δὲ τὸ ῥηθὲν οὐδ' ἐπανειρόμενος ἑωυτὸν αἴτιον ἀποφαινέτω.

As far as the oracle that he received, Croesus was wrong to blame it. For Loxias prophesied to him that, if he were to lead a campaign against the Persians, it is a great empire that he would destroy. He would have needed, if he was going to make the right decision, to send someone to ask whether he meant his own empire or that of Cyurs. But since he neither understood the utterance nor followed up, let him assume responsibility.

It is worth noting that in the retrospective *μιν* has been replaced with (presumably) enclitic *αὐτόν* (at least in four manuscripts). We have seen, then, that Croesus is cautious about his future and consults the oracle a total of three times. The following questions and answer(s) play a crucial role in his decision to attack Persia:

(30) καὶ νῦν ὑμέας ἐπειρωτᾶ εἰ στρατεύηται ἐπὶ Πέρσας καὶ εἴ τινα στρατὸν ἀνδρῶν προσθέοιτο σύμμαχον. (Hdt. 1.53.2)

(31.1) προλέγουσαι Κροίσω, ἦν στρατεύηται ἐπὶ Πέρσας, [μεγάλην] ἀρχὴν=μιν καταλύσειν. (Hdt. 1.53.3)

(31.2) προηγόρευε γὰρ οἱ Λοξίης, ἦν στρατεύηται ἐπὶ Πέρσας, [μεγάλην] ἀρχὴν=αὐτόν καταλύσειν. (Hdt. 1.91.4)

Croesus's messengers present a yes/no question ("Should Croesus lead a campaign against the Persians?"), but the oracle's response does not offer a direct answer. Instead, Croesus has to deduce it from the implicatures (for indirect answers generally, see Clark 1979). Before proceeding to an analysis of how Croesus does this, we have to consider the question of the authenticity of the oracle, which has been doubted (beginning with Cic. *Div.* 2.115) or even straightforwardly denied (Fontenrose 1978: 113; see further Asheri, Lloyd, and Corcella 2007 ad loc.).

The first point to acknowledge is that what we have in (31.1) and (31.2) is not the original response (Fontenrose 1978: 113–14 and Asheri, Lloyd, and Corcella 2007 ad loc. refer to it as a *post eventum* composition), which would have been in direct speech as well as in verse. Aristotle (*Rh.* 1407a38) and Diodorus Siculus (9.31.1) report the oracle as follows:

(32) Κροίσος Ἄλυν διαβάς μεγάλην ἀρχὴν καταλύσει.

Upon crossing the Halys, Croesus will destroy a great empire.

In an actual Delphic oracle, however, the verb would more likely have been in the second person: even when responses were relayed through envoys, the use of the third person is rare (Fontenrose 1978: 113; Asheri, Lloyd, and Carcella 2007 ad loc.).

As the metrical version in (32) is no longer in indirect speech, the clitic pronoun is now gone, which was crucial for enabling us to detect preposed phrases. Its absence of course does not entail that preposing is not present in this metrical version: it simply removes the diagnostic. The Latin version of the oracle that Cicero (Div. 2.115) quotes in fact preserves an equivalent of preposing:

(33) Croesus Halyn penetrans magnam pervertet opum vim.

The discontinuity between *magnam* and *vim* is a device that focuses elements of a clause in a manner similar to preposing (see Devine and Stephens 1994: 480–87, 1999, and 2006: 542–48). The hyperbaton of (33) would then translate the preposing of (31).

Whether this or a similar oracle was actually delivered to Croesus, or whether it was a creation on the part of Herodotus, is a question that I leave open (although I incline toward the latter view).¹¹ The analysis below is not affected either way, because the pragmatic meaning that arises remains by and large the same. The oracular response is designed to be ambiguous but biased: the referent of *μεγάλην ἀρχήν* cannot be resolved, but the preposing of the adjective, as I will lay out in the next section, subtly suggests a response in favor of attacking Persia. As a result, Croesus faces a decision that is just as irresistible as it is ill-fated. Whether this dilemma was set up by Herodotus (i.e., he is responsible for the preposing) or an actual oracle, is a separate issue.

Before moving on to discuss the pragmatic implicatures of the oracle, I would like to call attention to Herodotus's description of the oracle at 1.75.2, where he refers to it as *κίβδηλος*:

(34) τὰ Κροῖσος ἐπιμεμφόμενος τῷ Κύρῳ ἕς τε τὰ χρηστήρια ἔπεμπε εἰ στρατεύηται ἐπὶ Πέρσας, καὶ δὴ καὶ, ἀπικομένου χρησμοῦ κίβδηλου, ἐλπίσας πρὸς ἑωυτοῦ τὸν χρησμὸν εἶναι, ἐστρατεύετο ἕς τὴν Περσέων μοῖραν.

Croesus, blaming Cyrus over this both sent (messengers) to the oracles (to ask) if he should lead a campaign against the Persians and, what is more, once the ambiguous oracle arrived, he led a campaign into the territory of the Persians, expecting that the oracle was in his favor.

The adjective is used to refer to mixed metals (Kroll 2000: 89) and thus means “base, adulterated” (e.g., Thgn. 119). It is used metaphorically in the sense of “spurious, false, fraudulent, counterfeit.” It is in the latter sense that Kurke

¹¹ For an account of the oracle that challenges the traditional focus on authenticity, see Maurizio 1997.

2009: 418 takes the word in this passage, but a better fit would be either “ambiguous” (compare the metaphor in the phrase *mixed messages*) or “deceptive.”

If the latter reading is intended, Herodotus would himself be foreshadowing Lydian destruction.

4.2. Oracular Implicatures

The fundamental puzzle of the oracle’s response is the referent of *μεγάλην ἀρχήν*: Lydia or Persia? Croesus assumes the latter, the oracle intends the former. How does this miscommunication arise? Before analyzing the oracle’s answer, we have to analyze Croesus’s question. The king’s asking the oracle “Should I attack Persia?” presupposes that he does not know the answer. Converted into statement form, it reflects something like the following:

(35) I am not sure whether I can defeat so great an ἀρχή as Persia.

It is this presupposition, then, that is at play in the discourse when the messengers bring their question to the Delphic oracle.

The oracle’s response itself contravenes two of Levinson’s pragmatic principles, M and Q. The violation of the M-principle lies in the preposing of the adjective *μεγάλην*: its marked form implies a marked meaning. And it is the ambiguity of the Pythia’s response that violates the Q-principle, as it is insufficiently informative. Both violations give rise to their own implicatures, which pull in opposite directions.

The preposing of *μεγάλην* is, as in the passages presented in section two above, corrective: against Croesus’s uncertainty in (35) as to whether he can defeat the Persians, the oracle asserts something like “you’re not just going to destroy an empire, but a great one.” The use of corrective focus here brings with it an implicature: “you’re going to destroy more than you anticipate.” This implicature alone does not yield an unambiguous answer to Croesus’s question, however. In fact, it is counterbalanced by another implicature: by flouting the Q-principle, the oracle generates an implicature licensed along the lines of, “things are not as they seem,” “be careful,” and “think twice.” This seems to be standard for oracular discourse on the whole (or at least in literary contexts).

There is, then, a tension between these two implicatures: one suggesting that Croesus will destroy more than he anticipates, one advising caution. Croesus interprets the first subjectively and decides to attack the Persian empire, as Manetti 1993: 28 has argued:

Croesus is deflected from the correct interpretation of the oracle by an implied semiotic device: the assumption that, as it is Croesus who is consulting the

oracle, the god will assume Croesus' perspective in the response. Obviously, from Croesus' perspective, the empire which will be destroyed can only be the Persian empire.

While I agree with the spirit of Manetti's claim, I differ somewhat on the particulars. I prefer to see Croesus's decision as grounded in a general fact of human communication and cognition, and only secondarily as reflecting any particular assumption about the perspective assumed by Apollo. Subjective interpretations of utterances usually require the least effort (cf., e.g., Carston 2005), so it is entirely natural that Croesus interpret the oracle the way he does. But successful interpretation of oracles seems to be possible only when one heeds the oracular implicature of "think twice," and reaches for less obvious readings. Consider for instance the oracle given to Cleomenes (Hdt. 6.76–80) that he would take Argos: it refers not to the city of Argos (which would be the least-effort, prototypical reading), but rather a grove by the same name. The Spartan king Archidamus was likewise advised to avoid Σικελία (*Suda* Σ389). The oracle was not, however, referring to the island (again, the least-effort reading), but rather a hill in Attica by the same name. So Croesus, too, would have had to look past the least-effort, subjective interpretation to preserve his empire.

Before turning to the final section of the paper, I would like to add that there may also be some lexical association at play that encourages Croesus to construe μεγάλην ἀρχήν as the Persian empire. The adjective μέγας is used to characterize both the Persian kingdom (used predicatively of the Median empire at 1.185.1) as well as the Persian king (used attributively at Hdt. 1.188.1, 1.192.1; Aesch. *Pers.* 24). "Great" is also a staple of Old Persian royal titulature: Cyrus, Dareios, Xerxes, and Artaxerxes all refer to themselves with the phrase *xšāyaθiya vazrka*, lit. "king great."¹² At 6.98.3, Herodotus also renders the name Artaxerxes μέγας ἀρχίος. Still, I do not think that this effect (if it is in fact present) can have played anything more than a secondary role in the interpretation of the oracle in encouraging the least-effort reading of μεγάλην ἀρχήν as Persia. Whether there was a conventional collocation "great empire" for referring to the Persian empire is difficult to establish with certainty. Furthermore, if one were to attempt to make this association between the adjective "great" and Persia the sole source of the ambiguity, one

¹² E.g. Cyrus Bīsutūn §1B, Xerxes I Elvend §2B, Artaxerxes II Hamadan a §1B; see Schmitt 2009 for the texts. The phrase was adopted from the Akkadian title *šarru rabū*; see Seux 1967: 298–300 for citations.

would have no way to account for the preposing. Older accounts of Croesus's interpretation that see the ambiguity of the oracular response as consisting solely in the referent of *μεγάλην* face a related problem: they interpret the situation without taking into consideration the form of the utterance, with the result that their accounts lack any motivation for the latter. My own account is not necessarily meant to counter earlier readings of the Croesus *logos*, so much as to offer an analysis that takes full account of the linguistic form of the oracular response.

5. FINAL THOUGHTS

I have argued that the preposing of the adjective *μεγάλην* in the response of the Delphic oracle plays a crucial role in Croesus's misinterpretation of the oracle as told by Herodotus. Preposing here signals corrective focus, which gives rise to the implicature that Croesus will destroy more than he anticipates. Subjectively interpreted, this means the Persian empire; objectively, the king is going to destroy his own. Beyond this reading of the oracular response, I have attempted to show more generally the potential that Gricean pragmatic theory has for our understanding of classical texts. Not only do classicists stand to benefit from this area of research, but they are also in an excellent position to contribute to it. Research in this area is overwhelmingly confined to English and to decontextualized examples. Given how much interpretive research has been lavished on classical texts, they provide a unique testing ground for this framework, which among other things offers us the chance to understand how pragmatic principles in Greek differ from those of English speakers.

WORKS CITED

- Agbayani, B. and Golston, C. 2010. "Second-Position Is First-Position: Wackernagel's Law and the Role of Clausal Conjunction." *IF* 115: 1–21.
- Adams, J. N. 1994a. *Wackernagel's Law and the Placement of the Copula esse in Classical Latin*. Cambridge: Cambridge Philological Society.
- 1994b. "Wackernagel's Law and the Position of Unstressed Personal Pronouns in Classical Latin." *TPS* 92: 103–78.
- Asheri, D., Lloyd, A., and Corcella, A. 2007. *A Commentary on Herodotus Books I–IV*. Ed. by O. Murray and A. Moreno. Trans. by B. Graziosi et al. Oxford: Oxford University Press.
- Bach, K. 2006. "The Top 10 Misconceptions about Implicature." In Birner, B. J. and Ward, G. eds. *Drawing the Boundaries of Meaning: Neo-Gricean Studies in Pragmatics and Semantics in Honor of Laurence R. Horn*. Amsterdam: John Benjamins. 21–30.
- Barker, E. 2006. "Paging the Oracle: Interpretation, Identity and Performance in Herodotus' *History*." *G&R* 53: 1–28.
- Birner, B. J. and Ward, G. 1998. *Information Status and Noncanonical Word Order in English*. Amsterdam: John Benjamins.

- Carston, R. 1995. "Quantity Maxims and Generalised Implicature." *Lingua* 96: 213–44.
- 2005. "A Note on Pragmatic Principles of Least Effort." *UCL Working Papers in Linguistics* 17: 271–78.
- Clark, H. H. 1979. "Responding to Indirect Speech Acts." *Cognitive Psychology* 11: 430–77.
- Cole, P. and Morgan, J. L. eds. 1975. *Syntax and Semantics, Volume 3: Speech Acts*. New York: Academic Press.
- Crahay, R. 1956. *La Littérature oraculaire chez Hérodote*. Paris: Belles Lettres.
- Defradas, J. 1954. *Les Thèmes de la propagande delphique*. Paris: Klincksieck.
- Davis, W. 2010. "Implicature." *The Stanford Encyclopedia of Philosophy* [<http://plato.stanford.edu/entries/implicature/>, last accessed 3 May 2013].
- Devine, A. M. and Stephens, L. D. 1994. *The Prosody of Greek Speech*. Oxford: Oxford University Press.
- 1999. *Discontinuous Syntax: Hyperbaton in Greek*. Oxford: Oxford University Press.
- 2006. *Latin Word Order: Structured Meaning & Information*. Oxford: Oxford University Press.
- Dik, H. 1995. *Word Order in Ancient Greek: A Pragmatic Account of Word Order Variation in Herodotus*. Amsterdam: Brill.
- É. Kiss, K. 1998. "Identificational Focus versus Information Focus." *Language* 74: 245–73.
- Erteschik-Shir, N. 2007. *Information Structure: The Syntax-Discourse Interface*. Oxford: Oxford University Press.
- Fairbanks, A. 1906. "Herodotus and the Oracle at Delphi." *CJ* 1: 37–48.
- Fontenrose, J. 1978. *The Delphic Oracle: Its Responses and Operations with a Catalogue of Responses*. Berkeley: University of California Press.
- Fraenkel, E. 1964. "Kolon und Satz: Beobachtungen zur Gliederung des antiken Satzes, II." In *id. Kleine Beiträge zur klassischen Philologie*. Vol. 1. Rome: Edizioni di storia e letteratura. 93–130. [Originally published in *Nachrichten der Göttinger Gesellschaft der Wissenschaften*, Phil.-hist. Klasse, 1933, 319–54.]
- Gazdar, G. 1979. *Pragmatics: Implicature, Presupposition, and Logical Form*. New York: Academic Press.
- Givón, T. 2001. *Syntax: An Introduction*. Vol. 2. Amsterdam: John Benjamins.
- Glanzberg, M. 2005. "Focus: A Case Study on the Semantics-Pragmatics Boundary." In Szabó, Z. G. ed. *Semantics vs. Pragmatics*. Oxford: Clarendon Press. 72–110.
- Goldstein, D. M. 2010. "Wackernagel's Law in Fifth-Century Greek." Diss. University of California, Berkeley.
- forthcoming. "Wackernagel's Law I." In Giannakis, G. et al. eds. *Encyclopedia of Ancient Greek Language and Linguistics*. Leiden: Brill.
- Grice, H. P. 1975. "Logic and Conversation." In Cole and Morgan, eds. 41–58. [Repr. in Grice, P. ed. 1989. *Studies in the Way of Words*. Cambridge, MA: Harvard University Press. 22–40.]
- Gundel, J. K. 1994. "On Different Kinds of Focus." In Bosch, P. and van der Sandt, R. eds. *Focus and Natural Language Processing, Vol. 3: Discourse*. Heidelberg: IBM Deutschland Informationssysteme GmbH. 457–66.
- 1999. "On Three Kinds of Focus." In Bosch, P. and van der Sandt, R. eds. *Focus: Linguistic, Cognitive, and Computational Perspectives*. Cambridge: Cambridge University Press. 293–305.

- Gussenhoven, C. 2008. "Types of Focus in English." In Lee, C., Gordon, M., and Büring, D. eds. *Topic and Focus: Cross-linguistic Perspectives on Meaning and Intonation*. Dordrecht: Springer. 83–100.
- Hale, M. 1987a. "Notes on Wackernagel's Law in the Language of the Rigveda." In Watkins, C. ed. *Studies in Memory of Warren Cowgill (1929–1985): Papers from the Fourth East Coast Indo-European Conference*. Berlin: de Gruyter. 38–50.
- 1987b. "Studies in the Comparative Syntax of the Oldest Indo-Iranian Languages." Diss. Harvard.
- 1996. "Deriving Wackernagel's Law: Prosodic and Syntactic Factors Determining Clitic Placement in the Language of the Rigveda." In Halpern and Zwicky, eds. 165–98.
- 2007. *Historical Linguistics: Theory and Method*. Malden, MA: Wiley-Blackwell.
- Halpern, A. and Zwicky, A. M. eds. *Approaching Second: Second Position Clitics and Related Phenomena*. Stanford: CSLI.
- Hellmann, F. 1934. *Herodots Kroisos-Logos*. Berlin: Weidmann.
- Heuss, A. 1973. "Motive von Herodots lydischem Logos." *Hermes* 101: 385–419.
- Hirschberg, J. 1991. *A Theory of Scalar Implicature*. New York: Garland.
- Hollmann, A. 2005. "The Manipulation of Signs in Herodotos' *Histories*." *TAPA* 135: 279–327.
- 2011. *The Master of Signs: Signs and the Interpretation of Signs in Herodotus' Histories*. Cambridge, MA: Harvard University Press.
- Horn, L. R. 1984. "Toward a New Taxonomy for Pragmatic Inference: Q-based and R-based Implicature." In Schiffrin, D. ed., *Meaning, Form and Use in Context*. Washington: Georgetown University Press. 11–42.
- 2004. "Implicature." In Horn, L. R. and Ward, G. eds. *The Handbook of Pragmatics*. Malden, MA: Blackwell. 3–28.
- Huang, Y. 2007. *Pragmatics*. Oxford: Oxford University Press.
- 2012. "Neo-Gricean Pragmatic Theory of Conversational Implicature." In Heine, B. and Narrog, H. eds. *The Oxford Handbook of Linguistic Analysis*. Oxford: Oxford University Press. 607–31.
- Immerwahr, H. R. 1966. *Form and Thought in Herodotus*. Cleveland: Press of Western Reserve University.
- Keydana, G. 2011. "Wackernagel in the Language of the Rigveda: A Reassessment." *Historische Sprachforschung* 124: 106–33.
- Kindt, J. 2006. "Delphic Oracle Stories and the Beginning of Historiography: Herodotus' *Croesus Logos*." *CP* 101: 34–51.
- forthcoming. "The Inspired Voice: Oracular Communication as Enigmatic Communication." In Naiden, F. and Talbert, R. eds. *The Oxford Handbook of Ancient Communications*. Oxford: Oxford University Press.
- Klees, H. 1965. *Die Eigenart des griechischen Glaubens an Orakel und Seher: Ein Vergleich zwischen griechischer und nichtgriechischer Mantik bei Herodot.* Stuttgart: Kohlhammer.
- Krifka, M. 2008. "Basic Notions of Information Structure." *Acta Linguistica Hungarica* 55: 243–76.
- Krisch, T. 1990. "Das Wackernagelsche Gesetz aus heutiger Sicht." In Eichner, H. and Rix, H. eds. *Sprachwissenschaft und Philologie: Jacob Wackernagel und die Indogermanistik heute*. Wiesbaden: Reichert. 64–81.

- Kroll, J. 2000. Review of Kurke 1999. *CJ* 96: 85–90.
- Kurke, L. 1999. *Coins, Bodies, Games, and Gold: The Politics of Meaning in Archaic Greece*. Princeton: Princeton University Press.
- 2009. “‘Counterfeit Oracles’ and ‘Legal Tender’: The Politics of Oracular Consultation in Herodotus.” *CW* 102: 417–38.
- Levinson, S. C. 1983. *Pragmatics*. Cambridge: Cambridge University Press.
- 2000. *Presumptive Meanings: The Theory of Generalized Conversational Implicature*. Cambridge, MA: MIT Press.
- Lowe, J. 2011. “R̥gvedic Clitics and ‘Prosodic Movement.’” In Butt, M. and Holloway, T. eds. *Proceedings of the LFG11 Conference*. Stanford: CSLI. 360–80.
- Manetti, G. 1993. *Theories of the Sign in Classical Antiquity*. Trans. by C. Richardson. Bloomington: Indiana University Press.
- Maurizio, L. 1997. “Delphic Oracles as Oral Performances: Authenticity and Historical Evidence.” *ClAnt* 16: 308–34
- Parke, H. W. and Wormell, D. E. W. 1956. *The Delphic Oracle*. 2 vols. Oxford: Blackwell.
- Pelling, C. B. 2006. “Educating Croesus: Talking and Learning in Herodotus’ Lydian *Logos*.” *ClAnt* 25: 141–77.
- Roberts, C. 2012. “Information Structure in Discourse: Towards an Integrated Formal Theory of Pragmatics.” *Semantics and Pragmatics* 5: 1–69.
- Romm, J. S. 1998. *Herodotus*. New Haven: Yale University Press.
- Schmitt, R. 2009. *Die altpersischen Inschriften der Achaimeniden*. Wiesbaden: Reichert.
- Searle, J. R. 1975. “Indirect Speech Acts.” In Cole and Morgan, eds. 59–82.
- Scheppers, F. 2011. *The Colon Hypothesis: Word Order, Discourse Segmentation and Discourse Coherence in Ancient Greek*. Brussels: VUBPRESS.
- Sebeok, T. A. and Brady, E. 1979. “The Two Sons of Croesus: A Myth about Communication in Herodotus.” *QUCC* 1: 7–22.
- Seux, M.-J. 1967. *Épithètes royales akkadiennes et sumériennes*. Paris: Letouzey et Ané.
- Spencer, A. and Luís, A. R. 2012. *Clitics: An Introduction*. Cambridge: Cambridge University Press.
- Sperber, D. and Wilson, D. 1995. *Relevance: Communication & Cognition*. 2nd ed. Cambridge, MA: Blackwell.
- Taylor, A. 1990. “Clitics and Configurationality in Ancient Greek.” Diss. University of Pennsylvania.
- 1996. “A Prosodic Account of Clitic Position in Ancient Greek.” In Halpern and Zwicky, eds. 478–503.
- Wackernagel, J. 1892. “Über ein Gesetz der indogermanischen Wortstellung.” *IF* 1: 333–436.
- West, S. 2002. *Demythologisation in Herodotus*. Torun: Wydawnictwo Uniwersytetu Mikołaja Kopernika.

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