QUALIFICATION OF NUMERALS IN THE *CONSTITUTION OF ATHENS*

CATHERINE REID RUBINCAM

IN HIS ARTICLE, "Peisistratid Chronology Again,"[1] P. J. Rhodes has recently taken up once more the vexed question of the dates of the Peisistratid tyranny at Athens. Given the extensive scholarly controversy on this matter,[2] a totally new approach can scarcely be expected, and Rhodes' article puts together, inevitably, a new composite of largely familiar elements, whose most distinctive feature is perhaps the emphasis placed on certain aspects of the interpretation of numerals. He criticizes some of his predecessors in the field for too readily assuming that ancient authors are likely to have confused inclusive and exclusive numerical reckoning. In fact, he argues, ordinal numerals were normally used by Greek authors with unambiguous precision, by a reckoning that included both terminal points of the period specified, whereas cardinal numerals, in the absence of other information, were inherently ambiguous, as either one or both *termini* of a period so reckoned might be counted.[3]

I shall not address myself directly to the large questions of what are the correct dates for Peisistratos' tyranny, and what chronological schemes were advanced, and on what basis, by *A. P.* and Herodotos. My purpose is rather to draw attention to a factor which Rhodes does not discuss, but which bears significantly on his argument regarding Greek principles of numerical reckoning. *A. P.*, like other Greek writers on historical subjects, sometimes adds qualifying expressions to his numbers, which he must have intended to influence the reader's interpretation of them. Three of the figures in *A. P.*'s Peisistratid chronology are qualified by μάλιστα (viz., ἔτει μάλιστα ἑβδόμῳ, 15.1; ἔτει . . . τετάρτῳ μάλιστα, 19.2; ἔτη μάλιστα ἐπτακαίδεκα, 19.6), and two of these are ordinal numerals. It is usually assumed, though seldom explicitly stated, that the function of μάλιστα (or other similar qualifying words, such as περί, ὡς, etc.) is to indicate that the number qualified is not an exact figure, but only some

---

[2]See the works cited by Rhodes 219 note 1.
[3]Rhodes 220–221; cf. Cadoux 83, and Sumner 42 note 2.

293

kind of approximation.[4] If this is so, and if Rhodes is right in maintaining that Greek historians normally used ordinal numerals with unambiguous precision, it is surely odd that two of the ordinal numerals found in *A. P.*'s account of the Peisistratids are qualified by μάλιστα. For the presence of this kind of qualification here suggests that the writer felt some degree of imprecision or uncertainty regarding these figures. At the least it would seem that this factor somewhat complicates the attempt to lay down absolute principles for the interpretation of ordinal numerals in Greek historiography.

Having made this negative point, I wish to discuss how *A. P.* uses cardinal and ordinal numerals and qualification in referring to time, and to draw some conclusions from this general discussion regarding the figures given for the reigns of Peisistratos and his sons.[5] Tables A and B (below, 295 and 297) list all the figures applied to intervals of time in *A. P.* 1–41, with an indication for each of the type of reckoning employed (where this can be determined with reasonable certainty), whether the figure has an archon's name attached to it, and whether it is qualified. Altogether there are 15 cardinal numbers (Table A) and 22 ordinals (Table B), for a total of 37.

Of the 15 cardinals, four refer to terms of office of archons (at 13.1, 13.2, and 33.1 [second and third figures only]), and hence to numbers of whole archon-years or portions thereof, so that one encounters some difficulty in deciding whether the reckoning is better described as "inclusive" or as "exclusive." The cause of this difficulty can be seen in Rhodes' definition of exclusive reckoning: "the year in which a state of affairs began is included in the reckoning but the year in which it ended is not" (221). This works satisfactorily when one is calculating the interval between two events both of which fell at some point in the course of an archon-year; but if one is talking about an archon's tenure of office, which began and ended precisely at the boundary between two archon-years, then the "state of affairs" of Rhodes' definition is co-terminous with the unit of chronology in which its duration is being measured. Thus whereas normally year one of a period between two events will be in real terms something less than a full solar year, year one in a series of archonships will be a full year, like the succeeding years (and similarly with the last

---

[4]This interpretation of μάλιστα is most explicitly stated and most absolutely insisted upon by Hammond, 389–390 and 385 note 1.

[5]I include in this survey only the narrative section of *A. P.*, viz. chapters 1–41; the specifications of time contained in the latter part of the work (chapters 42–69), which describes the state of the constitution in the author's own lifetime, are of an essentially different kind. Of the time figures found in *A. P.* 1–41 I exclude as irrelevant to the present enquiry two that refer to periods in the future (7.2 and 11.1), and three dates given according to the official calendar reckoning (32.1–2).

TABLE A

CARDINAL NUMBERS APPLIED TO TIME IN *A. P.* 1-41

Reference	Text of passage	Type of reckoning	Archon's name	Qualification
13.1	Σόλωνος δ' ἀποδημήσαντος, ἔτι τῆς πόλεως τεταραγμένης, <u>ἐπὶ μὲν</u> <u>ἔτη τέτταρα</u> διῆγον ἐν ἡσυχίᾳ	full archon-years	—	—
13.2	Δαμασίας . . . <u>ἔτη δύο καὶ δύο μῆνας</u> ἦρξεν.	full archon-years	—	—
17.1	Πεισίστρατος . . . ἀπέθανε νοσήσας ἐπὶ Φιλόνεω ἄρχοντος, ἀφ' οὗ μὲν κατέστη τὸ πρῶτον τύραννος <u>ἔτη τριάκοντα καὶ τρία</u> βιώσας . . .	exclusive	Philoneos	—
17.1	. . . ἃ δ' ἐν τῇ ἀρχῇ διέμεινεν <u>ἑνὸς δέοντα εἴκοσι·</u> ἔφευγε γὰρ τὰ λοιπά.	exclusive	Philoneos	—
19.6	. . . καὶ τὰ ἑαυτῶν ἐν <u>πένθ' ἡμέραις</u> ἐκκομισάμενοι [sc., ἐκ τῆς ἀκροπόλεως]	problematic	—	—
19.6	παρέδωκαν τὴν ἀκρόπολιν [sc., οἱ Πεισιστρατίδαι] τοῖς Ἀθηναίοις ἐπὶ Ἁρπακτίδου ἄρχοντος, κατασχόντες τὴν τυραννίδα μετὰ τὴν τοῦ πατρὸς τελευτὴν <u>ἔτη μάλιστα ἑπτακαίδεκα</u>, . . .	exclusive	Harpaktides	μάλιστα
19.6	. . . τὰ δὲ σύμπαντα σὺν οἷς ὁ πατὴρ ἦρξεν <u>ἑνὸς δεῖ πεντήκοντα</u>.	problematic	Harpaktides	—
20.3	ὁ δὲ δῆμος <u>δύο μὲν ἡμέρας</u> προκαθεζόμενος ἐπολιόρκει	period of days; complementary ordinal	—	—

TABLE A (Concluded)

Reference	Text of passage	Type of reckoning	Archon's name	Qualification
22.3	διαλιπόντες ἔτη δύο μετὰ τὴν νίκην [sc., τὴν ἐν Μαραθῶνι] ... τότε πρῶτον ἐχρήσαντο τῷ νόμῳ τῷ περὶ τὸν ὀστρακισμόν	exclusive	—	—
22.6	ἐπὶ μὲν οὖν ἔτη γ̄ τοὺς τῶν τυράννων φίλους ὠστράκιζον	recurrent events; complementary ordinal	—	—
25.1	ἔτη δὲ ἑπτακαίδεκα μάλιστα μετὰ τὰ Μηδικὰ διέμεινεν ἡ πολιτεία προεστώτων τῶν Ἀρεοπαγιτῶν ..., ἔπειτα τῆς βουλῆς ἐπὶ Κόνωνος ἄρχοντος ἅπαντα περιείλετο τὰ ἐπίθετα [sc., Ἐφιάλτης].	exclusive	Konon	μάλιστα
32.2	ἡ μὲν οὖν ὀλιγαρχία τούτου κατέστη τὸν τρόπον ἐπὶ Καλλίου μὲν ἄρχοντος, ἔτεσιν δ' ὕστερον τῆς τῶν τυράννων ἐκβολῆς μάλιστα ἑκατόν	inclusive	Kallias	μάλιστα
33.1	μῆνας μὲν οὖν ἴσως τέτταρας διέμεινεν ἡ τῶν τετρακοσίων πολιτεία, ...	inclusive	—	ἴσως
33.1	... καὶ ἦρξεν ἐξ αὐτῶν Μνασίλοχος δίμηνον ἐπὶ Θεοπόμπου ἄρχοντος ...	full months	Mnasilochos/ Theopompos	—
33.1	... ⟨δς⟩ [sc., Θεόπομπος] ἦρξε τοὺς ἐπιλοίπους δέκα μῆνας.	full months	Theopompos	—

TABLE B

Ordinal numbers applied to time in *A. P.* 1–41

Reference	Text of passage	Type of reckoning	Archon's name	Qualification
13.1	. . . τῷ δὲ πέμπτῳ [sc., ἔτει] μετὰ τὴν Σόλωνος ἀρχὴν οὐ κατέστησαν ἄρχοντα διὰ τὴν στάσιν, . . .	full archon-years; complementary cardinal	ἀναρχία	—
13.1	. . . καὶ πάλιν ἔτει πέμπτῳ διὰ τὴν αὐτὴν αἰτίαν ἀναρχίαν ἐποίησαν.	full archon-years	ἀναρχία	—
14.1	. . . κατέσχε τὴν ἀκρόπολιν [sc., Πεισίστρατος] ἔτει δευτέρῳ καὶ τριακοστῷ μετὰ τὴν τῶν νόμων θέσιν ἐπὶ Κομέου ἄρχοντος.	problematic	Komeas	—
14.3	. . . ὁμοφρονήσαντες οἱ περὶ τὸν Μεγακλέα καὶ τὸν Λυκοῦργον ἐξέβαλον αὐτὸν [sc., Πεισίστρατον] ἕκτῳ ἔτει μετὰ τὴν πρώτην κατάστασιν ἐφ' Ἡγησίου ἄρχοντος.	problematic	Hegesias	—
14.4	ἔτει δὲ δωδεκάτῳ μετὰ ταῦτα . . . ὁ Μεγακλῆς . . . κατήγαγεν αὐτὸν [sc., Πεισίστρατον].	problematic	—	—
15.1	μετὰ δὲ ταῦτα ὡς ἐξέπεσε τὸ δεύτερον [sc., Πεισίστρατος] ἔτει μάλιστα ἑβδόμῳ μετὰ τὴν κάθοδον	problematic	—	μάλιστα
15.2	. . . ἐλθὼν εἰς Ἐρετρίαν [sc., Πεισίστρατος] ἐνδεκάτῳ πάλιν ἔτει τό⟨τε⟩ πρῶτον ἀνασῴσασθαι βίᾳ τὴν ἀρχὴν ἐπεχείρει	problematic	—	—
19.2	ἔτει δὲ τετάρτῳ μάλιστα μετὰ τὸν Ἱππάρχου θάνατον . . . τὴν Μουνυχίαν ἐπεχείρησε τειχίζειν [sc., Ἱππίας].	problematic	—	μάλιστα
20.3	τῇ δὲ τρίτῃ [sc., ἡμέρᾳ] Κλεομένην μὲν . . . ἀφεῖσαν [sc., Ἀθηναῖοι]	period of days; complementary cardinal	—	—
21.2	. . . ἔτει τετάρτῳ μετὰ τὴν τῶν τυράννων κατάλυσιν ἐπὶ Ἰσαγόρου ἄρχοντος, πρῶτον μὲν οὖν συνένειμε πάντας εἰς δέκα φυλάς [sc., Κλεισθένης]	inclusive	Isagoras	—
22.2	πρῶτον μὲν οὖν ἔτει πέμπτῳ μετὰ ταύτην τὴν κατάστασιν ἐφ' Ἑρμοκρέοντος ἄρχοντος τῇ βουλῇ τοῖς πεντακοσίοις τὸν ὅρκον ἐποίησαν. . . .	problematic	Hermokreon	—

TABLE B (Continued)

Reference	Text of passage	Type of reckoning	Archon's name	Qualification
22.3	ἔτει δὲ μετὰ ταῦτα δωδεκάτῳ νικήσαντες τὴν ἐν Μαραθῶνι μάχην ἐπὶ Φαινίππου ἄρχοντος	inclusive	Phainippos	—
22.6	μετὰ δὲ ταῦτα τῷ τετάρτῳ ἔτει καὶ τῶν ἄλλων εἴ τις δοκοίη μείζων εἶναι μεθίσταντο.	inclusive; complementary cardinal	—	—
22.7	ἔτει δὲ τρίτῳ μετὰ ταῦτα Νικοδήμου ἄρχοντος, ὡς ἐφάνη τὰ μέταλλα τὰ ἐν Μαρωνείᾳ . . . , συμβουλεύοντος τινῶν τῷ δήμῳ διανείμασθαι τὸ ἀργύριον, Θεμιστοκλῆς ἐκώλυσεν	inclusive	Nikodemos	—
22.8	τετάρτῳ δ' ἔτει κατεδέξαντο πάντας τοὺς ὠστρακισμένους ἄρχοντος Ὑψιχίδου	problematic	Hypsichides	—
23.5	διὸ καὶ τοὺς φόρους οὗτος [sc., 'Αριστείδης] ἦν ὁ τάξας ταῖς πόλεσιν τοὺς πρώτους ἔτει τρίτῳ μετὰ τὴν ἐν Σαλαμῖνι μάχην ἐπὶ Τιμοσθένους ἄρχοντος	inclusive	Timosthenes	—
26.2	. . . ἀλλ' ἕκτῳ ἔτει μετὰ τὸν 'Εφιάλτου θάνατον ἔγνωσαν καὶ ἐκ ζευγιτῶν προκρίνεσθαι τοὺς κληρωσομένους τῶν ἐννέα ἀρχόντων, καὶ πρῶτος ἦρξεν ἐξ αὐτῶν Μνησιθείδης.	inclusive	Mnesitheides	—
26.3	ἔτει δὲ πέμπτῳ μετὰ ταῦτα ἐπὶ Λυσικράτους ἄρχοντος οἱ τριάκοντα δικασταὶ κατέστησαν πάλιν οἱ καλούμενοι κατὰ δήμους.	inclusive	Lysikrates	—
26.4	καὶ τρίτῳ μετὰ τοῦτον [sc., ἔτει] ἐπὶ 'Αντιδότου . . . ἔγνωσαν μὴ μετέχειν τῆς πόλεως ὃς ἂν μὴ ἐξ ἀμφοῖν ἀστοῖν ᾖ γεγονώς.	inclusive	Antidotos	—
27.2	μετὰ δὲ τὴν ἐν Σαλαμῖνι ναυμαχίαν ἑνὸς δεῖ πεντηκοστῷ ἔτει ἐπὶ Πυθοδώρου ἄρχοντος ὁ πρὸς Πελοποννησίους ἐνέστη πόλεμος.	inclusive	Pythodoros	—
34.1	ἔτει δ' ἑβδόμῳ μετὰ τὴν τῶν τετρακοσίων κατάλυσιν, ἐπὶ Καλλίου τοῦ 'Αγγελῆθεν ἄρχοντος γενομένης τῆς ἐν 'Αργινούσαις ναυμαχίας, πρῶτον μὲν τοὺς δέκα στρατηγοὺς τοὺς τῇ ναυμαχίᾳ νικῶντας συνέβη κριθῆναι μιᾷ χειροτονίᾳ πάντας. . . .	problematic	Kallias Angelethen	—
40.4	διελύθησαν δὲ καὶ πρὸς τοὺς ἐν 'Ελευσῖνι [κατο]ικήσαντας ἔτει τρίτῳ μετὰ τὴν ἐξοίκησιν ἐπὶ Ξεναινέτου ἄρχοντος.	inclusive	Xenainetos	—

year in a series counted inclusively).⁶ A similar difficulty affects statements like that at 22.6, where what is being described is not some state of affairs that continued for several years, but rather the repeated occurrence in each of a sequence of archonships of a single event (in this case an ostracism). These five figures must therefore be segregated from the main group of cardinal numerals, which now includes ten figures. Of these, four involve exclusive reckoning (viz., 19.6 [second figure], 20.3,

⁶The first figure in 33.1, which is qualified, is discussed below, 301. The distinction made here between reckoning the interval between two events each located at some point during an archon-year, and reckoning the interval between two archonships is crucial, I believe, to the proper understanding of the figures in 13.1. The problem there is, as Cadoux expresses it (93–94; cf. also Sumner 50–51), that there is an "apparent contradiction between the words ἐπὶ μὲν τέτταρα ἔτη and τῷ δὲ πέμπτῳ", because the first year of the ordinal series ought, by strict inclusive reckoning, to be that of Solon's archonship, and yet the narrative clearly implies that the four cardinal years of ἡσυχία which preceded the first ἀναρχία began only in the year after Solon's archonship. It seems to me quite natural, however, that *A. P.* should have abandoned his strictly inclusive reckoning with ordinals in such a case, where the "events" he was dating were actual archonships. If he was counting the names of the archons who held office ἐν ἡσυχίᾳ, he would naturally begin not with Solon, but with his successor, and his ordinal reckoning also would start from that year. I therefore find the chronology proposed for the post-Solonian period by Bauer, Wilamowitz, Busolt, and de Sanctis (viz., Solon—594/3, first ἀναρχία—589/8, second ἀναρχία—584/3, Damasias—583/2, 582/1, and two months of 581/0; for the references to these scholars' arguments, see Cadoux 93 note 110) much more convincing than that advocated by Cadoux (viz., Solon—594/3, first ἀναρχία—590/89, second ἀναρχία—586/5, Damasias—582/1, 581/0, and two months of 580/79; Cadoux, 103, conveniently tabulates the views of his major predecessors, and notes his adherence to the scheme of Schröder, Jacoby, and Hammond, whose works he cites, 93 note 110). Sumner (49–54), writing later than Cadoux and therefore not included in his conspectus of opinions, thinks 592/1 rather than 594/3 was *A. P.*'s date for Solon's archonship, and then counts on, by similar intervals to those of the Bauer-Wilamowitz scheme, to ἀναρχίαι in 587/6 and 582/1. His determination to find a compromise between the implications of ἐπὶ μὲν τέτταρα ἔτη and τῷ δὲ πέμπτῳ, while insisting on a strictly inclusive interpretation of the ordinal, led him to suggest that when *A. P.* wrote οὐ κατέστησαν ἄρχοντα and ἀναρχίαν ἐποίησαν he meant to refer literally to the abortive elections that preceded the years in which no archon held office. Thus he made the πέμπτον ἔτος of the first period fall in 588/7 (i.e., the fifth year counted inclusively from Solon, in 592/1), but the ensuing ἀναρχία, which was also the first year of the second five-year period, fall in 587/6. This is very ingenious, but it requires the assumption that *A. P.* cared to discriminate between the year of a man's election and that in which he held office; and this he can be shown not to have done in another passage where the context might well have suggested a need for such discrimination. At 26.2 *A. P.* reports that ἕκτῳ ἔτει μετὰ τὸν 'Εφιάλτου θάνατον ἔγνωσαν [sc., οἱ 'Αθηναῖοι] καὶ ἐκ ζευγιτῶν προκρίνεσθαι τοὺς κληρωσομένους τῶν ἐννέα ἀρχόντων, καὶ πρῶτος ἦρξεν ἐξ αὐτῶν Μνησιθείδης. Mnesitheides was archon in 457/6, and was therefore elected in the previous year, 458/7. The year of Ephialtes' death is usually said, on the basis of this passage, to be 462/1, and it cannot be any earlier, since at 25.2 *A. P.* dated to that year (archonship of Konon) Ephialtes' removal of powers from the Areopagos. On the usual interpretation of this passage, then, *A. P.* counted six years

22.3, and 25.1);[7] and two of these are qualified (19.6 and 25.1). Two are reckoned inclusively, and qualified (32.2 and 33.1 [first figure only]; the argument for counting this latter figure as inclusive is set out below, 301 f). Four present problems of various kinds. The first figure at 19.6 specifies the number of days within which the Peisistratids evacuated the acropolis after coming to terms with the Athenians. No one can know how these five days were counted. The two figures in 17.1 (the interval between Peisistratos' first seizure of power and his death, and the length of time for which he held power) and the third figure in 19.6 (the total of years for which Peisistratos and Hippias together ruled) are subject to different interpretations in accordance with different reconstructions of Peisistratid chronology.[8] Archon names are added to the dates in seven of the ten cases (two of the three exceptions being 19.6 [first figure] and 20.3, which involve periods of days).[9]

A similar summary analysis of the 22 ordinal numerals (Table B) yields the following results. More of *A. P.*'s ordinals than of his cardinals have been the subject of controversy; and figures whose correctness or interpretation is seriously controversial cannot usefully be included in the present analysis. We must set aside on this ground six figures relating to the Peisistratid tyranny (14.1, 14.3, 14.4, 15.1, 15.2, and 19.2)[10] and five other figures (13.1 [two figures], 22.2, 22.8, and 34.1).[11] This leaves

---

inclusively from Konon to Mnesitheides (462/1 to 457/6), and then dated to the latter year the decision to open the archonship to Zeugitai, which must have been taken in the previous year, or Mnesitheides the Zeugite could not have been legally elected. (C. Hignett [*A History of the Athenian Constitution*, Oxford 1952, 225 and note 2] noted this inconsistency; he qualified with a "perhaps" his statement that the right of candidature for the archonship was first extended to the Zeugitai in 457/6.) If *A. P.* so blatantly ignored in this case the time interval between election to and tenure of the archonship, it is hard to believe that he paid attention to this at 13.1.

[7]At 20.3 an ordinal numeral follows the cardinal immediately, to designate the unit of time in which the state of affairs (viz., the siege of the acropolis) came to an end. This is a case like that outlined by Rhodes, 220–221, where the coupling of ordinal with cardinal shows that the latter is used exclusively.

[8]See Cadoux 104–106 on the impossibility of securely dating Komeas' archonship independently of the first figure at *A. P.* 17.1. Rhodes, 222–224, discusses the problems involved in the second figure in 17.1 and the third figure in 19.6.

[9]The number specifying the length of the Areopagite ascendancy (25.1) is somewhat remotely connected to the name of the archon in whose year Ephialtes deprived the Areopagos of the powers that constituted the guardianship of the constitution (25.2); see below, 303 f. Similarly, at 33.1 (first figure), which involves a period of months, the names of the relevant archons are found in neighbouring sections of the text.

[10]On the problems concerning these numbers, see Rhodes 221–227 and, most fully, Sumner 35–54.

[11]On the problems concerning the numbers in 13.1 see Sumner 49–54 and note 6 above; the problematic figures at 22.2, 22.8, and 34.1 are discussed by Sumner, 31–37 (in reverse order).

11 figures (20.3, 21.2, 22.3, 22.6, 22.7, 23.5, 25.2, 26.3, 26.4, 27.2, and 40.4), all of which are used inclusively and without qualification. The ordinals at 20.3 and 22.6 have complementary cardinals paired with them. In all the other nine cases archon names are added to the dates, as also in seven of the cases set aside as problematic.

From this analysis the following conclusions emerge regarding the use of cardinal and ordinal numerals and numeral qualification in *A. P.* First of all, the relationship prescribed by Rhodes (220–221) between the two types of numerals and inclusive/exclusive reckoning appears generally to hold. Thus, ordinals in all non-contentious cases appear to be used inclusively, whereas cardinals, though most often used exclusively, occasionally show inclusive reckoning. Secondly, with regard to qualification, most figures of both types are given absolutely; only six of 37 are qualified, four of these being cardinals (19.6, 25.1, 32.2, and 33.1) and two ordinals (15.1 and 19.2). Thus the proportion of cardinals qualified (four out of 15 = 26%) is consideraly higher than that for ordinals (two out of 22 = 9%). The qualifying expressions used are μάλιστα (in five cases) and ἴσως (in one case), these being both expressions of the type that indicates approximation and/or uncertainty.[12] The higher frequency of qualification of cardinals is what one would expect in view of the greater precision of ordinal reckoning (strongly argued by Rhodes, 220–221). In other words, one would expect a precise writer not to use an ordinal number unless he felt confident that his figure was precisely correct. If he felt doubt, he would more likely use a cardinal, if necessary with qualification. It is noteworthy that Thucydides also qualifies cardinal numerals referring to time much more frequently than ordinals.[13]

How far can we divine *A. P.*'s reasons for qualifying these six figures (viz., 15.1, 19.2, 19.6, 25.1, 32.2, and 33.1)? Let us look first at the figures relating to events of the fifth century, about which we are better informed (as also was *A. P.*, most probably), leaving aside for the present those that concern the chronology of the Peisistratids (15.1, 19.2, and 19.6). The statement at 33.1 that the government of the 400 lasted for μῆνας . . . ἴσως τέτταρας offers the best possibility of precise elucidation. This is the only one of the six qualified numerals in *A. P.* where the qualifier is not μάλιστα but ἴσως, which one might expect from its usual meaning ("perhaps") to indicate uncertainty of some kind rather than imprecision. What was

[12]For a fuller discussion of different types of qualifying expressions see "Thucydides I.74.1 and the use of ἐς with numerals," *CP* 74 (1979) 327–337, esp. 329–330, and "Qualification of numerals in Thucydides," forthcoming in *AJAH* 3 (1978).

[13]Thucydides uses cardinal numerals 93 times, and ordinals 43 times, in indicating intervals or periods of time (this count excludes from the total of ordinals the 20 notices of the beginning or end of the years of the Peloponnesian war, as Thucydides reckoned them: e.g., 2.47.1, 70.4, etc.). Of these totals 23 of the cardinals (=25%) are qualified, as compared to only four of the ordinals (=9%).

the nature and the extent of this uncertainty? At 32.1 *A. P.* gives a
calendar date for the entrance into office of the 400 (ἐνάτη φθίνοντος
Θαργηλιῶνος of the archonship of Kallias, 412/1).[14] For their fall from
power he gives no precise date. He says only (33.1) that the archonship
of Mnasilochos, the nominee of the 400, lasted for a two-month period
into what became the year of Theopompos, who held office for the re-
maining ten months (of 411/0). Unless we assume the unlikely coinci-
dence that the change from Mnasilochos to Theopompos took place
exactly at the end of Metageitnion, the second month of the Attic year
(411/0), we are left to guess exactly in which month the 400 fell. The
much fuller narrative supplied by Thucydides (8.89–98) of the end of the
oligarchy, which *A. P.* obviously knew and used, and from which at this
point he does not deviate, helps to resolve this question. *A. P.* (33.1 and
2) agrees with Thucydides (8.97.1 and 98.4) in representing the transfer
of power from the 400 to the 5000 ὅπλα παρεχόμενοι (which Thucydides
says was accomplished at the first assembly to be held on the Pnyx since
the 400 seized power) as the end of the oligarchy. The timetable of the
military events described by Thucydides in close connection with this
meeting of the assembly makes it likely that the 400 were ousted some-
what before the end of Metageitnion.[15] If this is correct, then either *A. P.*
knew the exact date of the assembly that voted the 400 out of power, but
preferred not to bother with the complicated calculation of exactly how
many days their government had lasted;[16] or perhaps he knew only that
it occurred sometime in Metageitnion of 411/0. In either case, in assigning
four months to the 400, he rounded up two part-months (Thargelion of
412/1 and Metageitnion of 411/0) into wholes, and he added the quali-
fying ἴσως to show his awareness of this imprecision. As Rhodes points out
(221), this amounts to the same thing as saying that he counted his
months inclusively in this case.

At 25.1 *A. P.* states that the predominance of the Areopagos lasted
ἔτη . . . ἐπτακαίδεκα μάλιστα μετὰ τὰ Μηδικά. It is usually assumed that τὰ

---

[14]There has been much debate over why in this passage *A. P.* assigned different dates
to the dissolution of the old Boule of 500 and the entrance into office of the 400, and
also over how to explain the divergences between the narratives of *A. P.* and Thucydides
(C. Hignett, *A History of the Athenian Constitution* [Oxford 1952] 356 ff., discusses these
matters in detail). For the purpose of the present discussion it matters only that *A. P.*
clearly counted ἐνάτη φθίνοντος Θαργηλιῶνος as the inauguration of the oligarchic
régime.

[15]See G. Busolt, *Griechische Geschichte* (Gotha 1904) 3.2.1508 note 3.

[16]He would have had to discover which of the four months concerned were full (30
days) and which were hollow (29 days), for the length of a given month might change
from year to year, and also to make sure that no days had been unpredictably inter-
calated, as sometimes happened (cf. A. E. Samuel, *Greek and Roman Chronology* [Munich
1972] 58, and note 2).

Μηδικά ended with the last major battles of the second Persian invasion of Greece, fought in 479/8, and that the period of high Areopagite authority was ended by Ephialtes' constitutional legislation, carried ἐπὶ Κόνωνος ἄρχοντος (462/1). On these assumptions, 17 archon-years is exactly right by exclusive reckoning, so that the reason for the qualification is not immediately apparent.[17] I think the explanation is that neither *terminus* was so clear-cut and definite as is usually maintained. τὰ Μηδικά is not a precise way of referring to a particular archon year:[18] compare 23.5 and 27.2, where *A. P.* dates Aristeides' assessment of tribute for the allies of Athens, and the beginning of the Peloponnesian War, to respectively the third and the 49th year after the Battle of Salamis, significantly using ordinal numbers as well as an unambiguous single event as his point of departure. The vagueness of τὰ Μηδικά at 25.1 fits with the use of a cardinal numeral to make a summary statement.[19] Nor is the other *terminus* of the period under discussion quite straightforward. The legislation that stripped the Areopagos of the powers that had made it the "guardian of the constitution," which *A. P.* dates to the archonship of Konon, was the culmination of a campaign that Ephialtes had launched some time before with attacks on the conduct of many individual Areopagites. *A. P.* apparently thought that Ephialtes' emergence as προστάτης τοῦ δήμου, when he began attacking the Areopagos, marked the end of that council's period

[17]Sumner suggested (42, note 2) that the μάλιστα in this passage was *A. P.*'s way of apologizing for the imprecision involved in reckoning the period of Areopagite supremacy from 479/8 (he accepts Hammond's precise interpretation of τὰ Μηδικά, below, note 18) instead of from his previous chronological reference point, the archonship of Timosthenes in 478/7 (23.5). It will be clear from notes 18 and 19 below that I feel much less certain that μετὰ τὰ Μηδικά meant precisely "after 479/8."

[18]N. G. L. Hammond ("τὸ Μηδικόν and τὰ Μηδικά," *CR* n.s. 7 [1957] 100–101) contended that Thucydides distinguished carefully between τὰ Μηδικά (the campaigns of Persia in Greece from 490/89 to 479/8), τὸ Μηδικόν (the campaign of Xerxes alone, 480/79 to 479/8), and ὁ Μηδικὸς πόλεμος (the war waged by the Greeks against Xerxes under Sparta's leadership, 480/79 to 478/7). I find it hard to believe that Thucydides always made the distinction in terminal points that Hammond proposed between the first two expressions and the third.

[19]Cf. Thuc. 1.118.2, where the period treated in the excursus on the growth of Athenian power between the Persian and Peloponnesian Wars (μεταξὺ τῆς τε Ξέρξου ἀναχωρήσεως καὶ τῆς ἀρχῆς τοῦδε τοῦ πολέμου) is referred to as 50 years μάλιστα. The context here (as at Thuc. 8.68.4, discussed below, 304 f., in connection with *A. P.* 32.2) calls for a general approximation, not a precise figure. By using the round "50 years" and adding μάλιστα to mark it as approximate, Thucydides neatly avoided the awkward necessity, which editors have sometimes tried to force upon him, of specifying exactly what event he took to be the beginning of his excursus (Gomme notes the vagueness of the figure at 118.2, speculates about the *termini* intended, and discusses the oddity of the two apparent prefaces to the excursus, at 89.1 and 97.1 [A. W. Gomme, *A Historical Commentary on Thucydides* 1 (Oxford 1945) 361–362, 359, and 363 note 1]). A more detailed discussion of Thuc. 1.118.2 and 8.68.4 will be found in the second paper cited in note 12.

of supremacy; but he was not sure whether this campaign began in the same year when the legislation in which it culminated was passed, or in some previous year. Thus at 25.1 *A. P.* was making a summary statement, using a cardinal number, which he qualified because the two *termini* that he had in mind for this period involved some vagueness.[20]

At 32.2 *A. P.* states that the oligarchy of the 400 came into being ἔτεσιν . . . μάλιστα ἑκατόν after the expulsion of the tyrants from Athens. The *termini* here are not in doubt: the two archons named by *A. P.* are Harpaktides (19.6) and Kallias, and their years are, respectively, 511/0 and 412/1.[21] The interval, then, is 99 years by exclusive reckoning, or 100 years reckoned inclusively. This is one of only two passages in *A. P.* where it is certain that a cardinal number is used inclusively; so that one might attribute the qualification to an awareness by the author that he had deserted his usual practice of exclusive reckoning with cardinals. That he preferred to use the round-sounding 100, with suitable qualification, instead of the more exact 99 absolutely, is in keeping with the generalizing flavour of the series of summary statements[22] in which *A. P.* directs attention to the major periods in the evolution of Athenian government. It may also be due in part to a reminiscence of Thucydides' remark (8.68.4) that the 400 oligarchs overthrew the democracy ἐπ᾽ ἔτει ἑκατοστῷ μάλιστα after the deposition of the tyrants;[23] only *A. P.* has substituted a cardinal for Thucydides' ordinal number. Thucydides' figure has called forth a flurry of discussion because by appropriate inclusive reckoning the ordinal, "in the 100th year," is exactly right. I believe that Thucydides' μάλιστα was motivated by a combination of two factors: a context that demanded a general statement, and the historian's slight uncertainty about whether the popular figure for the interval between the post-tyrannical rebirth and the temporary death of the democracy at Athens

[20]A distinction must be made throughout *A. P.* between statements that note the intervals between the archonships in which major events occurred and those that summarily note certain major periods in the development of the Athenian constitution. For the former *A. P.* consistently uses ordinal numerals; for the latter cardinals. Ordinal statements of intervals number 20 altogether: i.e., of the 22 ordinal numerals referring to time (Table B), all are of this type except those at 20.3 and 22.6, which complement cardinal statements. Of the 15 cardinal numbers (Table A), two (20.3 and 22.6) are paired with ordinals, and four (13.1, 13.2 and 33.1 [second and third figures]) refer to archons' terms of office. Of the remaining nine, seven, including 25.1 (the exceptions are 19.6 [first figure] and 22.3), can be classified as summary statements drawing attention to the major epochs in Athenian constitutional development; and all the four qualified cardinals in *A. P.* are in statements of this type.

[21]Hammond (384 ff.) would put Harpaktides in 510/09. I find Sumner's rebuttal of his argument (45 note 1) entirely convincing.

[22]See note 20 above.

[23]Sumner (42 note 2) suggests this.

was precisely correct.[24] I would suggest that these same considerations, combined with a remembrance of the passage in Thucydides, led *A. P.* to refer to this interval as ἔτεσιν . . . μάλιστα ἑκατόν.

Of the three Peisistratid figures that are qualified, let us take first that at 19.6, since it, like the three cases of qualification so far discussed, is a cardinal number. 19.6 contains *A. P.*'s figure for the duration of the tyranny of Peisistratos' sons. He dates the death of Peisistratos to the archonship of Philoneos (528/7; cf. 17.1) and the final expulsion of the family to that of Harpaktides (511/0). This makes a period of 17 years counted exclusively; so that the qualifying μάλιστα here (like that at Thucydides 8.68.4) defies explanation on the usual assumption that μάλιστα marks its figure as imprecise or approximate. A possible explanation in this passage would be that *A. P.* was aware that others calculated the length of Hippias' rule slightly differently, and more particularly that the *Politics* had given it as not 17 but 18 years.[25]

The other two qualified figures relating to the Peisistratids (15.1 and 19.2) demand special attention as the only cases in *A. P.* of qualified ordinal numbers. I have argued above that qualification of ordinals is much rarer than of cardinals in general (i.e., not just in *A. P.*), because ordinals are chiefly used by careful writers to specify an interval with special precision, which purpose conflicts with the usual motivation for qualifying numbers. It is noteworthy that these two figures stand out as unusual among *A. P.*'s ordinals also in having no archon names attached to them (the only other ordinals that lack archon names are two other Peisistratid figures, at 14.4 and 15.2);[26] and it has been plausibly suggested[27] that *A. P.* declined to give an archon name in connection with the event that he made the second *terminus* of an ordinally reckoned interval only where he lacked any authority beyond his own calculations for connecting that event with a certain archon. Two alternative explanations can be advanced for the qualifier at 19.2: either (as was postulated regarding 19.6) *A. P.* was uneasy at the slightly conflicting figures he found in reputable sources for the length of Hippias' sole rule (Herodotos had said "four years," while Thucydides put his fall "in the fourth year"[28]); or he was unsure whether the event which he actually mentions

---

[24]This interpretation of Thuc. 8.68.4 is argued in more detail in the second paper cited in note 12, above.

[25]Sumner (42 note 2) makes this suggestion.

[26]19.6 names the archon Harpaktides as in office at the time when the tyrants finally stepped down, but this name is attached to the summary statement of the duration of Hippias' rule rather than to the ordinal at 19.2.

[27]See Sumner 46.

[28]Hdt. 5.55; Thuc. 6.59.4—τυραννεύσας δὲ ἔτη τρία Ἱππίας ἔτι Ἀθηναίων καὶ παυθεὶς ἐν τῷ τετάρτῳ . . . . [Plato] *Hipparchus* 229b3–4 said Hippias ruled alone τρία ἔτη. On

in this passage as having set in motion the sequence that culminated in
Hippias' expulsion (Hippias' decision to fortify Mounychia) fell under the
same archon (Harpaktides) as the expulsion itself.[29] For the qualification
at 15.1 I would accept Sumner's explanation, that *A. P.* had no explicit
authority for the duration of Peisistratos' second period of tyranny, but
arrived at it by calculation and inference.[30]

Thus it seems quite possible that different considerations motivated
A. P. to qualify numerals in different passages. Explanations that have
been considered in this discussion include: (a) awareness that a reckoning
by whole units of the official calendar was less than perfectly accurate
(33.1; alternatively, this could be described as an awareness that partial
units have been treated as wholes); (b) concern about the imprecision of
one or both *termini* of a period (25.1; 19.2); (c) a generalizing context
together with slight uncertainty about the precise correctness of a con-
ventional figure (32.2); (d) concern over slight variation between the
calculations of different sources (15.1; 19.2; 32.2). It should be noted that
in several passages (15.2; 19.2; 32.2) part of the difficulty that led *A. P.*
to qualify the number may well have been translation from ordinal into
cardinal reckoning, or *vice versa*.

To sum up, systematic analysis of the figures relating to time in *A. P.*
seems generally to bear out Rhodes' contention that ordinal numbers are
used with unambiguous precision by inclusive reckoning (i.e., including
both *termini*), whereas cardinals are not always, although they are more
often, used exclusively. Analysis of the pattern of qualification in *A. P.*,
as elsewhere (e.g., in Thucydides), shows that ordinals are less frequently
qualified than cardinals, which is to be expected if ordinals are inherently
more precise than cardinals. However, the fact that *A. P.* qualified two
of the ordinal figures relating to the Peisistratid chronology shows that he
did not feel equally confident about the precision and correctness of all his
ordinal numbers, which finding needs to be taken into consideration in
any argument, general or particular, about *A. P.*'s use of numbers.

The reasons why *A. P.* qualified three of the numbers (two ordinals
and one cardinal) relating to the Peisistratids cannot be certainly estab-
lished, although several possible explanations can be proposed on the

---

these different ways of reckoning the same period see Rhodes 221. Sumner (45 note 1)
suggested that by qualifying the numeral at 19.2, "*A. P.* himself [was] indicat[ing]
puzzlement over Herodotus' 4 years."

[29]Compare the explanation suggested for the qualification in 25.1, above, 302 f.

[30]Sumner 42 and 46. K. J. Dover suggests a similar motivation for Thucydides' use
of μάλιστα to qualify the number of ships in the relieving expedition sent by Athens
to Syracuse in 413 (A. W. Gomme, A. Andrewes, and K. J. Dover, *A historical commen-
tary on Thucydides* 4 [Oxford 1970] 419, *ad* Thuc. 7.42.1). On this passage see also the
second paper cited above, note 12.

analogy of other cases of qualification, in this work and others, about which we have more information. But scholars attempting to reconstruct Peisistratid chronology should keep firmly in mind a no less significant, though secondary, result of this enquiry: namely, that the indications of time applied by *A. P.* to the Peisistratids stand out as odd in several respects when compared to those in other parts of the work. First, in their high rate of qualification: only six numbers out of a total of 37 applied to intervals of time in *A. P.* are qualified, but three of those relate to the Peisistratids (out of a total of 13 Peisistratid numbers). Secondly, the only two instances (15.1 and 19.2) in which ordinal numbers are qualified (something that is not common elsewhere; cf. the figures for Thucydides) are found among the Peisistratid figures. And thirdly, whereas *A. P.* generally adds an archon name to any date which he indicates by means of an ordinal numeral (in 16 of 20 cases where ordinals appear uncomplemented by cardinals), the four exceptions to this rule are all Peisistratid dates (14.4, 15.1, 15.2, and 19.2), two of these being also the unusual qualified ordinals just referred to. This significant deviation in form of the Peisistratid numbers from the other numbers applied to time intervals by *A. P.* points to two conclusions: (i) the information on which *A. P.* based his Peisistratid chronology differed somehow in amount or quality or type (or several of these aspects) from that on which he based most of his chronological statements, so that he felt less certain of the correctness and/or precision of these figures; and (ii) in view of this, we cannot necessarily extrapolate back from *A. P.*'s practice in giving chronological data in later parts of the treatise to divine the basis for his Peisistratid chronology.[31]

ERINDALE COLLEGE,
UNIVERSITY OF TORONTO