

THE SYNTAX OF COREFERENCE IN GREEK

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In Latin MSS . . . a critic of course more or less sees his way. But in Greek, as far as my experience goes, we are in a labyrinth without a clue.

—Richard Shilleto

SINCE THE TIME of A. Dyroff, studies of Greek pronominal syntax have raised many more questions than they have answered.¹ Among the most challenging areas of inquiry is the syntax of co-referring elements, termed “anaphora” in the usage of modern linguistics.² Certain pronouns, such as the reflexive, seem strictly anaphoric—that is, they lack independent reference and must corefer with a proximate antecedent; other pronouns seem variable, in that they may refer back to a rather distant antecedent or have no antecedent at all. The study of anaphora challenges us to determine the conditions under which the pronouns of a language associate with possible antecedents. There is a theoretical question here of central importance to any comprehensive theory of syntax: in the various relationships between antecedent and pronoun is the distribution of pronominal forms a syntactic, semantic, or discourse-level phenomenon (i.e., a phenomenon affected by the discourse-situation beyond the sentence, as that situation is constituted by the speaker, the audience, and the subject)? Of more immediate philological interest is the concomitant task of identifying the principles that govern this distribution. In this article I present an account of anaphora in Greek based on: an independent analysis of all relevant pronominal constructions in Herodotus;³ the philological studies of

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1. The following studies form a continuous line of inquiry: A. Dyroff, *Geschichte des Pronomen Reflexivum*, 2 vols. (Würzburg, 1892–93); J. E. Powell, “Studies on the Greek Reflexive: Herodotus,” *CQ* 27 (1933): 208–21; id., “Studies on the Greek Reflexive: Thucydides,” *CQ* 28 (1934): 159–74; id., *A Lexicon to Herodotus* (Cambridge, 1938); B. Goodall, “The Reflexive Pronoun in Xenophon’s *Anabasis* and *Hellenica*,” *CSCA* 9 (1976): 41–59. In this article I do not intend to contest the results of these efforts but wish to reevaluate the descriptive categories “reflexive,” “semireflexive,” etc., and to interpret the Greek data from a different theoretical standpoint.

2. Not to be confused with the more general use of the term in rhetoric and grammar, for which see, e.g., E. Schwyzler, *Griechische Grammatik*, vol. 2: *Syntax und syntaktische Stilistik*, ed. A. Debrunner (Munich, 1950), pp. 25, 603.

3. Used both for the size of the corpus, which yielded nearly four thousand examples, and because the pronouns ἐωυτοῦ and αὐτοῦ do not seem to be confused in the paradosis. Although hyper-Ionicization in the transmission may have artificially normalized the orthography of ἐωυτοῦ, etc., it is unlikely that this form would have been substituted for αὐτοῦ, etc.; note the absence of ἐωυτοῦ, etc., from constructions C2, C3, and C5 in table 1 below.

Powell, Goodall, and others; cross-linguistic evidence from work on a number of languages within the so-called “extended standard theory”; and recent work in the theory of “government and binding.”⁴ I shall argue that the distribution of Greek pronominals (“reflexive” and “non-reflexive”) results from the interaction of two fundamental syntactic (binding) principles with logophoricity, a discourse-factor.⁵ The synchronic analysis presented here, moreover, will shed light on the significant morphosyntactic changes that reshaped the Greek pronominal inventory over the four or five centuries preceding the emergence of the κοινή.

I. INITIAL OBSERVATIONS

Even a small sampling of pronominal constructions will illustrate the desirability of a more complete and systematic treatment of anaphora in Greek than that currently offered by the standard grammars.⁶ Consider the following examples from the Budé Thucydides in which the underlined pronoun refers to (is coindexed with) the subject of a main clause:⁷

- (1) 1. 112. 2 οἱ Ἀθηναῖοι_i . . . ἐστρατεύοντο ναυσὶ διακοσίαις αὐτῶν_i τε καὶ τῶν
 ξυμμάχων. . . .
 The Athenians_i . . . set out with two hundred ships of theirs_i and of (their)
 allies. . . .
- (2) 4. 42. 1 Ἀθηναῖοι_i . . . ἐστράτευσαν . . . δισχιλίους ὀπλίταις ἐαυτῶν_i. . . .
 The Athenians_i set out . . . with two thousand hoplites of theirs_i. . . .
- (3) 2. 81. 1 ἐφύλασσον . . . τὰ αὐτῶν_i ἕκαστοι_i.
 Each_i (group) guarded their own_i.
- (4) 4. 61. 7 οὐ γὰρ ἀπὸ τῆς αὐτῶν_i ὁρμῶνται Ἀθηναῖοι_i. . . .
 For the Athenians_i do not launch their attack from their own_i (land). . . .

The disagreement we find among editors, who must resolve the extensive confusion in the manuscripts between αὐτ- and αὐτ-,⁸ reveals the lack of

4. The standard works are N. Chomsky, *Lectures on Government and Binding* (Dordrecht, 1981); and id., *Some Concepts and Consequences of the Theory of Government and Binding* (Cambridge, Mass., 1982). For the history of this school of linguistics, see F. J. Newmeyer, *Linguistic Theory in America: The First Quarter Century of Transformational Generative Grammar* (New York, 1980).

5. On logophoricity, see section IV below. The term “syntax” is used here to designate the rules of phrase-structure within the sentence and the structural relations between elements, while “discourse” refers to the broader context of the linguistic utterance. On the relation between syntax and discourse, see *Discourse Perspectives on Syntax*, ed. F. Klein-Andreu (New York, 1983), esp. the article by B. Fox, “The Discourse Function of the Participle in Ancient Greek,” pp. 23–41.

6. See, for instance, R. Kühner and B. Gerth, *Ausführliche Grammatik der griechischen Sprache*, part 2: *Satzlehre*, vol. 1 (Hanover and Leipzig, 1898), pp. 561–62: the intuition expressed on these pages (cf. also Dyroff, *Geschichte*, 2:181), that “reflexives” are admitted in subordinate clauses which report the speech, feelings, or thoughts of the main-clause subject, is nowhere developed or much explored.

7. Every illustrative sentence in this article is assigned a number to facilitate cross-reference. An asterisk is used to indicate the ill-formedness of an utterance. Identity of indexes (subscripts) indicates coreference; dissimilar indexes are assigned to terms disjoint in reference. I have used the Budé text of Thucydides, ed. J. de Romilly (Paris, 1953), and the OCT of Herodotus, ed. C. Hude (Oxford, 1927); for my translations I consulted the Penguin Herodotus, trans. A. de Séincourt and rev. A. R. Burn (New York, 1972).

8. Powell, “Studies on the Greek Reflexive: Herodotus,” p. 209, cites these examples (with the apparent inconsistencies) from Stuart Jones’ OCT of Thucydides (Oxford, 1900). When later revising

criteria for distinguishing between “reflexive” and “nonreflexive” in various syntactic slots even in a simple clause. Complex sentences involving anaphora across a clause boundary contain further surprises:

- (5) Herodotus 5. 96. Ἰ Πίτης_i δὲ . . . πᾶν χρῆμα ἐκίνεε, . . . ποιέων ἅπαντα [ὅπως αἱ Ἀθηναὶ γενοίαιτο ὑπ’ ἐωυτῷ_i . . .]
Hippias_i . . . set everything in motion, . . . doing all (he could) [in order that Athens would be subject to him_i . . .]
- (6) 2. 126. Ἰ τὴν_i δὲ . . . δέεσθαι [ὅπως ἂν αὐτῇ_i ἓνα λίθον δωρέοιτο.]
(They said) she_i . . . asked [that (each man) give her_i one stone.]
- (7) 9. 117 οἱ Ἀθηναῖοι . . . ἐδέοντο . . . τῶν στρατηγῶν [ὅπως ἀπάγοιεν σφέας_i ὁπίσω.]
The Athenians_i . . . asked their generals [to take them_i back.]
- (8) 9. 74. Ἰ ὁ Σοφάνης_i . . . (τὴν ἄγκυραν) βαλλέσκετο, [ἵνα δὴ μιν_i οἱ πολέμιοι . . . μετακινήσαι μὴ δύναίαιτο.]
Sophanes_i . . . would cast (the anchor) down, [so that the enemy . . . would not be able to shift him_i.]

Examples such as these, which seem to illustrate the indifference of Greek to the type of pronoun used in so-called indirect reflexion, could be multiplied indefinitely. The language, however, is highly unlikely to have been so indifferent in fact: such behavior squares neither with what we know about the economy of language nor with the facts of pronominal syntax discovered by cross-linguistic investigation.⁹ Since it has a number of parameters, the problem at hand must be analyzed into its constituent parts even to be stated intelligibly.

II. THE PROBLEM

I have limited myself to the Ionic Greek of Herodotus’ *Historiae*, principally because we do not find there textual confusion between the noncontracting ἐωυτ- and other pronouns.¹⁰ Since I aim to correlate grammatical function with lexical items in the pronominal inventory,¹¹ I

the critical apparatus of this edition for the tenth printing (Oxford, 1942), Powell freely changed diacritics on pronominal forms in the text to conform to his analysis of Greek syntax in “Studies on the Greek Reflexive: Thucydides.” I therefore take the sentences from a more recent edition in which the treatment of pronouns seems less systematic.

9. Cf. W. Harbert, “Markedness and the Bindability of Subject of NP,” a paper presented at the Twelfth Linguistics Symposium, University of Wisconsin-Milwaukee, 1983, p. 10; I am unaware of a language that exhibits entirely free variation among pronominal forms. This is not to deny the historically conditioned use of pronouns in limited covariation where the choice seems purely a matter of style; thus, I argue below that Herodotus uses forms in both αὐτ- and σφε- (as well as the single-case forms οἱ and μιν) as pure pronominals. We have yet to identify the stylistic criteria that would allow us to differentiate further among the uses of these pronouns.

10. Alan Nussbaum reminds me that we should not simply regard Herodotean Greek as representative of a natural dialect. Following Powell (“Studies on the Greek Reflexive: Herodotus,” pp. 210–11) and Goodall (“The Reflexive Pronoun,” pp. 41–43), however, I am more concerned with the lack of textual confusion among pronouns than with the orthography of dialectal forms themselves. Powell’s *Lexicon*, in which pronominal constructions are usefully classed according to grammatical configuration, has been indispensable.

11. I will use the phrase “grammatical function” inclusively, to refer to syntactic, semantic, and discourse functions.

will avoid descriptive terms such as “reflexive,” “nonreflexive,” or “semi-reflexive” and refer instead to the forms directly as *ἑωυτ-, σφε-, αὐτ-, μιν, and οἱ*.¹² These five pronouns appear in a variety of clausal configurations falling most generally into two categories:

- I. Simple Clause: [NP . . . X]
- II. Complex Sentence: [NP . . . _α [. . . X . . .]].

In this notation NP is the subject noun phrase of the matrix (main) clause,¹³ and X represents a pronominal form. In each configuration X and NP will be either coindexed in coreference ([NP_i . . . X_i]) or disjoint in reference ([NP_i . . . X_j]). The types of subordinate clause *α* in configuration II may be classed as follows:

- (1) *α* = finite clause;
- (2) *α* = nonfinite clause, either
 - (a) absolute participial clause, or
 - (b) nonabsolute participial clause, or
 - (c) infinitival clause.

To determine the remaining parameters we must consider whether a given clause is reportive or nonreportive,¹⁴ and, in the case of participial clauses, whether the participle is copular (*ἑόντα, γινόμενον*) or non-copular.¹⁵ In practice, our parameters define seven basic clause-types, illustrated below by examples drawn for the most part from the first book of the *Historiae*:

I. Simple Clauses:

C1 The pronoun coreferent with subject:

- (9) 1. 8. 1 οὗτος δὲ ὧν ὁ Κανδαύλης_i ἡράσθη τῆς ἑωυτοῦ_i γυναικός.
Now this Candaules_i conceived a passion for his_i (own) wife.

C2 The pronoun disjoint in reference with subject:

- (10) 1. 36. 1 πολλὰκις δὲ οἱ Μυσοῖ_i . . . ἐπασχον . . . πρὸς αὐτοῦ_j.
The Mysians_i . . . had often suffered at his_j hands.

II. Complex Sentences:

C3 The pronoun coreferent with matrix subject is contained in a finite, non-reportive (subordinate) clause:

- (11) 1. 77. 4 τὸν . . . στρατὸν . . . , [ὃς ἦν αὐτοῦ_i ξεινικός,] πάντα ἀπεις διεσκέ-
δασε (ὁ Κροῖσος_i).
(Croesus_i) disbanded and sent home the troops . . . [that were his_i mercenaries.]

12. The terms “reflexive,” etc., represent notions that do not correspond to an articulated theory of syntax; I prefer to attempt to correlate existing lexical items with the more rigorous categories of government and binding theory (see section IV below).

13. It appears that in Greek an anaphor must have a syntactic subject for its antecedent. It remains to be determined whether this condition is a consequence of more general properties of the language’s core grammar or a fact that needs to be stipulated independently; see the discussion of binding theory in section IV below, with A. Rouvert and J. R. Vergnaud, “Specifying Reference to the Subject,” *Linguistic Inquiry* 11 (1980): 97–202.

14. This parameter concerns clauses that relate the “point of view, feelings, state of knowledge, or awareness” of an individual other than the speaker or narrator; see further section IV below, at n. 24.

15. The seemingly idiosyncratic properties of copular constructions with respect to binding have often been noted; see, e.g., Chomsky, *Concepts and Consequences*, pp. 92–95; P. W. Culicover and W. Wilkins, “Control, PRO, and the Projection Principle,” *Language* 62 (1986): 120–53; and E. Williams, “Predication,” *Linguistic Inquiry* 11 (1980): 203–38; cf. also at n. 33 below.

TABLE I
INCIDENCE OF COREFERENCE WITH MAIN-CLAUSE SUBJECT

	NP _i . . . α[. . . X _i]									
	NP _i . . . X _i		α = FINITE		α = NONFINITE					
	BOUND C1	FREE C2	NON- REPORTIVE C3	REPORTIVE C4	ABSOLUTE PARTICIPIAL C5	NONABSOLUTE PARTICIPIAL			INFINITIVAL	
						C6a	C6b	C6c	C7a	C7b
ἔωυτ-	470	0	0	13	0	15	8	24	58	0
σφε-	15	740	122	24	23	20	7	5	82	3
οἱ	0	355	69	24	15	2	6	3	59	0
μιν	0	280	29	3	3	2	0	0	8	0
αὐτ-	0	1,289	46	8	21	0	13	1	19	0
Total	485	2,664	266	72	62	39	34	33	226	3

C4 The pronoun coreferent with matrix subject is contained in a finite, reportive (subordinate) clause:

- (12) 1. 82. 6 αὐτοὶ ἐκάτεροι ἔφασαν νικᾶν, λέγοντες οἱ; μὲν [ὥς ἔωυτῶν; πλεῦνες περιγεγόνασι. . .]

Each side claimed victory, the ones_i saying [that more of them_i survived. . .]

C5 The pronoun coreferent with matrix subject is contained in an absolute participial clause:

- (13) 1. 19. 2 [μακροτέρης δὲ οἱ; γινομένης τῆς νόσου] πέμπει (ὁ Ἀλυάττης;) ἐς Δελφοῦς θεοπρόπους.

[Since the illness had been troubling him_i a long time.] (Alyattes_i) sent messengers to Delphi.

C6 The pronoun coreferent with matrix subject is contained in a nonabsolute participial clause, either (a) reportive:

- (14) 1. 97. 1 γνοῦς ὁ Δηϊόκης; [ἐς ἔωυτὸν; πᾶν ἀνακείμενον] οὐ . . . κατίζειν ἔτι ἤθελε ἔνθα. . .

Deioces_i, realizing [that everything depended on him_i], no longer desired to preside there. . .

or (b) nonreportive, noncopular:

- (15) 1. 57. 3 οἱ Κρηστωνιῆται οὐδαμοῖσι [τῶν νῦν σφεας; περιοικεόντων] εἰσι δμόγλοσσοι. . .

The inhabitants_i of Creston do not share a language with anyone [dwelling near them_i. . .]

or (c) nonreportive, copular:

- (16) 3. 61. 2 τὸν ὁ Καμβύσης; [ἐόντα ἔωυτοῦ; ἀδελφεόν.] ἀπέκτεινε.

Cambyses_i killed him, [(the latter) being his_i brother.]

C7 The pronoun coreferent with matrix subject is contained in an infinitival clause that is

either (a) reportive:

- (17) 1. 91. 6 ὁ; δὲ ἀκούσας συνέγνω [ἔωυτοῦ; εἶναι τὴν ἁμαρτάδα καὶ οὐ τοῦ θεοῦ.]

Hearing this he_i realized [that the error was his_i and not the god's.]

or (b) nonreportive:

- (18) 5. 103. 2 (οἱ Ἴωνες;) Καρίης τὴν πολλὴν προεκτήσαντο [σφίσι; σύμμαχον εἶναι.]

The Ionians_i won over the greater part of Caria [to be an ally to them_i.]

My inquiry, then, seeks to answer the following questions: (1) Which of the five pronouns occurs in which of these constructions and with what frequency? (2) What does this distribution reveal about pronominal anaphora in its relation to syntactic structure?

III. THE DATA

I first reviewed the text of Herodotus' *Historiae*,¹⁶ which yielded 3,149 simple clauses and 735 complex sentences corresponding to the constructions labeled C1–C7 above. Table 1 presents the distribution of the five pronouns across the ten possible constructions.

The table immediately reveals one fact: the strict complementary distribution between $\acute{\epsilon}\omega\upsilon\tau$ - and the other pronouns in constructions C1, C2, C3, and C5 breaks down in constructions C4, C6, and C7.¹⁷ Had the latter three constructions shown the same pattern as constructions C3 and C5, we could reasonably draw two conclusions: (1) $\acute{\epsilon}\omega\upsilon\tau$ - is an anaphor that must always corefer with another element within its own clause, in the manner of English forms in “-self”:

(19) John_i loves himself_i.

(20) *John_i believes [that Mary loves himself_i].

and (2) the forms $\alpha\upsilon\tau$ -, $\sigma\phi\epsilon$ -, $\mu\upsilon\upsilon$, and $\omicron\iota$, like English “him” or “her,” are pure pronominals, referring only to an element outside the immediate clause:

(21) *John_i loves him_i.

(22) John_i believes [that Mary loves him_i].

Unfortunately, Greek does not exhibit so neat a correspondence between lexical items and the syntactic functions “anaphoric” and “pronominal.” The first obstacles to analyzing the data in such simple terms are the numerous instances of nonclause-bounded $\acute{\epsilon}\omega\upsilon\tau$ -, e.g.:

(23) 8. 28 ταῦτα μὲν νυν τὸν πεζὸν ἐργάσαντο τῶν Θεσσαλῶν οἱ Φωκέες; [πολιορκεόντας $\acute{\epsilon}\omega\upsilon\tau\omicron\upsilon\varsigma$ _i.]
This the Phocians; did to the Thessalian infantry [besieging them_i.]

(24) 7. 209. 5 (ὁ Ξέρξης) ἐπειρώτα [ὅντινα τρόπον τοσοῦτοι ἐόντες τῇ $\acute{\epsilon}\omega\upsilon\tau\omicron\upsilon$ _i στρατιῇ μαχήσονται].
(Xerxes_i) asked [how so small a force could fight against his_i army].

16. Since I have analyzed all pronominal entries in Powell's *Lexicon*, every form that occurs in Hude's text is included in table 1. I have omitted neither bracketed forms nor those for which a plausible variant reading exists, in the hope that their inclusion in the statistical distribution will prove more informative than a priori rejection. Not unexpectedly, there are a number of such forms among the apparent anomalies discussed in section V below. Because my theoretical approach differs from that implied in the *Lexicon*, I have in many instances departed from Powell's analysis of pronominal syntax, especially in so-called “elliptical clauses.”

17. An exception to strict complementarity occurs in construction C1, where we find fifteen examples of an archaic and largely formulaic use of $\sigma\phi\epsilon$ - as a bound anaphor. Though not an unusual feature of Homeric syntax (e.g., *Il.* 4. 535, 2. 366), this usage is for the most part limited in Herodotus to the phrase διδόναι σφίσι λόγον (e.g., 1. 97. 2 συνελέχθησαν οἱ Μῆδοι, ἐς τούτῳ καὶ ἐδίδοναι σφίσι λόγον).

- (25) 9. 102. 2 ἐπεῖτε δὲ . . . ὁ στρατός_i, [ὅπως ἑωυτῶν_i γένηται τὸ ἔργον . . .], . . .
 ἔργου εἶχοντο προθυμότερον. . . .
 When the army_i . . . made a greater effort [in order that the deed would be theirs_i. . . .]
 (26) 1. 86. 5 (ὁ Κροῖσος_i) ἔλεγε δὴ [ὡς ἦλθε ἀρχὴν ὁ Σόλων . . . , καὶ θεσάμενος
 πάντα τὸν ἑωυτοῦ_i δλβον ἀποφλαυρίσειε.]
 (Croesus_i) related [how Solon . . . first arrived and, when he saw all his
 wealth, made light of it.]

We encounter a further problem in constructions C3 and C5, where the forms σφε- and οἱ align themselves with αὐτ- and μιν against ἑωυτ-; unlike the other pronouns, ἑωυτ- never occurs in a nonreportive finite or absolute participial clause coindexed with a heteroclausal element. Consider the following examples:

- (27) 3. 47. 1 (οἱ Λακεδαιμόνιοι_i) Σαμίοισι ἐστρατεύοντο ὡς τείσασθαι βουλόμενοι τοῦ κρητῆρος τῆς ἀρπαγῆς . . . καὶ τοῦ θώρηκος, [τὸν αὐτοῖσι_i Ἀμασις . . . ἐπεμψε δῶρον.]
 (The Spartans_i) made war on the Samians in retaliation for the theft of a drinking bowl . . . and of the corslet [that Amasis . . . gave them_i as a gift.]
 (28) 1. 59. 4 (ὁ Πεισίστρατος_i) ἤλασε ἐς τὴν ἀγορὴν τὸ ζεύγος ὡς ἐκπεφυγὼς τοὺς ἐχθρούς, [οἱ μιν_i ἐλαύνοντα ἐς ἀγρὸν ἠθέλησαν ἀπολέσαι διήθεν.]
 (Pisistratus_i) drove the cart into the market square as if having escaped the enemy [who tried to kill him_i; as he drove out of town.]
 (29) 4. 162. 3 ἡ Φερετίμη_i ἐδέετο στρατιῆς [ἣ κατὰξει σφέας_i ἐς τὴν Κυρήνην.]
 Pheretima_i asked for an army [that would restore them (her_i) to power in Cyrene.]
 (30) 6. 94. 1 ὁ δὲ Πέρσης_i τὸ ἑωυτοῦ ἐποίεε, [ὥστε ἀναμνήσκοντος . . . τοῦ θεράποντος μεμνησθᾶν μιν_i τῶν Ἀθηναίων. . . .]
 The king of Persia_i continued to make his own plans, [as his servant . . . kept reminding him_i to remember the Athenians. . . .]
 (31) 3. 57. 2 (οἱ Σίφνιοι_i) ἐπλούτεον, [ἄτε ἐόντων αὐτοῖσι_i ἐν τῇ νήσῳ χρυσέων καὶ ἀργυρέων μετάλλων. . . .]
 (The Siphnians_i) were wealthy, [since there were gold and silver mines on their_i island. . . .]

In constructions C4, C6, and C7, on the other hand, σφε- and οἱ align with ἑωυτ- against αὐτ- and μιν: αὐτ- and μιν very seldom corefer with a heteroclausal element from nonabsolute participial, infinitival, and, especially, reportive finite clauses, whereas instances of such coreference involving ἑωυτ-, σφε-, and οἱ are very frequent, e.g.:

- (32) 8. 54 (ὁ Ξέρξης_i) συγκαλέσας Ἀθηναίων τοὺς φυγάδας, [ἑωυτῷ_i δὲ ἐπομένους,] ἐκέλευε . . . θῦσαι τὰ ἱρά. . . .
 (Xerxes_i) having summoned the Athenian exiles [who were with him_i,] ordered them to offer a sacrifice. . . .
 (33) 3. 22. 2 ὁ βασιλεὺς_i . . . εἶπε [ὡς παρ' ἑωυτοῖσι_i εἰσι ῥωμαλεώτεροι τουτέων πέδαι.]
 The king_i . . . said [that they (he_i) had fetters stronger than those.]
 (34) 3. 27. 3 οἱ δὲ ἔφραζον [ὡς σφι_i θεὸς εἶη φανείς. . . .]
 They_i said [that a god had appeared to them_i. . . .]
 (35) 1. 166. 3 (οἱ Φωκαῖες_i) ἀνέλαβον τὰ τέκνα καὶ τὰς γυναῖκας καὶ τὴν ἄλλην κτῆσιν [ὅσῃν οἶαι τε ἐγίνοντο αἱ νέες σφι_i ἄγειν.]

- (The Phocaeans_i) took aboard their children and women and as much of their property [as their_i ships could carry.]
- (36) 4. 97. 1 Δαρείος ἐκέλευσε τοὺς . . . Ἴωνας . . . [ἔπεσθαι κατ' ἥπειρον ἑωυτῶ_i. . .]
Darius_i ordered the Ionians . . . [to follow him_i on land. . .]
- (37) 6. 139. 3 Ἀθηναῖοι δὲ . . . ἐκέλευον τοὺς Πελασγοὺς [τὴν χώραν σφίσι_i
παραδίδοναι οὕτως ἔχουσιν.]
The Athenians_i . . . ordered the Pelasgians [to surrender their land to them_i in
a similar condition.]
- (38) 6. 129. 2 ὁ Ἱπποκλείδης ἐκέλευσέ [οἱ_i τὸν αὐλητὴν αὐλῆσαι ἐμμέλειαν.]
Hippocleides_i told the flute-player [to play him_i a tune.]

Thus the distribution of the data in table I indicates that between a large number of strictly anaphoric examples of ἑωυτ- and the exclusively pronominal αὐτ- and μιν there is a gray area in which the correlation of ἑωυτ-, σφε-, and οἱ with a specific grammatical function remains unclear. To explain the data I shall turn now to syntactic theory and cross-linguistic comparison.

IV. BINDING THEORY AND LOGOPHORICITY

In using the terms “anaphor” and “pure pronominal” I have already made implicit reference to the theory of government and binding.¹⁸ Fundamental to this theory are the syntactic principles perhaps most succinctly stated in Chomsky's *Concepts and Consequences*:¹⁹

PRINCIPLE A: An anaphor must be bound in its binding category.

PRINCIPLE B: A pronoun must be free in its binding category.

For our purposes an element is “bound” if it is coindexed with an antecedent, “free” if it is not. The most general claim of binding theory is that it is possible to specify a syntactic environment, or binding category, in which anaphors will always be bound and pure (i.e., non-anaphoric) pronouns, always free. To simplify somewhat, the binding category for *x* will be the minimal category (syntactic structure) containing both *x* and a verbal form (finite, participial, or infinitival) with its expressed or implied subject.²⁰ In practice, therefore, the binding category for a pronoun will always be the immediate clause containing it. Though a noun phrase (NP) can theoretically constitute the binding

18. Most extensively presented in Chomsky's *Lectures on Government and Binding*. For an introduction to early work on anaphora that is of special interest to classicists, see A. Bertocchi and C. Casadio, “Conditions on Anaphora: An Analysis of Reflexives in Latin,” in *Papers on Grammar*, vol. 1, ed. G. Calboli (Bologna, 1980), pp. 1-46, and “Anaphoric Relations, Pronouns, and Latin Complementation,” in *Latin Linguistics and Linguistic Theory: Proceedings of the First International Colloquium on Latin Linguistics, Amsterdam, April 1981*, ed. H. Pinkster (Amsterdam, 1983), pp. 27-39.

19. Page 20; for a more detailed account, see id., *Lectures on Government and Binding*, pp. 153-222.

20. Within the scope of this article I can present neither the details nor the constituent concepts of this formulation (e.g., “c-command” or “accessible subject”), for which see Chomsky's *Lectures on Government and Binding*, pp. 218-22. I should point out that whereas in English “each other,” “himself,” etc., are clearly anaphors, while the other pronouns are pure pronominals, for Greek we must consider the categories “anaphor” and “pronominal” independently of given lexical items and ask how Greek correlates these items with the underlying categories.

category for a pronoun if it has what Chomsky calls a "subject of NP" (i.e., an adnominal genitive modifying the head noun), this possibility does not affect my analysis since I do not find in Herodotus sentences such as:

(39) Dave saw [Steve's_i pictures of himself_i]

(40) Dave_i saw [Steve's_j pictures of him_i],

in which either an anaphor is bound within a noun phrase, as in example 39, or a pure pronoun is bound in its clause but free in the noun phrase immediately containing it, as in example 40. The rarity of such constructions in Greek gives the impression that the noun phrase has, at best, very limited potential as a binding category in the language; but this theoretical issue must remain unresolved until a greater body of data is examined. For the present study, therefore, it is safe to regard the binding category of a pronoun as the clause immediately containing it.²¹

Principles A and B predict that in Greek (1) an anaphor will always be coindexed with an element (usually the subject) within its own clause (finite, participial, or infinitival), whereas (2) a pure pronoun will never be coindexed with a tautoclausal element. As we have seen, however, Greek lacks the strict complementarity that would allow us to label lexical items neatly as "anaphoric" or "pronominal." Something in the grammar of Greek interacts with the binding principles to produce the complex surface distribution of pronouns. I submit that this "something" is what linguists, following Claude Hagège, call logophoricity.²²

The work of Hagège, G. Clements, L. Hyman, and B. Comrie on African languages has brought to light this phenomenon that in some languages receives explicit lexical or morphological expression.²³ The occurrence of logophoric pronouns in these languages cannot be explained in syntactic terms (i.e., strictly in terms of phrase-structure within the sentence). Designating the source of reported discourse, such pronouns occur "after verbs reflecting an individual's point of view, feelings, state of knowledge, or awareness, e.g., the verbs 'say,' 'know,' 'see,' 'show,' 'want,' 'fear,' etc."²⁴ In some languages, furthermore, logophoricity seems to extend (not unexpectedly) to clauses of purpose or intent. In Greek this may be the first step toward the grammaticization of the semantic phenomenon, as it is in Ewe and Gokana,²⁵ beginning as

21. The preponderance of the Herodotean data indicates that the binding category is defined identically for anaphors and pure pronouns in Greek; but a subtle change may have taken place in Greek syntax by the first century A.D.: see the cross-linguistic discussion, with examples from the New Testament, in Harbert's "Markedness," pp. 4, 7.

22. "Les pronoms logophoriques," *Bulletin de la Société de Linguistique de Paris* 69 (1974): 287-310.

23. In addition to Hagège, "Les pronoms," see G. Clements, "The Logophoric Pronoun in Ewe: Its Role in Discourse," *JWAL* 10 (1975): 141-77; L. Hyman and B. Comrie, "Logophoric Reference in Gokana," *JALL* 3 (1981): 19-37.

24. Hyman and Comrie, "Logophoric Reference in Gokana," p. 20. I should emphasize that the explicit marking of logophors in Ewe and Gokana allows for the controlled and exact appraisal of a phenomenon that is manifested in Greek in a somewhat more complex manner.

25. Cf. Clements, "The Logophoric Pronoun in Ewe," pp. 154-56, 172; Hyman and Comrie, "Logophoric Reference in Gokana," p. 33. I have therefore included purpose clauses in construction C4 in table 1.

a factor independent of the rules of syntax within the sentence, logophoric marking may have become obligatory for certain syntactic structures (such as purpose clauses) in which it frequently occurs.

Clements offers the following characterization:²⁶

- (i) logophoric pronouns are restricted to *reportive contexts* transmitting the words or thoughts of an individual or individuals other than the speaker or narrator;
- (ii) the antecedent does not occur in the same reportive context as the logophoric pronoun;
- (iii) the antecedent designates the individual or individuals whose words or thoughts are transmitted in the reportive context in which the logophoric pronoun occurs.

The following are a few examples from West-African Ewe in which logophoricity, a discourse-factor, overrides the syntax:²⁷

- (41) Tsali gblɔ na-e be ye-e dyi yɛ gake yɛ-kpe dyi
say to-him that he beget LOG but LOG-be victor
Tsali_i told him_j (his father) that he_j begot him_i but he_j was the victor.
- (42) Kofi gblɔ na wo be yɛ-a-dyi ga-a na wo
say to them that LOG-T-see money-D for them
Kofi_i told them that he_j would seek the money for them.

As J. Maling demonstrated for Icelandic, Hyman and Comrie for Gokana, and Clements for Greek and Latin, a language can be sensitive to logophoricity without having a lexically distinct set of logophoric pronouns.²⁸ We shall see that the attempt to characterize the syntax of the pronouns in Herodotus is advanced considerably by including the notion “logophoric” along with “anaphoric” and “pronominal” in the analysis.

The gray area mentioned above (constructions C4, C6, and C7), in which the complementarity between anaphoric $\acute{\epsilon}\omega\upsilon\tau$ - (C1) and the other pronominal forms (C2, C3, and C5) breaks down, consists almost entirely of reportive sentences—that is, of logophoric contexts. The many instances of nonclause-bounded $\acute{\epsilon}\omega\upsilon\tau$ -, $\sigma\phi\epsilon$ -, and $\omicron\iota$ in construction C4, which is exclusively reportive, as well as those in constructions C6a and C7a, suggest that Greek uses these forms in such contexts to mark logophoricity. The forms $\alpha\upsilon\tau$ - and $\mu\iota\nu$, on the other hand, which never function as logophors (much less as anaphors), are clearly pure pronouns and occur only where anaphors and logophors cannot, that is, in constructions C2, C3, and C5.²⁹ Whereas $\acute{\epsilon}\omega\upsilon\tau$ - doubles as anaphor and logophor, the forms $\sigma\phi\epsilon$ - and $\omicron\iota$ appear to double as logophors and

26. “The Logophoric Pronoun in Ewe,” pp. 171–72.

27. *Ibid.*, pp. 154, 152.

28. J. Maling, “Non Clause-Bounded Reflexives in Icelandic,” in *Papers from the Sixth Scandinavian Conference on Linguistics*, ed. T. Fretheim and L. Hellan (Røros, 1982), pp. 90–106; Hyman and Comrie, “Logophoric Reference in Gokana,” pp. 19–20; Clements, “The Logophoric Pronoun in Ewe,” pp. 143–47. Clements, who was only tangentially interested in Latin and Greek, tentatively concluded that the logophoric and reflexive pronouns in these languages are homophonous (*ibid.*, p. 147). As we shall see, the situation in Greek is more complex.

29. For the residual cases in constructions C4, C6, and C7, see the discussion in section V below.

pure pronouns. First, save for a few fixed, formulaic phrases,³⁰ σφε- and οἱ are never anaphors. Second, the environments C3 and C5, which filter out both anaphors and logophors (see n. 32 below), exhibit numerous instances of σφε- and οἱ alongside αὐτ- and μιν. This filtering is especially clear in absolute constructions (C5), which strictly exclude logophors, probably because of the stark syntactic autonomy of absolute participial clauses.³¹ Consider the following examples:

- (43) Herodotus 6. 137. 4 (Ἀθηναῖοι_i λέγουσι) ἑωυτούς_i δὲ γενέσθαι τοσοῦτω
ἐκείνων ἀνδρας ἀμείνονας, [ὅσῳ παρεὼν αὐτοῖσι_i ἀποκτείνει τοὺς Πελασ-
γούς,] . . . οὐκ ἐθελῆσαι.
(The Athenians_i point out) how superior they_i were to those men, in as much
as [when they_i might have killed the Pelasgians,] . . . they_i chose not to.
- (44) 3. 27. 2 ὁ Καμβύσης_i . . . εἶρετο ὃ τι [πρότερον . . . ἐόντος αὐτοῦ_i ἐν Μέμφι]
ἐποίηεν τοιοῦτον οὐδὲν Αἰγύπτιοι. . . .
Cambyses_i . . . asked why [on his_i previous visit to Memphis] the Egyptians
had done nothing of the kind. . . .

Were the bracketed phrases in these examples nonabsolute, infinitival, or finite subordinate clauses, the underlined pronouns would doubtless have been marked as logophoric (i.e., ἑωυτ-, σφε-, or οἱ). Note especially how in example 43 the logophor ἑωυτούς occurs in the reported speech outside the absolute clause, whereas the pronoun inside the absolute clause (αὐτοῖσι) fails to be marked as logophoric. The logophoric category in Greek is thus represented both by ἑωυτ-, which was borrowed from the anaphoric category, and by σφε- and οἱ, which were borrowed from the pure pronominal category. This lack of one-to-one correspondence in Greek between lexical item and grammatical function results in the complex surface distribution charted in table 1. I shall suggest some historical reasons for the asymmetry of the Herodotean pronominal inventory in the concluding section of this article.

V. RESIDUAL PROBLEMS

Including the notion of logophoricity in an account of anaphora in Greek greatly enhances the account's adequacy. To be sure, some unexplained exceptions remain. The apparently anaphoric instances of σφε- are a vestige of earlier usage (see n. 18 above) and are largely limited to the formula διδόναι σφίσι λόγον. The nineteen instances of αὐτ- and eight of μιν in construction C7a are more difficult.³²

30. Especially διδόναι σφίσι λόγον; see n. 17 above.

31. Although logophoric marking extends into clauses at any depth of embedding (see example 26 above and Clements, "The Logophoric Pronoun in Ewe," p. 154), absolute clauses appear to exclude logophors. Perhaps a pronoun in such a clause is felt to be too distant, syntactically, from a heteroclausal antecedent for logophoric marking, since an absolute clause in its independence does not constitute the syntactic complement of any other category. This aspect of discourse-syntax interaction needs further exploration.

32. This irregularity is characterized by an interesting fact: the great majority of instances in which a pronoun fails to be marked as logophoric involve a direct-object accusative. The resistance of accusative pronouns to logophoric marking seems to imply a hierarchy among the cases; i.e., it may be

These examples, together with eight instances of αὐτ- and three of μιν in construction C4 and two instances of μιν in construction C6a, do not exhibit logophoric marking where such might be expected. Of special interest are the twenty-four instances of ἔωυτ- in construction C6c. Unlike the eight anomalous examples of nonclause-bounded ἔωυτ- in construction C6b, these sentences involve a copular participial phrase: a clause containing either ἐόντ- or γινόμεν- as the head of its verb-phrase. The fact that the participle in these examples could be deleted suggests that copular participial clauses are uniquely transparent to binding; that is, such clauses fail to constitute a binding category and allow a pronoun within the clause to be coindexed with a heteroclausal element. Consider the following sentences:

- (45) Herodotus 1. 75. Ἰ τοῦτον δὴ ὦν τὸν Ἀστυάγεα Κύρος_i [ἐόντα ἔωυτοῦ_i μητροπάτορα] καταστρεψάμενος ἔσχε. . . .
Cyrus_i then subjugated and held captive this Astyages, [his_i maternal grandfather. . . .]
- (46) 2. 162. 6 ἰδόμενοι δ' οἱ λοιποὶ τῶν Αἰγυπτίων . . . ἄνδρα [τὸν δοκιμώτατον ἔωυτῶν_i] οὕτω αἰσχροῶς λύμη διακείμενον, . . . ἐδίδοσαν σφέας αὐτοὺς Ἀμάσι.
The rest of the Egyptians_i . . . , seeing a man [who was the most distinguished of them_i] so outrageously treated, . . . surrendered to Amasis.

Replacement of ἐόντα by the definite article in example 45 would seem syntactically inconsequential, at least as far as the bracketed clause's failure to constitute a binding category is concerned.³³ Similarly, the conversion of the bracketed clause in 46 into a copular participial phrase would not seem to affect its failure to be a binding category. In other words, the anaphoric binding of ἔωυτ- that is characteristic of simple clauses seems to be extended to quasi-simple sentences involving a copular participial clause. Thus, sentences in Herodotus that remain unaccounted for (eleven in construction C4, ten in construction C6, and twenty-seven in C7) constitute only 1.2 percent of the pronominal constructions in the *Historiae*. This residue doubtless reflects our still-imperfect understanding of copular participial and infinitival structures. Finally, textual corruption may be to blame in some instances.

VI. ANAPHORA IN GREEK: A SUMMARY AND DIACHRONIC ANALYSIS

The Greek of Herodotus' *Historiae* marks three grammatical functions with the pronominal forms ἔωυτ-, σφε-, μιν, αὐτ-, and οἱ: (1) anaphoric, (2) pure pronominal, and (3) logophoric. The syntactic component of the grammar (binding principles A and B) determines the distribution of the first two categories: within a certain minimal syntactic structure, or

possible to order the cases with respect to their admission of logophoric marking. See the discussion of similar hierarchies in Hyman and Comrie, "Logophoric Reference in Gokana," p. 33.

33. Since the suppression of copular participles is felt to be quite distinct from ellipsis, copular participial clauses are in some ways uniquely close to bare noun phrases—though certainly not identical to them (I am grateful to the Editor for bringing this last qualification to my attention). The failure of copular participial clauses to constitute a binding category needs to be investigated; see n. 15 above.

TABLE 2
DISTRIBUTION OF PRONOMINAL FORMS ACCORDING TO CATEGORY^a

	SYNTAX		DISCOURSE
	PRONOMINAL	ANAPHORIC	LOGOPHORIC
Stage 1	αὐτ-, ^b μιν σφε-, οἱ	σφε-, οἱ	σφε-, οἱ
Stage 2	αὐτ-, μιν σφε-, οἱ	ἐαυτ-	ἐαυτ-, σφε-, οἱ
Stage 3	αὐτ-	ἐαυτ-	ἐαυτ-, (σφε-, οἱ) ^c
Stage 4	αὐτ-	ἐαυτ-	ἐαυτ-

^a The forms used in the table do not reproduce dialectal variations in orthography.

^b Nonintensive.

^c Use of these forms marginal.

“binding category” (usually a clause), an anaphor must be coindexed with an antecedent, whereas a pure pronoun must not be so coindexed. The third category, logophoricity, is a discourse-factor in which pronouns referring from a subordinate reportive clause to the source of the reported words or thoughts are specially marked in apparent violation of syntactic rules. The essentials of anaphora in Greek may be set forth as follows:

RULE 1: ἐαυτ- is a bound anaphor and must always be coindexed with an element, normally the subject, within its own immediate clause.

RULE 2: αὐτ-, σφε-, μιν, and οἱ are pure pronominals and are always free (i.e., not coindexed with another element) within their own immediate clause.

RULE 3: In reportive contexts that transmit the words or thoughts of an individual other than the speaker or narrator, rules 1 and 2 are overridden, and pronouns referring to the source of the reported material are marked as logophoric by ἐαυτ-, σφε-, or οἱ.

Like many apparent irregularities in language, the complexity of the Herodotean pronominal inventory reflects the interaction of several diachronic factors. In table 2 I suggest one course that the evolution of the Greek pronominal inventory may have followed.

The pronouns σφε- and οἱ (οὖ, ἐ) pattern symmetrically vis-à-vis grammatical function in Homeric Greek (stage 1), where these forms are used as pure pronouns, anaphors, and logophors.³⁴ At this stage, as in later stages, the forms αὐτ- and μιν are pure pronominals.³⁵ The subsequent developments in Greek through the Hellenistic era to the κοινή

34. As pronominal, e.g., *Il.* 1. 8 τίς τ' ἄρ σφωε θεῶν ἔριδι ξυνέηκε μάχεσθαι; (“Who then of the gods brought them together to fight?”); anaphoric, e.g., *Il.* 4. 534–35 οἱ; ἐ μέγαν περ ἔδοντα . . . / ὥσαν ἀπὸ σφειῶν_i (“Though he was great, they_i drove him back from themselves_i”); logophoric, e.g., *Il.* 9. 305–6 (“Ἐκτωρ_i) οὐ τινά φησιν [ἴμοιον / οἱ_i ἔμμεναι Δαναῶν] (“(Hector_i) claims [that no one of the Danaans is equal to him_i]”).

35. E.g., *Il.* 5. 844–45 Ἀθήνη_i / δδν' Αἰδὸς κυνέην, [μὴ μιν_i ἴδοι δρβριμος Ἄρης] (“Athena, put on Hades' cap, [lest strong Ares see her_i]”); 7. 204 εἰ δὲ καὶ Ἐκτορά_i περ φιλέεις [καὶ κήδεαι αὐτοῦ_i] . . .

show that the new composite form $\xi\alpha\upsilon\tau$ - assumed both the anaphoric and the logophoric function of $\sigma\phi\epsilon$ - and $\omicron\iota$.³⁶ In the Greek of Herodotus (stage 2) the newer form had only partially displaced the older pronouns by taking over the anaphoric function. The synchronic result is that the pattern of $\sigma\phi\epsilon$ - and $\omicron\iota$ is split: these forms appear either as pure pronouns or as logophors, but no longer as anaphors. At this stage the form $\xi\alpha\upsilon\tau$ - (Ionic $\xi\omega\upsilon\tau$ -) was used, for the while, as a logophor alongside $\sigma\phi\epsilon$ - and $\omicron\iota$. Gradually, through the classical and early Hellenistic periods, $\sigma\phi\epsilon$ - and $\omicron\iota$ were fully replaced in both anaphoric and logophoric function by $\xi\alpha\upsilon\tau$ - (stage 3). The pronominal inventory of the κοινή (stage 4) exhibits a restored symmetry in which $\alpha\upsilon\tau$ - is the pure pronominal and $\xi\alpha\upsilon\tau$ - the anaphor and logophor.³⁷ The disruption caused by the new composite anaphor and logophor $\xi\alpha\upsilon\tau$ - is responsible for the asymmetry and complexity of the Greek pronominal inventory that Shilleto characterized as “a labyrinth without a clue.” It is my hope that we have at least caught one end of a guiding thread.

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(“Even if you love Hector, [and care for him] . . .”). See Dyroff, *Geschichte*, 1:11–51; A. Jannaris, *Historical Greek Grammar* (London, 1897), pp. 156–62; Schwyzer, *Griechische Grammatik*, 2:192–95; P. Chantraine, *Grammaire homérique*, vol. 2: *Syntaxe* (Paris, 1953), pp. 153–58.

36. “In diesen Formen erhielt die Sprache eine neue, eindeutige und eindruckliche Form des Reflexivs”: Schwyzer, *Griechische Grammatik*, 2:193.

37. Cf. Clements, “The Logophoric Pronoun in Ewe,” p. 147, and Goodall, “The Reflexive Pronoun,” pp. 42, 56, n. 3.