

## εἰληφα and the Aspirated Perfect

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The origin of the Greek aspirated perfect is still unknown, though several hypotheses concerning it have been advanced. After reviewing earlier work I shall suggest a new explanation from a perspective not previously considered.<sup>1)</sup>

The facts are briefly as follows. About two dozen Greek verbs, all with roots ending in  $\pi$ ,  $\beta$ ,  $\kappa$ , or  $\gamma$ , form active perfect stems characterized by an aspirated root-final consonant ( $\varphi$  or  $\chi$ ). Typical examples are:

root:	perfect:
πεμπ- 'send'	πέπομφα
τριβ- 'rub'	τέτριφα
φυλακ- 'guard'	πεφύλαχα
ταγ- 'arrange'	τέταχα

This type of perfect is confined to the Attic-Ionic dialect group<sup>2)</sup> and largely to the Attic dialect. Indisputable examples do not occur before the fifth century B. C. This is the class of perfects whose origin I shall try to account for; I shall refer to them as "aspirated perfects".

The aspiration of these stems might be connected historically with a similar phenomenon observable in the mediopassive perfect system. Before the third person plural (3 pl.) indicative endings,

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<sup>1)</sup> An earlier version of this article constituted the first part of a paper entitled "Grassmann's Law, the Greek Aspirated Perfect, and the Reduplicating Syllable  $\acute{\epsilon}$ ," read at the Third East Coast Indo-European Conference in Philadelphia, May 31, 1984. I am grateful to Warren Cowgill, Jochem Schindler, and Calvert Watkins for helpful comments on the part of that paper that underlies this one, and to many other participants in the conference for useful criticism of other parts of the original. I would also (and particularly) like to thank Warren Cowgill for helpful comments on a later draft. All errors and inadequacies are mine.

<sup>2)</sup> A few examples occur in inscriptions of other dialects, but all are relatively late and attributable to Attic koine influence. Examples in the Doric literature of the Hellenistic period can also be Atticisms.

perfect *-αται* and pluperfect *-ατο*, some mediopassive perfect stems aspirate root-final  $\pi$  or  $\beta$  to  $\varphi$  and root-final  $\kappa$  or  $\gamma$  to  $\chi$ . The following examples are typical:

root:	3pl. mediopassive perfect or pluperfect:
<i>τρεπ-</i> 'turn'	<i>ἐπιτετρόφαται</i> 'they have been entrusted (to)'
<i>τριβ-</i> 'rub'	<i>τετριφάται</i> 'they have been rubbed'
<i>ταγ-</i> 'arrange'	<i>ἐτετάχατο</i> 'they had been drawn up'

Forms of this type are also confined to Attic-Ionic, and most of the attested examples are Ionic; they were gradually superseded by periphrastic forms and disappeared early in the fourth century B.C.<sup>3</sup>) I shall call them "aspirated mediopassive forms".

Previous attempts to discover the origin of the aspirated perfect vary in plausibility; I shall discuss each in turn, beginning with those that seem to me least likely. I omit the pre-Neogrammarian view, according to which the aspiration is the result of sporadic sound change; the most recent statement of that view is probably that of Georg Curtius (1885, pp. 58–65).

A proposal which has found no modern adherents (at least in print) is that of Holger Pedersen (1906, pp. 253–4). Pedersen suggests tentatively that "der Wechsel zwischen *p* und *ph* in einem oder mehreren Beispielen schon im Idg. in der Weise geregelt gewesen ist, daß *ph* speziell dem Perfekt gehörte, was dann als Ausgangspunkt für das Griechische aspirierte Perfektum zu betrachten wäre"; the absence of aspirated perfects in Homer must then be due to their rarity at that early date. But the only evidence that Pedersen can adduce from another branch of Indo-European is the Avestan perfect *hušuuaja* (to *x<sup>v</sup>ap-* 'sleep', Proto-Indo-European \**swep-*), with *f* conceivably from \**ph*; and Roland Kent (1941, pp. 189–90) observes that this *f* could have been introduced analogically from the present *x<sup>v</sup>afsa-* and the noun *x<sup>v</sup>afna-*, in which *f* is the regular preconsonantal reflex of \**p*. Thus there is no real evidence to support Pedersen's conjecture.

Another unlikely proposal is that of Edgar Sturtevant (1940, pp. 179–82), who believes that the aspiration of the Greek aspirated perfect can be the regular phonological reflex of laryngeals in the

<sup>3</sup>) Herodotos' *ἀπικαται* (7.209.3) and *ἀπικατο* (18×) are the only attested forms that might have exhibited this aspiration but fail to do so. In saying that the aspirated forms disappeared in the fourth century, I ignore the artificial examples in late koine and Ionicizing authors, as well as examples attested only by grammarians. See Smyth (1894), pp. 110–9, 509–10.

Proto-Indo-European perfect endings. As R.S.P. Beekes has demonstrated (1969, pp. 179–81), laryngeals do not aspirate preceding stops in Greek; the 2sg. ending *-θα* is an apparent exception to this rule, but it involves a dental, and roots in dentals do not make aspirated perfects.<sup>4</sup>)

It seems clear that the origin of the aspirated perfect must be sought in some analogical change or sequence of changes within the history of Greek. Two earlier hypotheses do just that; both were formulated about a century ago, and both are worth discussing in some detail.

Johannes Schmidt's hypothesis (1884, pp. 309–14) connects the aspiration of the 3pl. mediopassive forms with that of the active stems. He believes that in the mediopassive perfect aspirated stops have been introduced into the 3pl. forms from other forms of the paradigm in which they arose by regular sound change, namely the forms that have endings beginning with *-(σ)θ-*. Thus, for example, the *χ* of *τετάχεται* and *ἐτετάχαστο* originated in *(ἐ)τέταχθε*, *τετάχθω*, *τετάχθαι*, etc. Later the aspiration of the 3pl. mediopassive forms was introduced into the active as well, creating the aspirated perfect (in this case *τέταχα*). Because root-final dentals became *σ*, not *θ*, before the *θ* of the endings (or, alternatively, disappeared before *σθ*), there was no occasion to form 3pl. mediopassive forms in *-θαται*, *-θατο* to stems in *τ* and *δ*; this accounts for the fact that root-final dentals are not aspirated either in the mediopassive or in the active perfect.

Schmidt's hypothesis is very attractive; it has been accepted by Jacob Wackernagel (1916, pp. 184–5), Eduard Schwyzer (1939, pp. 771–2), Helmut Rix (1976, p. 221), and others. But serious objections were raised almost at once by Georg Curtius (1885, pp. 62–4). Why, asks Curtius, should the mediopassive perfect forms that acquired root-final aspiration through regular sound change have exerted a disproportionate amount of analogical influence on the 3pl. forms? He notes that the 2pl. forms in *-θε* are not common, and the same can be said of the duals and the imperatives; of the forms that have endings beginning with *θ*, only the infinitive occurs fairly often. Moreover, if it is true that aspiration spread from the mediopassive to the active, we expect to find that the earliest aspirated perfects occur beside contemporary 3pl. mediopassive forms with root-final aspiration. No such correlation appears in our

<sup>4</sup>) Kent's objections (1941, pp. 190–2) are less cogent.

data; in fact, there are no demonstrable links between the two formations. Consequently, argues Curtius, we cannot say whether the aspiration of the active forms has anything to do with that of the mediopassives. These objections cast grave doubt on Schmidt's hypothesis.<sup>5)</sup>

The other hypothesis worth considering was advanced by Hermann Osthoff (1884, pp. 284–91); he also begins with the aspirated mediopassive forms, which he explains as follows. In the mediopassive perfect, voicing and aspiration of stem-final stops are neutralized except before the 3pl. indicative endings *-αται*, *-ατο*, the only endings that begin with vowels;<sup>6)</sup> it would not be surprising if speakers of Greek became uncertain about the identity of the final consonants of some of these stems. Under such conditions the etymologically correct *φ* and *χ* of some stems could easily have spread to stems in which they did not originally belong by analogies such as the following:

*γέγραπται* : *γεγράφθαι* : *γεγραμμένος* : *γεγράφται* ::  
*τέτραπται* : *τετράφθαι* : *τετραμμένος* : X ;  
 X = *τετράφται*, replacing \**τέτράπαται*.

Since this accounts neatly for the aspiration of the mediopassive forms, Osthoff suggests a parallel type of analogy to account for the aspirated perfect:

*κρύπτω* : *κρύψω* : *ἔκρυψα* : *κέκρυφα* ::  
*κόπτω* : *κόψω* : *ἔκοψα* : X ;  
 X = *κέκοφα*, replacing \**κέκοπα* (cf. Homeric *κεκοπώς*).

This explanation was adopted by Gustav Meyer in the second and third editions of his grammar (1886, pp. 488–9; 1896, pp. 637–8), but it was not widely accepted. Since there is no direct connection between Osthoff's explanation of the aspiration of the mediopassive forms and that of the aspirated perfect, it will be convenient to evaluate the two separately.

<sup>5)</sup> Osthoff's objections (1884, pp. 614–7) can be disregarded, as they are based on the unlikely idea that the clusters *φθ*, *χθ* are actually *πθ*, *κθ*; see Schmidt (1887), pp. 179–84.

<sup>6)</sup> Non-periphrastic subjunctive and optative forms would exhibit vowels after the stem-final consonant, but subjunctives and optatives of mediopassive perfects with stems ending in consonants are always periphrastic. In saying that the contrasts are neutralized I am not, of course, denying that the appearance of *γμ* for \**κμ* and \**χμ* is itself the result of analogies, nor did Osthoff deny this (cf. his remarks pp. 285, 317–8).

In the case of the mediopassive forms the objections against Osthoff's hypothesis are not weighty. Johannes Schmidt (1887, pp. 176–8) attacks it on the grounds that stems with final aspirates could not have been common enough to cause a general spread of stem-final aspiration; but Schmidt's objection ignores the possibility that the aspiration at first spread very slowly from one common verb, then spread more rapidly as a class of aspirated forms gradually became recognizable.<sup>7)</sup> A criticism which at first sight seems more serious is that Osthoff's hypothesis cannot explain why there are no aspirated forms of the perfect (active or mediopassive) with  $\vartheta$ , whereas Schmidt's hypothesis does. But it is equally possible that the lack of aspirated forms with  $\vartheta$  is the chance result of peculiarities of phonemic and morphological distribution noted by Curtius (1885, pp. 60–1): verb roots ending in  $\tau$  are quite rare, and those in  $\delta$  are not numerous; there are many derived verb bases in  $\delta$  (with presents in  $-ίζω$  and  $-άζω$ ), but these did not begin to form perfects until relatively late, and their active perfects are in- $\kappa\alpha$ .<sup>8)</sup> I can think of no other objections to Osthoff's explanation of the aspirated mediopassive forms, and I believe that in this instance he is correct.<sup>9)</sup>

The active aspirated perfect is quite another matter; here Osthoff is unconvincing for a very simple reason. His explanation depends on the neutralization of voicing and aspiration in root-final stops throughout the active verb paradigm, but there the neutralization is far less thoroughgoing than it is in the mediopassive perfect; in particular, there are many simple thematic presents (e.g.  $\tauρέπω$ ,  $\τρέβω$ ,  $\γράφω$ ) and some aorists (e.g.  $\ἤγαγον$ ,  $\ἔκόπην$ ) in which the identity of the root-final stop remains unobscured. Antoine Meillet (1906, pp. 50–2) prefers to stress the fact

<sup>7)</sup> It is not easy to discover from which verb the spread of aspiration began. On general semantic grounds Warren Cowgill (personal communication) very tentatively suggests  $\τεύχω$ , 3pl. perf.  $\τετεύχασαι$ .

<sup>8)</sup> Osthoff's own attempt to explain the absence of aspirated forms with  $\vartheta$  (1884, p. 290) is not convincing. Examples of active perfects to verbs in  $-ίζω$  are  $-άζω$  are almost all Attic and Ionic; all the exceptions are late enough to be Atticisms. It is at least possible that fourth-century B.C. East Aiolic  $\ἔγδεδικακε$  (*Inscr. gr. Städte aus Kleinasien* V 1.3, from Kyme) is a genuine dialect form, but we cannot be sure. The only active perfect to such a verb formed in any other way is  $\περιώριγα$ , a stem found twice in a late second- or early first-century B.C. Doric koine inscription from Megalopolis (*IG* V-2 443.10, 50).

<sup>9)</sup> I hope to write at greater length on this subject in the near future.

that most aspirated perfects are formed to verbs with sigmatic aorists and many to verbs with presents in *-πτω* or *-ττω* (in all of which the required neutralization occurs), but this does not meet the objection.<sup>10</sup>) There is also a further difficulty with Osthoff's hypothesis, which Meillet recognizes (1906, p. 52): Osthoff's analogies cannot explain how aspiration became, in effect, a suffix for forming the perfect active stem. To do that we must find "un cas où un présent sans aspiration s'oppose à un parfait à aspirée". Meillet argues that we do find such cases in the paradigms of verbs that have roots in *φ* and presents in *-πτω* (e.g. *σκάπτω*, *ἔσκαφα*; *κρύπτω*, *κέκρυφα*); he asserts that "il n'y a pas à objecter que, ici, le *π* du présent est déterminé par la sourde non aspirée suivante", since "*-τω* n'est pas un suffixe ordinaire et ne se présente après aucune consonne autre que les labiales". One might as well say that we can find such cases if only we ignore the stem-forming suffix *-τ-*! Surely that suffix is a synchronic reality in Greek; and if it is, Meillet's whole argument collapses. Alain Christol (1972, pp. 69–83) offers a different explanation: in such a paradigm as *σκάπτω*: *ἔσκαφα*, a *π* was factored both out of the cluster *πτ* and out of the aspirate *φ* (*πh*), so that the aspiration of the latter could be treated as a stem-forming suffix parallel to the *τ* of the former. Of course, this could only occur if *φ* were a consonant cluster, *πh*, rather than a single, unanalyzable phoneme, and Christol himself does not doubt that the Greek aspirates have been unit phonemes at least since the time of Homer. Christol believes that he can demonstrate (by a variety of structuralist arguments) that aspirated stops were diphonemic sequences at some earlier stage in the development of Greek; but since he cannot claim this for any period later than the eighth century B.C., whereas aspirated perfects are attested only from the fifth century B.C. onwards, Christol is reduced to suggesting (p. 81) that aspirated perfects fail to appear in authors before Sophokles partly because of the low frequency of occurrence of the perfect tenses and partly because the literary language resisted such an innovation. I find the entire argument

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<sup>10</sup>) Meillet's additional conjecture (p. 52) that *ψ*, *ξ* could actually represent *φσ*, *χσ*, since they are so written in some epichoric alphabets, and that this could have contributed to the appearance of stem-final aspirates in the perfect, strikes me as extremely improbable. It is far more likely that the use of the aspirates in the spellings *φσ*, *χσ* is an attempt to write the "white noise" of the following strident, which resembles that of post-plosive aspiration.

quite unconvincing. The objections to Osthoff's explanation of the origin of the aspirated perfect must be allowed to stand, and in that case his explanation must be rejected.

Let us try a different approach to the problem. However the aspirated perfect originated, the formation undoubtedly spread from verb to verb by a series of particular analogies until a recognizable class had been formed. The initial models for such analogies are frequently isolated, even unique, forms; if a peculiar form occurs frequently enough, it can exert analogical influence on the corresponding forms of semantically related lexemes. An excellent example is the Attic creation of the perfect εἴληφα to λαγ-χάνω, and even συνείλοχα to συλλέγω, on the model of εἴληφα, the anomalous perfect of λαμβάνω. Perhaps it is worth asking whether any attested aspirated perfect could be the model around which the class of aspirated perfects collected by such analogies.

Any attempt to answer such a question must begin with a review of the data. It will be convenient to review simultaneously the attestation of aspirated mediopassive forms; if the two formations are historically connected, the data should reveal that fact. I have collected relevant forms from the following Ionic and Attic authors and corpora, covering the period from the beginning of Greek alphabetic writing through the first decades of the fourth century B.C.:<sup>11)</sup>

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<sup>11)</sup> I have not examined the fragments of the early philosophers and annalists, nor of the lesser Attic dramatics; it is unlikely that they contain relevant forms, since none are quoted by earlier scholars and the fragments are not extensive. The source for the dates in this table is the *Oxford Classical Dictionary* (2nd ed.); the sources for my data in subsequent tables are the following. "Collection" means a manuscript list of forms compiled by inspection of a text. All sources but my own collections have been checked against the texts, except in cases in which the number of attestations is large.

Homer: Gehring (1970) and Warren Cowgill's collection; Hesiod: Paulson (1890); elegiac, etc. poets and Gorgias: my collections; tragedians: Italie (1955), Ellendt (1872), Allen and Italie (1954), and Cowgill's collections; Herodotos: Cowgill's collection; Antiphon: van Cleef (1895); Lysias: Holmes (1965); Thoukydides: von Essen (1887) and Cowgill's collection; Aristophanes: Todd (1932); Andokides: Forman (1897); Plato: Brandwood (1976); Isaios: Denommé (1968); inscriptions: my collections. I do not have complete collections of relevant material from Isokrates, Xenophon, or Hippokrates, and have been obliged to rely on Liddell, Scott, and Jones (1968) and Smyth (1894); I do not expect this to affect my results, as the authors in question are among the latest considered.

<i>author/corpus:</i>	<i>dates (B. C.):</i>
Homer, Hesiod elegiac, iambic, and lyric poets	8th c. 7th–4th c.
Aischylos	525–456
Sophokles	ca. 496–406
Herodotos	ca. 484–ca. 425
Georgias	ca. 483–376
Antiphon	ca. 480–411
Euripides	ca. 480–406
Lysias	ca. 459–ca. 380 (some works pseudonymous)
Thoukydides	ca. 455–ca. 400
Aristophanes	ca. 445–385
Andokides	ca. 440–ca. 390
Isokrates	436–338
Plato	ca. 429–347
Xenophon	ca. 428–ca. 354
Isaios	ca. 420–350
Hippokrates	(late 5th c., but the whole corpus is pseudonymous)
inscriptions	8th–4th c. (mostly 6th–4th c.)

I have excluded from the following table of forms all perfects made from verbs whose roots might end in  $\varphi$  or  $\chi$  synchronically; thus, for example,  $\xi\rho\rho\iota\varphi\alpha$  (which occurs first in Lysias) is omitted because of the  $\varphi$  of the passive aorist  $\xi\rho\rho\acute{\iota}\varphi\eta\nu$ , though the related noun  $\acute{\rho}\iota\pi\acute{\eta}$  has  $\pi$ . Otherwise all forms usually considered aspirated perfects have been included.<sup>13)</sup>

	<i>aspirated medio-</i> <i>passive forms</i>	<i>aspirated perfects</i>
Homer	$\delta\epsilon\iota\delta\acute{\epsilon}\chi\alpha\tau\alpha\iota$ $\eta$ 72 $\delta\epsilon\iota\delta\acute{\epsilon}\chi\alpha\tau(\omicron)$ 3 $\times$ ( $\Pi$ .) $\xi\rho\chi\alpha\tau\alpha\iota$ 2 $\times$ $\xi\rho\chi\alpha\tau\omicron$ 3 $\times$ $\acute{\epsilon}\xi\rho\chi\alpha\tau\omicron$ $\kappa$ 241 $\acute{\epsilon}\pi\acute{\omega}\chi\alpha\tau\omicron$ $M$ 340 $\acute{\omicron}\rho\omega\rho\acute{\epsilon}\chi\alpha\tau\alpha\iota$ $\Pi$ 834 $\acute{\omicron}\rho\omega\rho\acute{\epsilon}\chi\alpha\tau\omicron$ $\Lambda$ 26 $\acute{\epsilon}\pi\iota\tau\epsilon\tau\rho\acute{\alpha}\varphi\alpha\tau\alpha\iota$ 2 $\times$ ( $B$ ) $\tau\epsilon\tau\rho\acute{\alpha}\varphi\alpha\theta^{\circ}$ ( $-\tau\omicron$ ) $K$ 189	none

<sup>13)</sup> My reasons for expressing myself this way will become clear below. In the lists "etc." means that other forms of an active paradigm besides the one quoted occur. On  $\delta\epsilon\iota\delta\acute{\epsilon}\chi\alpha\tau\alpha\iota$ ,  $-\alpha\tau\omicron$  see Forssman (1978); on  $\acute{\epsilon}\pi\acute{\omega}\chi\alpha\tau\omicron$  (to  $*\acute{\epsilon}\pi\omicron\lambda\acute{\gamma}\omega$ ) see Wackernagel (1902). I omit Herodotos'  $\pi\epsilon\pi\omicron\rho\eta\chi\acute{\epsilon}\nu\alpha\iota$  (5.106.4), since it is not found in the best manuscripts, which have  $\pi\epsilon\pi\omicron\eta\chi\acute{\epsilon}\nu\alpha\iota$ ; its



	<i>aspirated medio passive forms</i>	<i>aspirated perfects</i>
Hesiod	none	none
elegiac, iambic, lyric poets	none	none
Ionic inscriptions	none	none
Aischylos	none	none
Sophokles	none	ἀνατέτροφας <i>Trach.</i> 1008
Herodotos	ἀποδεδέχεται 3 × (κατ)εἰλίχαστο 2 × ἀναμεμείχαστο 2 × ἐσεσάχαστο 5 × (-)ἐτετάχαστο 17 × τετρίφαστο 2.93.3	ἐπεπόμφεε 1.85.1
Gorgias	none	none
Antiphon	none	none
Euripides	none	none
Lysias	none	-ἐνήροχα etc. 7 × περικεκόφασσι 14.42
Thoukydides	τετάχαστο 3.13.3 (δι)ἐτετάχαστο 3 ×	πεπόμφασσι 7.12.1
Attic inscriptions	ἐτετάχαστο <i>IG I<sup>3</sup></i> 61.9, 31 (430/29 B.C.)	none
Aristophanes	none	κέκλοφας etc. 6 × μεμαχότος <i>Knights</i> 55 τέτροφας <i>Clouds</i> 858 ἐπιτέτριφεν <i>Lys.</i> 952 ἐξενήροχας <i>Ekkkl.</i> 754
Andokides	none	εἰσηνηροχότες 3.20 ἀνατέτροφεν 1.131
Isokrates	?	ἐπτηχότας 5.58 ἐνηροχότας 6.60
Plato	none	μετενηροχότας <i>Kritias</i> 113 a.7 κέκλοφεν <i>Laws XII</i> 941 d.1 συγκεκόφασσι <i>Theait.</i> 169 b.8 πέπομφας <i>Erist.</i> II 312 d.5 συντέταχεν <i>Laws I</i> 625 c.7 διατέτριφα etc. 2 × παραπεφυλαχότα <i>Laws I</i> 632 a.1
Xenophon	ἀντιτετάχαστο <i>Anab.</i> IV 8.5	συνήχας <i>Mem.</i> 4.2.8 ἀπήλλαχεν <i>Mem.</i> 3.13.6 ἐκκεκόφασσι <i>Hell.</i> 6.5.37 ἐπεπόμφει <i>Kyr.</i> 6.2.9

inclusion, however, would not affect my argument. *IG I<sup>3</sup>* 61 was engraved in 424/3, but the passage in which the form in question occurs was written in 430/29.

Xenophon	<i>ἀντιτετάχεται</i> <i>Anab.</i> IV 8.5	<i>πεπομφέναι Kyg.</i> 6.2.10 <i>πέπραχε Kyg.</i> 3.1.15 <i>ἐπεπράχει Hell.</i> 5.2.32 <i>πεπραχῶς εἶη</i> <i>ibid.</i> <i>τέταχε Oik.</i> 4.5 <i>διαπεφυλάχασι Kyg.</i> 8.6.3
Isaios	none	- <i>ἐνήνοχε</i> etc. 4 ×
Hippokrates	<i>διακεκόφεται</i> III 212	<i>ἐμπέπλεχε</i> IX 192 - <i>πέπλοχε</i> 2 × IX 190

As Curtius asserted (see above), there is no discoverable relation between the aspirated mediopassive forms and the aspirated perfect. The only aspirated perfect that occurs in Ionic is *πέπομφα*, but there is no corresponding aspirated mediopassive form. Conversely, the only Attic aspirated mediopassive forms are *τετάχεται* and *ἐτετάχαιτο* (and their compounds), but *τέταχα* is not one of the earliest attested aspirated perfects; it does not occur before Plato and Xenophon.

To search among the forms of this table for an "original" aspirated perfect, on which the others could have been modelled by analogy, is a frustrating task. The two earliest attested stems are *τέτροφα* and *πέπομφα*; the latter is commoner than the former, but it seems doubtful that either is common enough and semantically basic enough to have collected a class of perfects around itself by analogy. Lysias' *ἐνήνοχα* is better, but it could be an innovation of his own generation, and that would leave the earlier forms unexplained.

But there is an aspirated perfect that nearly everyone has forgotten about, namely *εἴληφα*;<sup>13</sup>) the pattern of its attestation strongly suggests that it is the original aspirated perfect that we are seeking:

	<i>number of occurrences</i>
Homer	none
Hesiod	none
elegiac, iambic, lyric poets	1 ( <i>εἴληφας</i> Archilochos fr. 88A; doubtful)
Ionic inscrr.	none

<sup>13</sup>) Wackernagel (1916, p. 189) does include *εἴληφα* in a list of aspirated perfects. Gustav Mayer (1880, p. 422) and Eduard Schwyzer (1939, p. 772) suggest that the relation of *εἴληφα* to *λαμβάνω* might have been one model for the aspirated perfect; neither concludes, as I do, that it was the first model and is responsible for the origin of the formation.

	<i>number of occurrences</i>
Aischylos	none (but see below)
Sophokles	3
Herodotos	none (uses <i>λελάβηκα</i> )
Gorgias	none
Antiphon	2
Euripides	3
Lysias	19
Thoukydides	10
Aristophanes	8
Andokides	1 (doubtful)
Isokrates	?
Attic inscriptions	3 ( <i>SEG XII 37.29, 409-7 B.C.</i> ; <i>IG II<sup>2</sup> 1.29, 405/4</i> ; <i>IG XII-1 977.A.18, 394/3</i> , Athenian decree on Karpathos)
Plato	98
Xenophon	?
Isaios	18
Hippokrates	none?

*εἴληφα* occurs three times in the attested plays and fragments of Sophokles,<sup>14</sup>) the earliest author in whose writings other aspirated perfects also occur; thenceforward it is very common in Attic, and only those writers of whose work little survives fail to attest it. Moreover, though *εἴληφα* happens not to be attested in the surviving works of Aischylos, it is easy to infer that it was already part of the Attic dialect in his generation. *εἴληχα*, the Attic perfect of *λαγχάνω*, does occur three times in Aischylos;<sup>15</sup>) since *εἴληχα* is an innovation that replaced the older *λέλογχα*,<sup>16</sup>) and since the model for the creation of *εἴληχα* can only have been *εἴληφα*, the occurrence of *εἴληχα* in Aischylos is good evidence that *εἴληφα* already existed as well. It is clear from these facts that analogical modelling on *εἴληφα* can account for the Attic aspirated perfects.

The few Ionic examples can be accounted for in various ways. The perfects of *πλέκω* that occur in Hippokrates are not likely to be earlier than the fourth century B.C., and are probably Atticisms.<sup>17</sup>) Herodotos' *ἐπεπόμεφε* is another matter. It could conceivably be an Atticism; since it occurs only once, it could even be

<sup>14</sup>) *Oidipous Tyrannos* 643, *Oidipous at Kolonos* 729, *Triptolemos* fr. 596 (Pearson's numbering)[ = 596 Radt].

<sup>15</sup>) *Seven Against Thebes* 376, 423, 451.

<sup>16</sup>) Cf. Homeric *λελόγχασι* λ 304.

<sup>17</sup>) Apparently no active perfect of *πλέκω* occurs in any other text, though Herodian assures us that *πέπλοχα* is Attic; see Smyth (1894), p. 495.

the result of textual corruption, though there is no evidence that it is. But I think that *ἐπεπόμφεε* is best treated in connection with the possible occurrence of *εἴληφας* in a fragment of Archilochos. The fragment in question is reconstructed from an inexact quotation in Lucian,<sup>18)</sup> and it is not completely certain that *εἴληφας* is what Archilochos wrote. However, if we accept Archilochos' *εἴληφας* as genuine, we can explain not only the occurrence of *ἐπεπόμφεε* in Herodotos, but also the failure of other aspirated perfects to occur in Ionic Greek.

Let us suppose that *εἴληφα* was the perfect of *λάζομαι*, *ἔλαβον* 'take' throughout Attic-Ionic at an early stage of that group's development.<sup>19)</sup> The failure of *εἴληφα* to occur in Homer can be accidental; the future of this verb also fails to occur in the epics, and the present and aorists together occur only about 150 times. In Attic *εἴληφα* survived for centuries, and a class of aspirated perfects was gradually created by analogy with it, beginning around 500 B.C. at the latest. In Ionic the same process began, and at least *πέπομφα* was created; but the opaque *εἴληφα* was replaced by *λελάβηκα*, and with the disappearance of its commonest member the class of aspirated perfects underwent no further expansion.<sup>20)</sup> This hypothesis accounts easily and naturally for the observed distribution of aspirated perfects.

Since the origin of *εἴληφα* is in effect the origin of the aspirated perfect, we must examine the etymology of *εἴληφα*. The usual opinion is that *εἴληφα* is related to *λάφυρα* (pl.) 'spoils, booty' and *ἀμφιλαφής* 'huge, vast' (originally 'comprehensive'), all three from Proto-Greek (PG) \*laph-; the Sanskrit doublets *labh-* 'take, seize' and *rabh-* 'grasp' (with their derivatives) are related to the Greek words, and all ultimately reflect a Proto-Indo-European (PIE) root \*labh- 'take'. On the other hand, *λάζομαι* and *ἔλαβον* are from PG \*hlag<sup>w</sup>- ( $\zeta < *g^wy$ ; for the initial cluster cf. the Aiginetan aorist

<sup>18)</sup> See Diehl (1952), p. 39.

<sup>19)</sup> *λάζομαι* appears first in the Homeric Hymns, *λαμβάνω* first in Hipponax (fr. 81.2).

<sup>20)</sup> Exactly when *λελάβηκα* replaced *εἴληφα* is a matter of considerable interest, since it is a terminus ante quem for the creation of *πέπομφα* in Ionic, but there is no evidence. The appearance of *λελάβηκα* in the inscriptions of various Peloponnesian dialects as well as in Herodotos' Ionic need not indicate that it was a particularly early creation; the earliest epigraphical attestation is from the fourth century B.C. (*IG* V-2 6.14, Arkadian, from Tegea), and since *λελάβηκα* is transparently formed to the aorist *ἔλαβον* it could have spread quickly (or even arisen more than once independently).

participle *λαβόν*, *IG* IV 177); this Greek verb and Old English *læccan* 'seize' are both descended from PIE \*slag<sup>w</sup>-.<sup>21</sup>) Since there is no evidence for PG \*hl- in *λάφυρα* or *ἀμφιλαφής*, nor for PIE \*sl- in Sanscrit *labh-*, *rabh-*, it is reasonable to suggest that *εἴληφα* (< \*hé-hlāpha) acquired its \*hl- by being integrated into the paradigm of \*hlag<sup>w</sup>-.

These traditional etymologies fit my hypothesis well; a linguistic accident by which a perfect made to a root in an aspirate was integrated into the paradigm of a semantically similar verb with no aspirate provides the most natural explanation for the existence of aspirated perfects. Of course I admit that the cognates adduced for these forms are neither as numerous nor as obvious as might be wished; the connection of *læccan* with *λάζομαι* is particularly tenuous, since the Old English verb has no initial *s*-. But it does seem that the "two-root" solution is the only one that can account for all the facts.<sup>22</sup>)

It should be noted that *εἴληφα* could have been made an integral part of the paradigm of *λάζομαι* only after labiovelars had become labials, i.e. after the Mycenaean period. Before that time *εἴληφα* was apparently an isolated perfect like *ἔοικα*; it must have meant something like 'have got'.<sup>23</sup>)

It should also be noted that each aspirated perfect is a completely new formation, not a remodelling of an already existing

<sup>21</sup>) These are the usual etymologies. See, for example, Boisacq (1916) and Chantraine (1968–80) s.vv. *λαμβάνω* and *λάφυρον*; Walde and Pokorny (1933) s.vv. *labh-* and *(s)lāg\**-. More recently Pokorny (1959) lists *εἴληφα* under *(s)lāg\**- without explanation. Note that Chantraine reads too much into Schwyzler 1939, p. 772; did Pokorny do the same?

<sup>22</sup>) Surely no one will suggest that *εἴληφα* takes its aspiration from the 3pl. mediopassive *λελήφαται* quoted by a Byzantine lexicographer (Cramer (1835) p. 268), the date and provenance of which are unknown. (It is not Homeric, though the lexicon is entitled 'Ὀμήρου Ἐπιμερισμοί.)

<sup>23</sup>) This could have further chronological consequences. If, as I suggested above, the \*hl- of *εἴληφα* was adopted from the paradigm of *λάζομαι*, then it will have been adopted after the Mycenaean period. But since *εἴληφα* has clearly undergone the first compensatory lengthening (\*hehl- > *heil-*) and Grassmann's Law (*heilēpha* > *εἴληφα*), at least the last stages of these two sound changes should also be post-Mycenaean. On the other hand, *heilR-* could have been the "normal" reduplication for roots beginning with *hR-* for a considerable period of time, so that upon entering the paradigm of *hλαβ-heilēpha* would have acquired its *heil-* without ever having passed through a stage \*hehl-. This doesn't affect the argument concerning Grassmann's Law, but to find that sound change (still?) operating in the post-Mycenaean period is no surprise.

perfect; nor do aspirated perfects replace non-aspirated perfects already in use. As Jacob Wackernagel points out (1916, p. 190), Homeric *κεκοπώς*<sup>24</sup>) and Attic *κέκοφα* are not directly connected; the former almost certainly died out long before the latter was formed. *πέπραγα*, the already existing perfect of *πράττω*, was not superseded by *πέπραχα*, since the former is intransitive and the latter transitive. The other aspirated perfects that first appeared in the fifth and early fourth centuries B.C. were made to verbs that did not previously have active perfects.<sup>25</sup>)

Once new aspirated perfects had begun to be formed by analogy, the creation of new non-aspirated active perfects to verbs with roots in *π*, *β*, *κ*, and *γ* apparently ceased. Most of the attested non-aspirated stems are much older: *ῥοικα*, *λέλοιπα*, *λέληκα*, *πέπηγα*, *πέπληγα*,<sup>26</sup>) *σέσηπα*, *τέτηκα*, *πέφενγα*, and *πέφρικα* appear first in Homer; *ἔαγα* and *τέτοκα* appear in Hesiod, *ἔρωγα* in Archilochos, *πέπραγα* in Pindar, *κέκραγα* in Aischylos. *κέκλαγγα* does not appear until Aristophanes, but Homer has *κεκλήγώς*<sup>27</sup>) and Alkman *κέκλαγ(ε)*. *κέκριγα* appears first in Aristophanes, but such onomatopoeic verbs are rare outside of comedy, and the failure of this perfect to appear earlier can be accidental; moreover, it would not be surprising if onomatopoeic verbs were excluded from the general tendency to aspirate new active perfects. About the active perfects of *ἀνοίγω* the only thing we can say with certainty is that both *ἀνέωγα* and *ἀνέωχα* are reasonably well attested in the fourth century B.C.; putative earlier attestations are undatable or doubtful.<sup>28</sup>) It seems fair to say that there are no clear counterexamples to the tendency to aspirate new active perfects whenever possible.

Finally, it is possible that *εἴληφα* (*εἴλαφα*) is not confined to the Attic-Ionic dialect group. Though literary Aiolic and Doric yield no attestations of this stem before the Hellenistic period, and though most examples in dialect inscriptions have *η* rather than *ᾱ* and are clearly Atticisms, there is one example that might be a

<sup>24</sup>) *κεκοπών* is a plausible variant reading at N 60, but at σ 335 *κεκοπώς* is well established (cf. Wackernagel (1916), p. 189; Schwyzer (1939), p. 772); Chantraine (1973, pp. 397, 430) seems rash to conclude that we have an aorist in both passages.

<sup>25</sup>) Later in the fourth century this ceases to be true; see Wackernagel (1916), pp. 189–91; Schwyzer (loc. cit.).

<sup>26</sup>) See Chantraine (1973), p. 426. I omit from this list strictly epic verbs.

<sup>27</sup>) See Chantraine (1973), pp. 426, 430–1.

<sup>28</sup>) See Liddell, Scott, and Jones (1968) s.v. *ἀνοίγω*; cf. Kock (1880), p. 169.

genuine dialect form: the second-century Phokian pluperfect εἰλάφει, from Stiris (*IG IX-1* 36.7). Unfortunately we cannot exclude the possibility that it is an Attic koine form with local dialect coloring; as usual, we need more evidence.

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 germanischen Sprachen*. Berlin: de Gruyter.

### Νόος νοεῖν, νόημα

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In einer vielbeachteten Folge von Studien untersucht K. von Fritz die Rolle des *νοῦς* im griechischen Denken, wobei er den ersten Teil seines Werkes der Bedeutung von *νόος* und *νοεῖν* bei Homer widmet<sup>1</sup>). Dabei kommt er zu dem Ergebnis, daß *νοεῖν* das Erfassen einer komplexen Situation bedeute, im Gegensatz etwa zu *ιδεῖν* (visuelles Wahrnehmen auch unbestimmter Gegenstände) und zu *γινώσκειν* (Erkennen als identifizierendes Einordnen eines einfachen Gegenstandes). Von dem Verbum *νοεῖν* ausgehend, erklärt von Fritz sodann die verschiedenen Bedeutungen des Substantivs *νόος*. Daß dieses Vorgehen methodisch fragwürdig ist, weil sprachlich das Verbum vom Substantiv abgeleitet ist, weiß von Fritz sehr wohl, glaubt aber, sich mit folgender Begründung über alle Bedenken hinwegsetzen zu können (Anm. 37):

„Es ist sicherlich eine eigenartige Tatsache, die Erklärung erfordert, daß das Verb *νοεῖν* vom Substantiv *νόος* abgeleitet ist, obwohl dieses, wie wir gesehen haben, eindeutig eine Funktion bezeichnet, so daß wir die entgegengesetzte Beziehung zwischen Substantiv und Verb erwarten würden in Analogie zu den ähnlichen Fällen von *γινώσκειν* und *γνώμη* oder *ἐπίστασθαι* und *ἐπιστήμη*. Diese Schwierigkeit darf uns jedoch nicht davon abhalten, unsere Analyse mit dem Verb zu beginnen, zumal es durchaus möglich ist, daß das Verb trotz seiner abgeleiteten Form einen älteren Zustand in der Bedeutungsentwicklung von *νόος* erhalten hat, so wie

<sup>1</sup>) Vgl. *Classical Philology* 38, 1943, 79–93; 40, 1945, 223–242; 41, 1946, 12–34. Wir zitieren nach der Übersetzung von P. Wilpert, abgedruckt in dem Sammelband ‚Um die Begriffswelt der Vorsokratiker‘, herausgegeben von H.-G. Gadamer, Darmstadt 1968, 246ff.