The Origin of the Greek Pluperfect

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for Jay Jasanoff on his 65th birthday

The *Oxford English Dictionary* defines the rather sad word *has-been* as "One that *has been* but is no longer: a person or thing whose career or efficiency belongs to the past, or whose best days are over." In view of my subject, I may perhaps be allowed to speculate on the meaning of the putative noun **had-been* (as in, *He's not just a has-been; he's a <u>had</u>-been!*), surely an even sadder concept, did it but exist. When I first became interested in the Indo-European verb, thanks to Jay Jasanoff's brilliant teaching, mentoring, and scholarship, the study of pluperfects was not only not a "had-been," it was almost a blank slate. Largely because of Jasanoff, the situation is now changing: even so, however, with the possible exception of the (marginal) future perfect, there is still no part of the Ancient Greek verbal system that has received less scholarly attention than the pluperfect and perhaps no part that deserves it more. Further investigations are thus a "should-be," and there is every reason to expect that Jasanoff will continue to be the leading creative force in our understanding of (Proto-)Indo-European verbs for many years to come.*

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* I had the good fortune to be a senior at Yale during the year Jasanoff was a visiting professor, and it is a pleasure for me finally to offer him this particular token of affection and esteem. Jasanoff advised my 1991 undergraduate thesis on the origin of the Greek alphathematic pluperfect, and the scenario I proposed there, for which he deserves much of the credit (see in particular Jasanoff 1997a, 125, with n. 20) and none of the blame, differs from what follows in the present paper only in minor details. An expanded version appears also as Chapter IV of my 1993 Oxford M.Phil. thesis, *The Pluperfect in Homer*, supervised by Anna Morpurgo Davies. I hope someday to return, unconstrained by considerations of space, to a fuller treatment of the issues explored here, to a proper reckoning of the Homeric forms, and to an account of the semantic development of the category from archaic to (post-)classical times. My thanks go to those who attended informal presentations of this material at Yale (February 1991), Oxford (May 1993), and Harvard (April 1997) and to the audiences on more formal occasions at the following universities and conferences: the 129th An-

Although the earliest evidence for the Greek pluperfect quite clearly presents a number of interesting problems, there has never been a large-scale study, or even a great many smaller ones, on this verbal category. This neglect is curious in every way. Many linguists specialize in tense, but even those who provide elaborate discussions of the temporal structure of the classical languages as they are described by the ancients themselves (see above all Binnick 1991, 3–26) ignore the evidence of early poetry, in which pluperfects both have a different principal semantic value and play a larger role than is generally acknowledged. As for classical philologists, they routinely comment on the semantic differences in Greek between the two most common past-tense forms, the imperfect and the aorist, while largely playing down the pluperfect (though Duhoux 2000, 432–440 and *passim* is a useful recent contribution).[1] And finally, Indo-Europeanists have over the past century engaged in all too many aggressive arguments over the form and function of the perfect while tending not to think about pluperfects (they are conspicuously absent from Di Giovine 1990 and 1996), even if very recent years have seen some energetic studies of individual Greek verbs, especially 'know', by Martin Peters, Jens Elmegård Rasmussen, Peter Schrijver, Olav Hackstein, and of course Jay Jasanoff. One reason scholars do not generally think very much about the pluperfect is that (it is usually said) the proto-language did not have any such category. However, this may in fact be false, in which case generations of scholars have managed to introduce a pervasively damaging bias into the study of what has been, since the discovery of Hittite and its so-called "*ḫi*-conjugation," easily the most-studied area of the Proto-Indo-European verb, namely the perfect system.

I propose, then, to present a novel "Jasanoffian" account of the diachronic morphology of the pluperfect from Proto-Indo-European times to Archaic

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nual Meeting of the American Philological Association (Chicago, December 1997), the University of Pennsylvania (Department of Linguistics, October 2000), the University of California at Los Angeles (Program in Indo-European Studies, April 2002), and the 12th Congress of the Indogermanische Gesellschaft (Cracow, October 2004). Last but not least, my work on pluperfects has been helped by financial support from the Linguistic Society of America and Yale University (to attend the Linguistic Institute at the University of California at Santa Cruz in 1991, where Jasanoff was the Collitz Professor and I thought about thematic pluperfects under his guidance) and the Marshall Aid Commemoration Commission (to study at Oxford).

[1] Sicking / Stork (1996, 119–298) discuss in detail the semantics of the Classical Greek perfect but pay no attention to pluperfects as such (the forthcoming paper on presents and pluperfects that they cite on p. 122, with n. 1, in fact ended up being only about presents).

Greek. But rather than dive straight in, I think it important to spend some paragraphs on the sense of the pluperfect.[2] Like its counterparts in the other modern European languages (e.g., Fr. *plus-que-parfait*, It. *piuccheperfetto*, and Germ. *Plusquamperfekt*), the English term goes back to the Latin phrase (*tempus praeteritum*) *plus quam perfectum*, literally "(past time) more than completed," which is itself a calque on the Greek grammatical term (χρόνος) ὑπερσυντέλικος,[3] literally "hyper-completed (time)." What exactly does this mean? It is not easy, as I have discovered, to get people to define *pluperfect* – speakers of English usually give an illustrative example like "had been" or "had done" rather than saying anything about anteriority[4] – but when pushed, they frequently arrive at the idea that the pluperfect is associated with the distant past. This is certainly what most students in elementary Latin and Greek classes come in believing, and there is even support for the idea from ancient grammarians: Priscian (5th/6th cent. A.D.) uses the phrase *iam pridem* 'long ago' (see *OLD* s.v. *prīdem* 3) in his definition of the Latin pluperfect (*Inst.* 8.39 = *Gramm. Lat.* II, p. 406 Hertz), following such authorities as Apollonius Dyscolus (2nd cent. A.D.), who tells us that the pluperfect in Greek describes things that happened ἔκπαλαι (*Syntax* 205b = *Gramm. Gr.* II/2, p. 287 Uhlig) 'long, long ago'.[5] What this adds up to is that educated

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[2] See Binnick 1991, 544–545 (index s.v. "Pluperfect tense") and *passim*. Binnick's book provides a consistently enlightening treatment of tense, both in theory (indeed, many different semantic theories, ancient and modern) and with reference to actual data.

[3] The word is given as oxytone by some sources.

[4] One difficulty, which dictionaries and reference works tend not to recognize, is that in many languages the semantic category "pluperfect" and the morphological category of the same name are not wholly overlapping: whatever exactly the formal temporal representation of Eng. *had been* may be in a sentence like *Once he had been to the doctor, he felt much better*, the "same" verb has, at least on the surface, a different sense when it is used as a modal (e.g., *If he had been to the doctor, ...*) or in indirect speech (e.g., *She said that he had been to the doctor*). And of course it is usual in most cases not to employ the pluperfect for anterior time (e.g., *After he went to the doctor, he felt much better*).

[5] While Priscian's *iam pridem* could in context mean just 'already previously' (thanks to Bob Kaster for discussing this with me), it seems likely, in view of his dependence on Apollonius, that it has the same sense as ἔκπαλαι. Cammerer (1965, 181–182) emends and translates the passage in Apollonius, in which the grammarian explains that ἐγεγράφειν 'I had written' is καὶ ἔκπαλαι γεγονότα 'schon längst Gewordenes', as opposed to the corresponding aorist and imperfect forms (see also Householder 1981, 161). (LSJ s.v. ἔκπαλαι wrongly gives only the meaning 'for a long time'.) Berrettoni (1989b, 49–50) discusses the term ὑπερσυντέλικος and writes, "It seems to me necessarily to follow that the *excess* of completeness implied by the use of ὑπερ-

folk are likely to have the impression that pluperfects are found only in contexts of extreme anteriority, which must, furthermore, be rather uncommon.

However accurate or inaccurate such an assessment may be for English or Latin (in which the pluperfect looms large and does usually indicate anterior past[6]), it is at best a half-truth when applied to Greek and less than that when applied specifically to Homer.[7] Leaving aside for the moment the question of their meaning, Homeric pluperfects are usually considered by experienced Hellenists to be rare beasts that lumber in from time to time without actually mattering very much. Yet this is not really fair: while it is impossible to take an uncontroversial tally of the number of pluperfects in the *Iliad* and the *Odyssey*, by one count of mine there are 558 such forms.[8] That this is not an insignificant number becomes clear when one realizes that it comes to, on average, one pluperfect every 50 verses; put another way, there will be slightly more than one pluperfect on any given opening of the *Oxford Classical Text* of Homer, whose two great poems total 27,803 verses.[9]

Of these 558 forms, 330 are active (to 41 different verbs) and 228 are medio-passive (to 62 verbs). A rather more interesting, not to say surprising, statistic is this: quite a number of pluperfect forms – 112 in all (57 active, 55 medio-passive), built to 40 different verbs (14 active, 26 medio-passive) – are attested as such in Homer without corresponding simple perfects. I do not, of course, mean to suggest that these perfect forms did not exist, but only wish to point out that for contextual or whatever other reasons, it is perfectly possible to imagine a text, or group of texts, in a given language (Greek, say) in which one set of forms, or one category, is used significantly more than, or even, perhaps, to the exclusion of, another.[10] For example, it is well known that the second-millennium Linear B tablets contain more perfect participles than finite perfect forms,[11] witness the regularity with which the semantically similar *a-ra-ru-ja* 'fitted, joined, bound (fem.)' (active, to ἀραρίσκω) and *de-de-me-no* 'bound (nt.(/masc.))' (medio-passive, to δέω, δέομαι) show up. In Homer, too, perfect participles are common (there is ample evidence for ἀρηρώς, etc.; δεδεμένος* happens not to be attested), but what is truly striking about the distribution is that there are six examples of pluperfect ἀρήρει, etc. (5x *Il.* [including ἐπαρήρει (12.456)], 1x *Od.*) and

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seven of δέδετο, etc. (3x *Il.*, 4x *Od.*) – while the would-be finite perfects ἄρηρε* and δέδεται* are entirely absent.[12] The immediate moral of this story is that pluperfects obviously filled a need in early Greek. The question is, What was it?

Without providing anything like a full answer, it is still possible to come up with a few observations. In view of the use of the pluperfect for anterior time in the later language,[13] it is perhaps surprising – if well known – that the usual way to indicate time further back in the past than some already-stated past action is to employ the aorist, as for example in the following passage: οἱ μὲν κακκείοντες ἔβαν οἰκόνδε ἕκαστος, / ἦχι ἑκάστῳ δῶμα περικλυτὸς ἀμφιγυήεις / Ἥφαιστος ποίησεν (*Il.* 1.606–608) 'and they [*scil.* the gods] went [aor.] to rest, each to his own house, where widely renowned, lame Hephaestus had built [aor.] a dwelling for each'.[14] However, the pluperfect can indicate anteriority in Homer, though this is almost never stated explicitly.[15] Two instances follow, the one active and the other medio-passive: ὡς ἴδε χῶρον ἐρῆμον, ὅθ’ ἕστασαν ὠκέες ἵπποι (*Il.* 10.520) 'when [Hippocoön] saw [aor.] the place empty, where the swift horses had stood [plpf.]' and νῦν

δὴ καὶ σίτου πασάμην καὶ αἴθοπα οἶνον / λαυκανίης καθέηκα· πάρος γε μὲν οὔ τι πεπάσμην (*Il.* 24.641–642) 'and *now* I [*scil.* Priam] have tasted [aor.] food and let flaming wine down [aor.] my throat; but *previously* I had tasted [plpf.] nothing' (note the fine contrast between the aorist and the pluperfect of the same verb, πατέομαι 'partake of, taste').

Still, the fact remains that most pluperfects in Homer do not indicate anterior time but rather stand in relationship to imperfects the way perfects do to presents: to quote the lovely phrase of Basil L. Gildersleeve, the pluperfect "hunts in couples with the imperfect."[16] In other words, since the majority of perfects in Archaic Greek have presential function, it stands to reason that narratives of current events largely consist of presents and presential perfects and those of past actions of imperfects and imperfect-like pluperfects. This is what we have, for example, in the following description of Calypso's isle: πῦρ μὲν ἐπ’ ἐσχαρόφιν μέγα καίετο, τηλόθι [*v.l.* τηλόσε] δ’ ὀδμὴ / κέδρου τ’ εὐκεάτοιο θύου τ’ ἀνὰ νῆσον ὀδώδει / δαιομένων (*Od.* 5.59–61) 'and a great fire was blazing [impf.] on the hearth, and the smell of split cedar and citron-wood was spreading [plpf.] far over the isle as they burned'. The form ὀδώδει is used because in Homer the way to say 'smell' is not with the (unattested) present ὄζω* but rather with the perfect, ὄδωδε* (though as it happens the perfect itself is not attested, only the pluperfect; compare my remarks above). The imperfect καίετο and the pluperfect ὀδώδει, though of different grammatical categories, thus have the same function.[17]

As we shall see, the notion of the pluperfect as the "imperfect of the perfect" – so easy to accept as a synchronic tendency in Homer – is what pro-

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[12] Jasanoff (1978, 82) makes a passing suggestion as to how the "relative prominence of the perfect middle participle and pluperfect middle in Greek" could have come about. As for active pluperfects, note Chantraine 1927, 15–16 on 3sg. βεβλήκει(ν) '(had) struck', which appears 12 times in Homer (he says 11) to the exclusion of a simple perfect (see on this also McKay 1965, 3, with 18 n. 12, against Wackernagel [1904, 5]). Chantraine calls βεβλήκει "[l]e cas le plus embarrassant" (1927, 15) of a resultative form with aoristic function in the perfect system, and while I cannot accept his own very tentative suggestion that underlying it is an old *aorist* βέβλήκε(ν), it can indeed not be accidental that the verb with the most unusual semantics is morphologically a (surely comparatively recent) kappa-formation.

[13] The extent of this usage is controversial, but for some examples and discussion, see Rijksbaron 1976, 117–119, 1988, 243–244, and 2002, 38 (Herodotus) and McKay 1980, 34–35, with notes on 46–47 (non-literary papyri); compare also Schwyzer / Debrunner 1950, 288–289. Humbert (1960, 150–151) and Carrière (1967, 59) are overly resistant (compare also Katselou 2004, 207–218, esp. 208).

[14] Euler (1990, with many references) discusses the ways in which anteriority is expressed in early Indo-European languages, notably Indo-Iranian, Greek, Armenian, and Slavic; it seems certain that one of the functions of the aorist in Proto-Indo-European was to express the anterior past. Euler cites *Il.* 1.606–608 on p. 141.

[15] Euler (1990, 142–143) admits this grudgingly, stating that "als Paradebeispiel wurde immer wieder βεβλήκει [see fn. 12] angeführt" (142). The example of βεβλήκει that he goes on to cite (*Od.* 22.286) is not, however, well chosen; *Il.* 4.108 is much better. (See, however, Chantraine 1953, 199–200.) Compare also Rasmussen 2000, 449–450 – interesting and witty (but read βεβλήκει for his "βέβληκε" [450]).

[16] Gildersleeve (1902, 253) writes, "The Greek pluperfect is to the imperfect what the perfect is to the present. It hunts in couples with the imperfect and aorist, and should be studied in connexion with its comrades." In archaic times, however, the pluperfect does *not* generally hunt with the aorist; I cannot go into details here, but the clearest exceptions are certain instances of the active forms βεβλήκει(ν) (see fnn. 12 and 15), (ἐ)βεβήκει 'went', ἄνωγε(ν), etc. 'ordered, commanded; bade', and (ἐ)γέγωνε(ν), etc. 'called out, shouted', i.e., two prominent kappa-formations and, interestingly enough, the two best-attested thematic forms (for the link, see Schwyzer 1939, 777). The only article on the semantics of the Homeric pluperfect of which I am aware is Berrettoni 1972a (the author comments on what he sees as the unusual aoristic value of κέχυτο 'poured' on pp. 179–182); see also Berrettoni 1972b on the Homeric perfect.

[17] Another situation in which Homer is in effect forced to use a pluperfect is the simile: in *Il.* 10.183–188, for instance, ὄλωλεν (186) '[sleep] perishes' is picked up by ὥς ... ὀλώλει (187) 'thus ... did [sweet sleep] perish'. Of course (extended) similes are generally considered on linguistic grounds to belong to a rather late stage of the Homeric recension (the classic treatment is Shipp 1972, 208–222 and *passim*).

vides, in my view, the key to this interesting and understudied category's diachronic analysis. Consider the standard third-person singular endings of the active and medio-passive pluperfect and perfect in both Homeric and Attic Greek, as illustrated by the verbs βαίνω 'go' and τείνω 'stretch', respectively:

Hom. plpf. (ἐ)βεβήκει ~ pf. βέβηκε   Att. plpf. ἐβεβήκει ~ pf. βέβηκε

Hom. plpf. (ἐ)τέτατο ~ pf. τέταται   Att. plpf. ἐτέτατο ~ pf. τέταται.

The active pluperfect ending -ει corresponds in the perfect indicative to -ε – how exactly is the principal subject of this paper – while, far more transparently, the medio-passive pluperfect ending -το corresponds to perfect -ται.[18] The only difference of any note between the epic and Attic forms is that the augment is not an integral part of the early pluperfect and is in fact more often than not left off, at least according to the great Alexandrian grammarian and textual critic Aristarchus (2nd cent. B.C.).[19] Now, while the medio-passive forms are of considerable interest, their morphology is thoroughly unsurprising: the juxtaposition of a primary ending -ται and a secondary ending -το is both wholly familiar from elsewhere in the verbal system and certainly not of extreme antiquity, for as is well known, the so-called perfect "tense" in Proto-Indo-European was not originally a tense at all, but rather a stative formation, and it is clear that medio-passives could not have arisen *en masse* – though Jasanoff (2003) now argues persuasively that some significant forms did arise quite early – before the perfect had developed semantically in such a way as to make it seem like an active, transitive (though not yet resultative) form in need of a medial correspondent (compare Chantraine 1927, 47–70).[20] In the Indo-European-based analysis that follows, I therefore con-

centrate on the active desinences and in particular on the third-person singular ending -ει.[21]

It is an embarrassing anecdotal truth that the Greek verbal paradigm most likely to fluster even a seasoned Hellenist or linguist is the active pluperfect as a whole. There are perhaps five reasons for this.[22] The first I have already stated, namely that pluperfects are (wrongly) rumored to be vanishingly rare and are thus easy to neglect. Second, there are a number of variants in the Attic paradigm, as can be seen from the inflection of the pluperfect of the model verb λύω 'loosen, undo':

ἐλελύκειν (literary -η)   ἐλελύκεμεν (later -κειμεν)

ἐλελύκεις (literary -ης)   ἐλελύκετε (later -κειτε)

ἐλελύκει(ν)   ἐλελύκεσαν (later -κεισαν).

Third, the Attic paradigm, while quite easy to derive from its predecessor by means of a couple of inner-paradigmatic analogies, is nonetheless rather different from the usual one in Homer, on which I am focusing and which I illustrate here with the verb generally chosen for this purpose, (ἐ)πεποίθεα 'believed, trusted in' (to πείθω 'persuade'):

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[18] I omit any discussion (or regular citation) of the nu-movable, which on no account plays a prominent role in the Homeric (plu)perfect, though it is curious that the only forms that ever seem to have it are precisely those already highlighted in fnn. 12 and esp. 16, namely kappa- and thematic formations. García Ramón (1990, 13–15, with notes on 19–20) invokes the nu in his explanation of 3sg. ἔφθιεν (*Il.* 18.446) as an old unaugmented pluperfect (< *ἔφθιε(ε)) with a meaning something like '[Achilles] was wasting away'.

[19] See Chantraine 1958, 481–483, as well as, e.g., Bottin 1969, 86. Bottin (1969, 124) reports that of his 406 Homeric pluperfects (see fn. 8), 75 are augmented, 302 are not, and 29 are unclear; the rather different picture in Blumenthal 1975, 75–76 is based on far too small a sample. For the possible lack of the augment in the verb 'know', see fn. 64.

[20] Interestingly, however, perfect middle forms are more common in Homer than perfect actives (see, e.g., Chantraine 1958, 431). A possible starting point for medio-pas-

sive (plu)perfect forms in Greek is Hom. 3sg. ἔστο 'wore', synchronically an anomalous pluperfect of ἔννῡμι 'dress' but originally just an imperfect middle to the Proto-Indo-European root *ᵘes- (see, e.g., Watkins 1969, 131, Eichner 1970, 8, and for details of the reconstruction now also Jasanoff 2003, 50). Recent remarks on the development of the perfect middle are to be found in, among many other works, García Ramón 1990, Sicking / Stork 1996, 119–298, esp. 130–137, and Jasanoff 2003, 43–45 and *passim*, with the last making a very interesting case for the beginnings of this category in the proto-language (see Jasanoff 2003, 45, with n. 38, and 228–233).

[21] Numerous scholars have commented on the ease with which a pluperfect middle could be created – and on the frequency of its attestation – while in the same breath expressing puzzlement over the active: see, e.g., Chantraine 1927, 56 and 1958, 437, Watkins 1969, 131, and Tucker 1990, 297–298.

[22] The best overviews of Greek pluperfects remain Mekler 1887, 43–90 (emphasis on Homer) and Schwyzer 1939, 776–779, though not everything they report stands up to scrutiny; Ringe (1984, [II.] 508–510 and *passim*) presents an outstanding survey of the epigraphic evidence. See also Chantraine 1958, 437–439. As discussed in detail in what follows, there are three basic kinds of pluperfects in Archaic and Classical Greek: thematic, athematic, and alphathematic. Dominant are the athematic and especially alphathematic types, which are paradigmatically linked (see below in the text); by contrast, thematic pluperfects seem to be confined to epic diction and to a few (generally non-metrical) inscriptions in Aeolic and Cyprian. See below also for the evidence for "super-thematic" forms (fn. 27), "mixed" paradigms (i.e., ones with both thematic and alphathematic third-person singular forms; fnn. 26 and 27), and the special third-person singular form of the verb 'know'.

(ἐ)πεποίθεα		(ἐ)πέπιθμεν
(ἐ)πεποίθεας	(ἐ)πέπιστον	(ἐ)πέπισθε
(ἐ)πεποίθει (< -εε)	(ἐ)πεπίστην	(ἐ)πέπισαν.[23]

Fourth, while the dual and plural forms in the usual Homeric paradigm are simple athematic forms, the singulars are what is now normally known as "alphathematic,"[24] and the internal preteritalizing formant -ε- that is the sole mark of distinction between the unaugmented pluperfect and the perfect, at least in the critical first- and third-person singulars (πεποιθ(ε)α and πεποι-θ(ε)ε), looks extremely odd when considered against the background of virtually all other verbal formations in Greek. And fifth, there are also a number of Homeric pluperfects that are neither athematic nor alphathematic, and sorting these out has proved an especially woolly problem. For one thing, there is the inflection of the most common pluperfect of all, namely 3sg. ἤδη 'knew', to οἶδα (PIE *ueid- 'see'): whereas 'knew' behaves largely like the usual alphathematic/athematic-type (see below, with fn. 59), the desinence – only in Homer – of the single best-attested form, the basic third-person singular, is -η rather than -ει, an anomaly found in no other verb and one that clearly requires an explanation.[25] Additionally, there are a number of thematic pluperfects, most notably 1sg. ἄνωγον, 3sg. ἄνωγε(ν), 3pl. ἄ/ήνωγον 'ordered, commanded; bade': these verbs – which are attested only in these three persons, frequently express speech or noise, and have a limited but very interesting distribution in the sources (basically "Achaean": Aeolic plus (Arcado-)Cyprian)[26] – make up a particularly difficult class in view of the fact

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[23] Not all of these forms are actually attested: indeed, Homer has no second-person dual or second-person plural pluperfects at all (see, e.g., Mekler 1887, 47).

[24] The term, now widespread, goes back to Rix (1976, 207: "alpha-thematisch"), who, however, does not use it in the first place of pluperfects.

[25] There is no evidence for 3sg. ἤδη outside Homer. Hackstein (2002, 254) accidentally cites ἤδη in Soph. OT 433 as both a first- and a third-person singular form: in fact it is the former and – like ἐλελύκη (see above in the text) – simply shows contraction from (ἤδ)εα (see fn. 59). I find it very unlikely (pace, e.g., Chantraine [1961, 202]) that the second eta of 2sg. ἤδησθα in Classical Greek (supposedly clearest in Soph. Ant. 447, where, however, it is just C. G. Cobet's universally accepted conjecture for ἤδεις τά of the codices) is old (what appears to be the same form is a Homeric hapax in Od. 19.93; see fn. 59); it is easy enough to think of analogical models for its creation. The occasional instances of 3sg. ἤδεε(ν) in Homer (Il. 2.409+, though only Il. 18.404 and Od. 23.29 are metrically guaranteed [unless one were to print ἤδε·]; Od. 23.29 shows that Chantraine [1958, 438] is wrong to state that ἤδεε(ν) always forms the first foot) are certainly remodeled on the basis of the usual alphathematic ending.

[26] See Schwyzer 1939, 777 and Chantraine 1958, 438–439 for helpful accounts; on the

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that in the third-person singular, the perfect and (unaugmented) pluperfect forms are identical, both ending in a simple -ε.[27]

"Achaean" nature of pf./plpf. ἄνωγα/ἄνωγον specifically, see Ruijgh 1957, 128–130 (with particular reference to C. M. Bowra). In fact, thematic paradigms tend to be "mixed," but the more-than-occasional alphathematic forms, e.g., 3sg. ἀνώγει (Il. 2.280+), are evidently secondary (compare ἤδεε(ν); see fn. 25). In theory, it is possible that ἄνωγον, etc. are imperfects to the secondary present ἀνώγω* (cf., e.g., 3sg. pres. ἀνώγει [Il. 6.439+] and 1sg. fut. ἀνώξω [Od. 16.404]; compare Nussbaum 1987, 249, with n. 53), a form, be it noted, that seems in turn to owe its very existence to a backformation from the thematic pluperfect (Chantraine [1961, 185] and Ringe [1984, (I.) 128] suggest more loosely that it is a backformation from the perfect): an oft-cited parallel for this process in Sanskrit is Ved.+ 3sg. pres. act. bibheti 'is afraid', which is formed from RV 3sg. plpf. act. abibhet 'was afraid' (see below, with fn. 39) and replaces RV 3sg. pres. mid. bhayate 'becomes afraid, is afraid' (see above all Wackernagel 1907, 305–309 and Cardona 1992). It is important to stress, though, that even if some early instances of ἄνωγον are in fact imperfects (I do not know how one would be able to tell), the thematic pluperfect is definitely a real category: unlike ἤδη, which is purely Homeric, there is incontrovertible evidence for thematic pluperfects elsewhere, and in non-literary language (see above all Ringe 1984, [I.] 127–128 and [II.] 508–509). Most remarkable of all is the appearance of two such forms in Cyprian, 3pl. a-no-ko-ne (i.e., ἄνωγον) in the famous early 5th-cent. B.C. Idalion Bronze (Masson 1983, 236–237 and 239 [= ²ICS 217 A.2]) and 1sg. or 3pl. o-mo-mo-ko-ne (i.e., ὀμώμοκον [vs. Att. 3pl. ὠμομόκεσαν in Xen. Hell. 5.1.35]) 'I/they swore/had sworn' in a late-4th-cent.(?) B.C. text from Paphos (Masson 1983, 105 [= ²ICS 8]; for the dating, see Masson 1980, 77). As Ringe (1984, [I.] 128) notes, it is very likely that a-no-ko-ne is a pluperfect since "we have no evidence of such a remodelling [i.e., to ἀνώγω] in Cypriote"; and in any case, o-mo-mo-ko-ne "cannot be anything but a pluperfect." (The East Ionic form 3pl. ηνωγον in an inscription in elegiac verse from ca. 350 B.C. [Inscr. Prien. 196.5] is a Homerism: see Ringe 1984, [I.] 93.) For further details, see below in the text.

[27] Note, too, "super-thematic" 3pl. ἠνώγεον (Il. 7.394, with synizesis) – a "développement 'récent'" (Chantraine 1958, 439) whose background is treated most fully in Nussbaum 1987, 248–250 – and the varia lectio ἐμεμύκεον (Od. 12.395, with synizesis: instead of 3sg. (ἐ)μεμύκει or – in my view older; see below in the text – (ἐ)μεμύκεν 'mooed, lowed'), as well as *ἐλελήκεον, a form of λελη/ακ- (Il. 22.141 and Od. 12.85) 'scream' that Nussbaum (1987) argues (elegantly, in my opinion, despite the objections of Hackstein [2002, 154–156]) lies behind the morphologically and semantically problematic hapax 3pl. ἐπελήκεον (Od. 8.379). (Chantraine [1958, 347–348] notes also γεγώνευν [Od. 9.47 (3pl.) and 12.370 (1sg.)] and ἐγεγώνευν [Od. 17.161 (1sg.), with v.l. ἐγεγώνεον], which he takes to be secondary imperfects based on the old thematic pluperfect 3sg. (ἐ)γέγωνε(ν) 'called out, shouted' [less common than ἄνωγε(ν), etc. but of the same sort and with a similar meaning (and likewise occasionally secondarily alphathematic: ἐγεγώνει)]; see also Nussbaum 1987, 238 n. 23 and 248–250, as well as Ringe 1989, 146–147 n. 13.) This type cannot be motivated

Let us now turn seriously to the desinences of the active pluperfect, and in particular to the singulars, the only part of the Greek verbal system without even the beginnings of a convincing historical explanation. Before presenting my own solution, I must argue at some length against the one scenario that has gained any acceptance, that of the late Nils Berg, who in 1977 published what is by far the most detailed and carefully argued discussion of the problem.[28] Although Berg gives a fine account of the failings of the many previous analyses of the Greek pluperfect and then dismisses them with good reason (see Berg 1977, 218–222 and *passim*, with 259 n. 24), he, like many before him (and some since: e.g., Sihler [1995, 578]), acquiesces in the belief that the apparent peculiarity of the forms makes it necessary to explain the category as an inner-Greek development. This is in principle possible, of course, but Berg's scenario, which I summarize here in tabular form (compare Berg 1977, 233–240, esp. 238–240), fails on a number of levels and is ultimately untenable:

		1sg.	2sg.	3sg.	
(α)	PIE	$*-h_2e >$	$*-th_2e >$	$*-e$	[Undifferentiated perfect-*cum*-pluperfect]
(β)		$*-a$	$*-t^ha \rightarrow$	$*-e$	[Regular phonological change]
(γ)		$*-a$	$*-as$	$*-e \rightarrow$	[Replacement by analogy to the aorist]
(δ)		$*-a \rightarrow$	$*-as \rightarrow$	$*-e-\emptyset$	[***Reanalysis after 3sg. $*-s-t >$ $*-s-\emptyset$ in the sigmatic aorist***]

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purely by meter if the 4th-cent. B.C. Phocian hapax 3pl. εφεστακεον (*Delph.* III(5) 20.39) 'were in charge' (for the normally thematic forms of the verb, see below in the text) is probative (see Ringe 1984, [I.] 204–205 and [II.] 508–509 and also 1989, 146 n. 13). Beckwith (2004) has recently discussed all these forms (though he misses ἐμεμῡκεον), invoking ἠνώγεον as a significant form in the rise and spread of the Greek pluperfect; I consider most of his speculations misguided – in particular, his belief that "[o]ur best comparative evidence [What is it? – JTK] suggests that the early Greek pluperfect was thematic" (79) – but he and I certainly do agree on the importance of recognizing a semantic difference between thematic and alphathematic forms (see below in the text).

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Berg's speculations are noted in Meier-Brügger 1992, 55 and Szemerényi 1996, 299 n. 24; mentioned with both praise and reservations in Beckwith 2004; cited approvingly but without comment in Tichy 1983, 70 n. 14 and 373 n. 146, Cardona 1992, 12–13 n. 19, and Kortlandt 1994, 1 n. 1; and lauded in Ringe 1989 (where Berg is reported to have "brilliantly elucidated" the pluperfect [144 n. 6]) and also Kimball 1991, 150–151. It has not been widely noticed that a similar view is found in Perel'muter 1977, 68–78 (but see M. Peters, *IC* 24b [1978] #376, as well as Szemerényi 1996, 299 n. 24 and Rasmussen 2000, 447).

(ε)	Hom.	-ε-α	-ε-ας	$*-e-\emptyset \rightarrow$	[Initial extension of the preteritalizing formant -ε-; 3sg. $*-e(-\emptyset)$ > pf./thematic plpf. -ε]
(ζ)		-ε-α	-ε-ας	-ε-ε >	[Final extension of the formant -ε-, whence 3sg. alphathematic plpf. -ε-ε]
(η)		-ε-α	-ε-ας	-ει	[(Quasi-)regular contraction to 3sg. -ει].

Berg starts off (α) with the common – though happily no longer universal – assumption that Proto-Indo-European had no special category "pluperfect" and that the familiar set of endings 1sg. $*-h_2e$, 2sg. $*-th_2e$, and 3sg. $*-e$ are undifferentiated perfect-*cum*-pluperfects. These develop regularly into, respectively, $*-a$, $*-t^ha$, and $*-e$ (β), and the second-person form is changed to $*-as$ by analogy to the aorist (γ). So far so good, but it is in the next step (δ) that Berg unveils his original trick: once the third-person singular desinence $*-t$ has been lost by regular phonological change in the sigmatic aorist, with the result that the analysis of this form is $*-s-\emptyset$, the ending $*-e$ of the perfect/pluperfect is reanalyzed as having a zero-ending as well. The result (ε), which is a stage of Greek that we may call Homeric, is that the $*-e-$ of the third-person singular – formerly the ending but now some sort of pre-desinential element – is mechanically added in front of the endings of the other two singular forms (in line with the tendency sometimes known as "Watkins's Law"). According to Berg, the third-person singular form $*-e(-\emptyset)$ is what develops into both the perfect and the thematic pluperfect. And finally – for in Berg's view a distinct pluperfect is so late that it is, in his words, "*in statu nascendi*" at the time Homer was composing (1977, 205 and 231) – the now-anomalous third-person form is fitted out with its own ending, another $*-e$, and the result (ζ) is the alphathematic singulars 1sg. -ε-α, 2sg. -ε-ας, and 3sg. -ε-ε, whence also (η) contracted 3sg. -ει.[29]

The essentials of Berg's picture of the origin of the Greek pluperfect have never been subject to detailed, point-by-point criticism in the 30 years since its publication. This is very odd, for – despite his strong appeal to some admittedly striking and not easily explicable metrical facts about the placement in the hexameter of pluperfects in -ει – there are any number of reasons why Berg can hardly be correct.[30] First of all, the idea that the loss of the final

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In other words, (ε), (ζ), and (η) are all Homeric: note the subtitle of Berg's paper, "Ein Beispiel von systemimmanenter Instabilität und ständigem morphologischen Wandel." See fn. 30.

30
Defenders of Berg will object that the metrical aspect of his argument deserves more

than a footnote. The issues are complex enough, however, for a separate paper (for one thing, the question is intimately connected with the origin of hexametric verse and the date at which it came to have its canonical form, a subject on which I have no strong opinion but on which Berg wrote a number of influential papers, beginning with Berg 1978; see also, e.g., Berg / Haug 2000, as well as Haug / Welo 2001, with references), and I believe that the objections to Berg's general scenario raised in the coming two paragraphs in the text are at any rate too severe to be overcome. In brief, the prototypical third-person singular alphathematic pluperfect (e.g., (ἐ)πεποίθει) has the metrical shape (◡) ◡ – –, and as is well known, the majority of such pluperfects (e.g., all 37 instances of (ἐ)βεβήκει [including 3x ἀμφιβεβήκει; compare Mekler 1887, 63 and Berg 1977, 228–231, with 259 n. 29) are hexameter-final ((◡) ◡ – ×#); all those that are not appear before the bucolic caesura (see most conveniently Shipp 1972, 170), which in turn implies that they should actually be scanned (◡) ◡ – ◡ ◡ (compare O'Neill 1942, 145 and *passim* and see also Nussbaum 1987, 248 n. 47), i.e., pronounced and written with uncontracted -εε, as is obviously not possible in the sixth foot. Given these facts, Berg suggests that the verse-final predilection of the alphathematic pluperfect is no less than the critical indication that even still during the period of Homeric composition this category was simply an undifferentiated perfect-*cum*-pluperfect of the shape ◡ – ◡ (e.g., πέποιθε) and was in the process of acquiring its new ending. This sounds good – indeed (though Berg does not note this fact) there is a correlation between the placement of the pluperfect of a given verb at verse-end and the placement of its corresponding amphibrach perfect in the same position – but among other problems, it cannot account for why, aside from ἄνωγε(ν) (on which Berg [1977, 227–232, with notes on 259] naturally concentrates), the Homeric third-person singular thematic and mixed pluperfects and their corresponding perfects seem to be distributed rather differently (compare Mekler 1887, 63–64; for a quick summary, see Hackstein 2002, 261–262): particularly striking are the facts about plpf. (ἐ)γέγωνε(ν) (straddling the second and third feet: *Il.* 14.469; before the bucolic caesura: *Il.* 24.703 and *Od.* 8.305), plpf. ἐγεγώνει (always verse-final: *Il.* 22.34 and 23.425 and *Od.* 21.368), and pf. γέγωνε (always straddling the fourth and fifth feet: *Od.* 5.400 = 9.473 ≅ 12.181 ~ 6.294). Neither Berg nor I can easily explain exactly how -εε (a sequence that contracts in Homer much more frequently than -εα(-); see Bechtel 1908 and Shipp 1972, 148–189 for all the details) could have gotten into the hexameter's final foot in the first place (Berg [1977, 230] merely cites a general, and not especially apt, remark of Chantraine [1927, 59] on this point), but I stress that the ending need not be a very recent creation: Chantraine (1958, 40) provides a list of verbs in -ει that show contraction, "souvent dans des formules, tout particulièrement à la fin du vers" (including χόλος δέ μιν ἄγριος ᾗρει# [2x *Il.*, 1x *Od.*] 'and fierce anger took hold of him/her' [compare Shipp 1972, 156, with n. 1]); βεβήκει, though a kappa-pluperfect and therefore probably not terribly old as such (see on this Berg 1977, 259 n. 29), shows up verse-finally in one of the most linguistically (or, just possibly, metrically) archaic passages in Homer (*Il.* 16.856–857 = 22.362–363, where the famous form ἀνδροτῆτα 'manhood (acc.)' is probably to be scanned ◡◡ – ◡); and finally, the word αἰεί 'always' is very frequently verse-final and – if indeed it goes back to an old locative like PIE *h₂(e)i-u̯-es-i, as many have thought, rather than di-

stop in the sequence *-s-t of the sigmatic aorist could give rise to the analysis of the ending *-e# (a bare vowel) as *-e plus some null element is unbelievable both structurally and semantically (compare now Beckwith 2004, 79). I doubt that I have to say any more about the implausibility of the analogy's formal basis; as for the matter of meaning, while it is true that there are some signs of the morphological influence of the aorist on the (plu)perfect (e.g., 2sg. -(ε-)ας; compare now Dunkel 2004, 55 and *passim*), it remains the case, as I have already noted, that there are many more early pluperfects that function more or less like imperfects than those that one would be inclined to call aorist. (Given that pluperfects typically have an "imperfective" function and given that Berg's third-person singular form would at a critical stage have ended in *-e, just as in the imperfect [< *-e-t], one might well have thought that such a scenario would give rise to thematic pluperfects [compare even Berg 1977, 235–236]. But this is precisely what does not generally happen: thematic pluperfects – which, unlike Beckwith [2004], I emphatically do not believe are of critical importance [see fn. 27] – form a very small class![31]) Another argument against Berg is that introducing a hiatus-inducing "internal suffix" *-e[32] would be a very odd thing for speakers of Greek or most other languages to do, and there simply are no good examples in the history or prehistory of Greek in which an entire category is created by means of a sort of infixation or in which the morphological distinction of a category (in this case the pluperfect from the perfect) relies on the (active) creation of the notoriously unstable and cross-linguistically avoided vocalic hiatus.[33] On

rectly to a *u*-stem dative *h₂ei-u̯-éi – reflects the contraction of two vowels across an *s, as I shall suggest does also our pluperfect ending.

[31] For the sake of completeness, it should be noted that another path speakers might have gone down, but did not, is to build up a new "Latin-looking" perfect according to the following analogy: 3sg. impf. (ἔ)λειπε : 3sg. pres. λείπει :: 3sg. plpf. *(e)leloipe : 3sg. pf. X, where X = *leloipei (whence, then, 2sg. *leloipais and probably 1sg. *leloipai); compare the (overly rigid) remarks of Cowgill (1979, 28–30 and *passim*) on, among other things, the non-use of the *hic et nunc*-particle with perfect stems (see also Cardona 1992, 8–10, with 13 n. 20, and now Jasanoff 2003, 11–13).

[32] Unlike an infix, which properly speaking imposes itself within a root, my term "internal suffix" is a diachronic designation that refers to an element added between already existing morphological components: given two suffixes X and Y, one may thus distinguish between the derivational processes *AX → AX-Y (Y is a simple suffix) and *AX → A-Y-X (Y is an internal suffix).

[33] Lejeune (1972, 244) notes a very few cases of hiatus that "résultent directement, en grec même, de la juxtaposition de deux éléments morphologiques." Jasanoff (1991a, 116–121 and *passim*) neatly disposes of one old line on the provenance of the so-

general principles, then, the hiatus between the vowel -ε- and the endings 1sg. -α, 2sg. -ας, and 3sg. -ε in the pluperfect is most likely to have come about through the comparatively late regular intervocalic loss of a *u̯, a *i̯, or an *s.

In addition to all this, though, there are some even more serious objections. For example, in Berg's scenario, it would seem that whether a verb in Homer has a thematic or an alphathematic pluperfect is a matter of chance. This is surely infelicitous (compare Beckwith 2004, 78), for (as noted above) the majority of thematic pluperfects are verbs of speech or noise (*verba dicendi vel sonandi*), and such verbs are clearly semantically unusual in the perfect system as a whole in not being originally statives (*pace* Brugmann [1904, 493], who translates 3sg. pf. μέμῡκε 'moos, lows' as "er ist ins Brüllen gekommen und ist nun im Brüllen drin"!). Furthermore, Berg cannot explain the usual ending of ἤδη, the pluperfect *par excellence*, and rejects what seems to me and nearly everyone else quite obviously the *lectio difficilior* in favor of the lame view that the eta is a quirk of Aristarchus. This is all highly undesirable, for the correct explanation of the origin of the active pluperfect should obviously be able to account for the really quite coherent distribution of the various kinds of singular desinences: alphathematic in most forms, the majority of which are old statives; alphathematic also in the stative verb 'know', which has, however, one striking oddity; and thematic in a very few forms, among them some prominent non-stative verbs of speech. In view of all this, we are forced to reject Berg's proposal, and I suggest also that we go back to the very beginning and ask ourselves, as for example Rasmussen (2000) now does, whether Berg and many others might not in fact be wrong to take as their initial assumption that Proto-Indo-European could not have had some sort of formation that one might refer to as "the pluperfect."[34]

Now, although the perfect (or, with Jasanoff, "protomiddle") denoted a timeless state in Proto-Indo-European, or at least in "Early" Proto-Indo-European, it is clearly usually presential and "tense-like" already in the earliest texts in all the early Indo-European languages, including of course Archaic Greek. As such, the perfect might reasonably have been supplied at quite an early stage with a past-tense counterpart. Suppose, then, that Proto-Indo-European or some early Indo-European language or group of languages did in fact create a secondary perfect. How would this have been accomplished, given that there are no special secondary perfect endings, that is to say, that the endings of the perfect are different from the familiar *-m/*-s/*-t-formants of the present and aorist ("tensed") systems, which underlie both primary and secondary endings? There can, I think, be only one answer, namely that the secondary endings *-m, *-s, and *-t would simply be imported into the perfect system and added directly to the perfect stem, thereby yielding pluperfects (or perfect injunctives) that are formally "imperfects of the perfect."[35] It should be noted that such a solution, which can be found in two papers by Jasanoff from the 1990's (1994, 153–154 and *passim* and 1997a) and in his remarkable recent monograph (2003, 34–43 and *passim*), is what evidently gives rise to the athematic dual and plural active pluperfects in Greek, witness, for example, the structure |(augment +) reduplicand + *(o/)Ø*-grade ablauting root + secondary endings| of 1pl. (ἐ-)πέ-πιθ-μεν; *mutatis mutandis* the same procedure is responsible also for Greek medio-passive pluperfects like (ἐ-)τέ-τα-το.

Consider now the pluperfect in Indo-Iranian,[36] one of only a few branches of Indo-European that have a reasonably robust category of non-periphrastic formations and the branch whose verbal system is, at least superficially, the closest to Greek.[37] The early Vedic pluperfects – in the singular, N.B., as

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called "Aeolic" aorist optative, which looks as though, to quote Forbes (1958, 173), "-ει- w[ere] simply infixed before the indicative endings" of the unaugmented sigmatic aorist. This leaves Hom. 2sg. impv. ὄρσεο 'Rise!' and λέξεο 'Lie down!', which Roth (1990, 60–76) believes come from *ὄρσο and *λέξο; whatever their history may be, they "semblent être des créations artificielles et en partie métriques" (Chantraine 1958, 417).

[34] See already Wackernagel 1926, 185 for the refreshingly undogmatic remark, "Ob es vorgriechisch, schon in der Grundsprache, ein Präteritum des Perfektstammes gab, wissen wir nicht." Note by contrast no less an authority than Hoffmann (1970, 27): "[D]ie urindogermanische Existenz eines Plusquamperfekts [ist] ganz zweifelhaft." Tichy (2000, 80) seems to suggest that Proto-Indo-European had a category "Plusquamperfekt," which, she stresses, was "nicht = Tempus der Vorvergangenheit!": compare also, e.g., Rix 1976/1992, 257 and Szemerényi 1996, 298, with notes on 299.

[35] Compare to some extent the way in which morphology normally associated with the present and aorist systems is used to form other "non-standard" categories of the perfect, namely its subjunctive, optative, and imperative; see Euler 1993.

[36] I make no distinction in this paragraph between pluperfects and perfect injunctives, for the sake of simplicity referring to both as "pluperfects."

[37] Aside from Greek and Indo-Iranian (though the actually attested forms are almost all Indic; see immediately below in the text), the only two branches with morphological pluperfects are British Celtic (see fn. 7) and Italic (attested only in Latin[?], but their absence elsewhere can only be accidental – the "Freiburg School" interprets Osc. 3pl. impf. **fufans** in the Cippus Abellanus [Cm 1 A10 Rix] 'were' as an old pluperfect: the *locus classicus* is Rix 1983, 101–102 n. 15, and see also Meiser 2003, 42–43, as well as B. Schirmer and M. Kümmel in Rix et al. 2001, 98, with 100 n. 24, and Untermann 2000, 251, with references back to W. Petersen). Both formations are of

well as in the dual and plural – are generally said to be inner-Indic (or inner-Indo-Iranian) formations (see, e.g., Kulikov 1991 and Cardona 1992), but nothing speaks against taking at least some of them to be reflexes of old imperfects of the perfect, that is, the perfect stem plus secondary endings: note, for example, the Rigvedic forms 1sg. *cakaram* (IV.42.6) 'made' (root √kr-),[38] 2sg. *(á)jagan* (I.130.9 and III.9.2) '(had) come' (root √*gam-*; < *-m-s*), and 3sg. *abibhet* (X.138.5) 'was afraid' (root √*bhī-*).[39] The same holds true also for the lone pluperfect singular in an early Iranian language, GAv. 3sg. *urūraost* (*Y* 51.12), which probably means something like 'rejected, repelled' (see Kümmel 2000, 667–668 for references and discussion) and which certainly goes back to *-raud-t*, the dental-final strong perfect stem of a root √*rud-* (cf. YAv. 1sg. pf. °*urūraoδa*) plus the athematic desinence *-t*.[40] Furthermore, beyond arguing for the antiquity of these Indo-Iranian forms, Jasanoff has plausibly identified two relic pluperfects of exactly the same type in the widely separated Anatolian and Germanic branches: Hitt. 3sg. pret. *wewakt(a)* (*KUB* 43.23 Vo. 12', probably a hapax) 'demanded' (PIE *μek- 'wish') and Go. *ôgs*, a second-person singular form of the preterito-present verb *ôgan* 'fear' (PIE *h_2egh-) whose precise morphology has been the subject of much hand-wringing.[41] The existence of so simple a method of

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considerable diachronic interest (for the Italic perfect system, see Jasanoff 1987 and also 1991b), but neither would seem to be relevant to the issue at hand.

[38] The expected outcome of PIE *$k^\mu ek^\mu \acute orm$ would of course be *$cak\bar aram$, by Brugmann's Law, but there is no real difficulty in seeing in *cakaram* a remodeling on the corresponding perfect, *cakára*.

[39] Thieme 1929, 35–51 and *passim* remains the starting point for any discussion of the pluperfect in Vedic, where the category is already moribund. Many of Thieme's analyses of individual forms are open to question, however, and the new authority is Kümmel 2000 (to whose bibliography add Kulikov 1991 and Cardona 1992, the latter with observations [see pp. 7–8, with notes on 12] on seeming differences in origin between the pluperfects of √*gam-* and √*bhī-*). For the form and function of Indo-Iranian pluperfects, see Kümmel 2000, 47–49 and esp. 82–88, with remarks on the three Rigvedic verbs just cited in the text on pp. 137, 158–159, and 336. See also Rasmussen 2000, 449 and *passim* and now Jasanoff 2003, 35–36 and *passim*.

[40] Kellens (1984, 411) calls *urūraost* "le seul plus-que-parfait incontestable de l'Avesta." However, Jasanoff (1997a and 2003, 39–40 and *passim*) argues strongly in favor of analyzing GAv. *cikōitaraš* (*Y* 32.11) as a third-person plural pluperfect with a meaning something like 'appeared' (for an overview, see Kümmel 2000, 32–35, 48, and 634–636, where the root is registered as "?√*caēt* 'beachten; erscheinen, glänzen'"). Hoffmann / Forssman (2004, 237) are generally skeptical.

[41] For detailed argumentation, see Jasanoff 1994, 153–154 and 156–157, 1997a, 125 and *passim*, and now 2003, 34–38 and 251 (index s.v. *wewakk-*, etc.). Jasanoff's idea

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word-formation in one major Indo-European branch (and very probably more), coupled with the existence of an unsolved puzzle in the morphology of the same category in another branch, suggests that we investigate whether the Greek pluperfect, too, might not go back – everywhere, and not just outside the singular – to something of this kind. If this strategy is correct, it would unify the usual pluperfect paradigm in Archaic Greek as through and through athematic from a historical point of view; in addition, it would bolster the suggestion that the Vedic and Old Avestan forms go back to something well older than Common Indo-Iranian.

The described template of this putative Proto-Indo-European formation in the perfect system is just what underlies such forms as Gk. (ἐ)πέπιθμεν, as noted above: [(augment +) reduplicand + *o/Ø*-grade ablauting root + secondary endings]. If such "pluperfects" – that is, perfects with secondary endings – had made their way into Greek unmediated by anything other than regular phonological change, they would have developed into some quite peculiar forms: for example, 2/3sg. *(ἐ)πέποις (< *-d^h-s, *-d^h-t)* and (from the root *leik^\mu-* 'leave', as in Gk. λείπω) 2sg. *(ἐ)λέλοιψ, 3sg. *(ἔ)λελοι (< *-k^\mu-s, *-k^\mu-t)*. But this is not, of course, what happens. Consider the following partial paradigm of the uncontroversial Proto-Indo-European perfect and the "Jasanoff pluperfect" of the root *$bheidh$- 'trust', as in Gk. πέποιθα and (ἐ)πεποίθεα:

	Perfect	Pluperfect
1sg.	*bhe-$bhóidh$-h_2e	*(e-)bhe-$bhóidh$-m
2sg.	*bhe-$bhóidh$-th_2e	*(e-)bhe-$bhóidh$-s
3sg.	*bhe-$bhóidh$-e	*(e-)bhe-$bhóidh$-t.

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is brilliant that Go. *ni ôgs pus* 'μὴ φοβοῦ; Fear not!' reflects an old perfect injunctive (a category whose existence Hajnal [1990, 73 n. 68] expressly denies) in a prohibitive clause (rather than, e.g., a short-vowel subjunctive, an old idea promoted in recent years by Bammesberger [1986] and Euler [1993, 22–23 n. 29]): *$(m\acute e)\ \bar ag^h$-s*, with restoration of the root -*g*- after the rest of the paradigm. (Kortlandt [1994, 1], too, writes that *ôgs* "evidently represents a perfect stem with a secondary ending," while, however, also stating categorically, "There was no pluperfect in Proto-Indo-European.") The idea that *wewakt(a)* goes back directly to PIE *μe-$\mu\acute o\kappa$-t* has given rise to considerable doubt but is in my view very likely correct: the fact remains that the expected preterite of the *hi*-verb *wewakki* would have been *$wewakki\check s$*; furthermore, Jasanoff (1994, 156–157 n. 14, 1997a, 125 n. 21, and 2003, 38) notes the unexpected – and very likely telling – root accentuation of a Rigvedic form that seems to be nearly exactly cognate with Hitt. *wewakk-*, namely 2sg. pres. *vavák-ṣi* (VIII.45.6) 'wish'.

By the Proto-Indo-European "dental + dental-rule" (which explains such things as the final cluster in GAv. *urūraost*),[42] such a paradigm would uncontroversially go into Greek with the root obscured in the second- and third-person singular pluperfects, at this point respectively **(e)pepois* (< **(e)pepoiss*) and **(e)pepoist* (compare now Jasanoff 2003, 36 n. 20):

	Perfect	Pluperfect
1sg.	πέποιθα	**(e)pepoit^{h}m̥*
2sg.	**pépoist^{h}a*	**(e)pepois*
3sg.	πέποιθε 'believes, trusts in'	**(e)pepoist* 'believed, trusted in'.

Such a situation (which Berg [1977, 225, with references] explicitly calls a "Hypothese[, die] offenbar gar keinen Erklärungswert … besitzt") would be untenable and cry out for paradigmatic leveling: the final consonant, **d^h* or (in Greek terms) **t^h/θ*, is now missing from these two pluperfect forms while still being found in, for example, the first-person singular perfect and pluperfect and the third-person singular perfect. The only way to restore it is through thematization: **(e)pepois* and **(e)pepoist* become respectively **(e)-pepoit^{h}es* and **(e)pepoit^{h}et*. And now, once some of the pluperfects, notably those to dental-final roots, are thematic, all other pluperfects are likewise thematized (except one; see below): so, to take again the labiovelar-final root **leik^u-*, 3sg. **(e)leloik^{u}t* becomes **eleloik^{u}et* (and so on and so forth). It should be stressed that it is not problematic that the scenario I am sketching relies crucially on dental-final roots as a fulcrum of morphological change: quite a number of perfects and pluperfects in epic are built to such roots[43] and there are also a number of uncontroversial examples in early Greek of the morpho-phonological extension of dentals and of forms that reflect the dental + dental-rule.[44]

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[42] Although the matter is of little consequence here, it should be noted that this standard rule (see Mayrhofer 1986, 110–112) may in fact need modification: see now Hill 2003 (discussion of *urūraost* on p. 64, with reference to X. Tremblay).

[43] According to the list in Risch 1974, 347–348 of active pluperfects in Homer (ordered by final consonant of the root or extension), roughly half the stems whose perfects end in a dental consonant – including 'know' – have attested alphathematic pluperfects. That said, only about a quarter of the stems that have attested alphathematic (or mixed) pluperfects end in a dental consonant: see Chantraine 1958, 437–438, corrected by Shipp (1972, 170 n. 2).

[44] Brent Vine points out to me the somewhat similar extension in 1sg. pf. mid. πέπυσμαι (*Od.* 11.505 and standard in the classical language) 'found out, learned' (based on 3sg. πέπυσται; PIE **b^{h}eud^h-* 'notice (*vel sim.*)') and also the curious Homeric form 3pl. pf. mid. ἔρραδατ- 'be spattered', which is part of the paradigm of ῥαίνω 'sprin-

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Let us turn now to a brief consideration of the thematic pluperfect. What is interesting is that almost all the attested forms fall into at least one of two mutually inclusive classes. As already noted, the majority of thematic pluperfects are non-stative verbs of speech or noise, all of which – plus most of the remaining thematic forms – have at least two, and usually all three, of the following characteristics: (1) they are built to laryngeal-final or inherently long-vowel roots; (2) they have a propensity for root-final or suffix-initial kappas and other velars; and (3) they exhibit, or at least potentially exhibit, abnormal ablaut.[45] The *verba dicendi vel sonandi* (see fnn. 26 and 27 for significant details) are as follows (the first three are "normal human," the next two "animal"): (a) Hom. 1sg./3pl. ἄ/ἤνωγον, 3sg. ἄνωγε(ν) and Cypr. 3pl. *a-no-ko-ne* 'ordered, commanded; bade', Hom. 3sg. (ἐ)γέγωνε(ν) 'called out, shouted', and Cypr. 1sg. or 3pl. *o-mo-mo-ko-ne* 'swore'[46]; and (b) Hom. 3pl. (ἐ)μέμηκον (*Od.* 9.439) 'baaed, bleated' and probably Hom. 3sg. (ἐ)μέμῡκεν (*Od.* 12.395, *v.l.*) 'mooed, lowed'.[47] Notice that the remaining forms have

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kle' but has clearly been influenced by ἐρειδ-/ἐρηρεδατ- 'support (*vel sim.*)' (PIE **(h₁)reid-*). For details, see Chantraine 1961, 196; see also, e.g., Ringe 1989, 150 n. 29 (with reference to S. R. Slings). Compare below, with fnn. 56 and 57, on forms of the verb 'know'.

[45] Recent work on long-vowel perfects includes Jasanoff 1997a, 128 and 2003, 31, Tremblay 1998 and 2002, Schumacher 2005, and Vine 2007 (many thanks to Brent Vine for sharing his paper with me in advance of publication).

[46] The Proto-Indo-European root of the third verb is clear, **Hemh₃-*, and the root of the first is certainly **h₂eǵ-* 'say', though it is disputed whether this is ultimately the same as the root for 'drive' (see, from very different angles, Sauge 2000, 194–236, esp. 194–204, and M. Kümmel in Rix et al. 2001, 255–256, with particular reference to M. Poetto; see also Jasanoff 2003, 224–225 n. 3). As for the second verb, while its root is often taken to be **ǵneh₃-* 'know' (see, e.g., Sauge 2000, 237–259 and Tremblay 2002, 115–117), Hackstein (2002, 187–193) suggests linking it to Toch. A *ken-* 'call, invite' via a new root **Gh₃en-*(!) with the meaning 'sich laut vernehmbar machen' and Vine (2007), though accepting Hackstein's Tocharian comparandum, rejects **Gh₃en-* (and also **ǵneh₃-*) in favor of **Gen(H)-* 'cry out', which he proposes may also lie behind Lat. *gemere* 'groan' (← **genere*). Schwyzer (1939, 777 n. 6) and Morpurgo Davies (1968, 800) imagine that 3pl. *ka-te-wo-ro-ko-ne* (i.e., κατέϝοργον) 'besieged' (PIE **(H)u̯erG-* [*vel sim.*] 'lock (in)') might be a third pluperfect in Cyprian, but this form in the Idalion Bronze (see fn. 26) is more likely to be an aorist (see Masson 1983, 238 [plus 414]), certainly on semantic and perhaps also on morphological grounds (Ringe [1984] does not mention it in his catalogue of epigraphic (plu)perfects).

[47] Presumably the "roots" of these last two verbs are onomatopoetic and not of a canonical structure: **mā̃/*mē̃* and **mū̃*. It seems likely to me that at least some other noisy alphathematic pluperfects, to roots with both a long vowel and a final velar

much the same shape: 3pl. ἐπέφῡκον (vs. Hom. (ἐ)πεφῡκεσαν*; unattested, but cf. 3sg. πεφῡκει) in a formula about the prodigious heads that 'were' on or 'grew' from the Hundred-Handers' shoulders (Hes. *Th.* 152 = 673; also = *Op.* 149), an early (probably Aeolic) kappa-pluperfect to the non-ablauting laryngeal-final root *b^huh_2- 'be, become' (on which see above all Jasanoff 1997b); 3sg. επηστακε (known from three[!] 3rd- and 2nd-cent. B.C. East Aeolic inscriptions; vs. Hom. ἐφεστήκει and Att. ἐφειστήκει) 'stood on/over (*vel sim.*)',[48] another kappa-pluperfect to a laryngeal-final root, *$steh_2$- (see Ringe 1984, [I,] 140–141, [I,] 144, and [II,] 508 for references and thorough discussion; see also Ringe 1989, 146 n. 12)[49]; and probably the etymologically, morphologically, and semantically obscure Homeric forms ἐπενήνοθε (2x *Il.*) and ἀνήνοθεν (*Il.* 11.266; perhaps [see Richardson 1974, 253–254, with references] < *ἀνενήνοθεν with haplology).[50] This is not the place for a

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(*$C(R)\bar{V}K$-), conceal old thematic pluperfects: for λεληκ-, see fn. 27; *τέτρῑγεν with a nu (compare fn. 18) could without further ado be substituted for τετρῑγει 'creaked' in *Il.* 23.714; and perhaps (ἐ)βεβρῡχει 'roared' is somehow a replacement of (ἐ)βέβρῡχε(ν), though there is no easy way to work this into *Od.* 12.242. (The form 3pl. (ἐ)πέπληγον '(had) struck, beat(en)', attested three times in Homer, is sometimes taken to be a reduplicated aorist [thus, e.g., Chantraine 1958, 397] – even in later stages of Greek there is very little evidence for indicative forms like πέπληγα – but it, too, may be an old pluperfect, as suggested by such scholars as Schwyzer [1939, 777, with n. 4], Ringe [1989, 124], B. Schirmer [in Rix et al. 2001, 484], Beckwith [2004, 78], and especially Tichy [1983, 404 (Wortindex s.v. πέπληγ(α)-)]. who gives a full account of the verb's noisy semantics on pp. 65–69. I consider it unlikely that 3pl. ἄραρον [*Il.* 16.214] '[their helmets and shields] were fitted together' is a thematic pluperfect, or at any rate an old one [vs. alphathematic 3sg. ἀ/ἠρήρει, cited above in the text], though for arguments that it is, see most recently Hackstein 2002, 152–153. Occasionally, other epic forms are cited as thematic pluperfects [see, e.g., Mekler 1887, 61–62], but it seems safe to ignore them here.) On these and a number of semantically and structurally similar verbs, see above all the many interesting observations in Tichy 1983, 36–39, 63–75, 98–100, and *passim* and Nussbaum 1987; see also Sauge 2000, 36–56.

[48] Note also the super-thematic Phocian pluperfect 3pl. εφεστακεον (see fn. 27).

[49] There may be one more epigraphic thematic pluperfect, also Aeolic: 3sg. εβεβου| [λ]ε 'wanted' (PIE *g^welh_3-) in a 1st-cent. B.C. verse-inscription from Adramyttium (*GVI* 2046.4). But, despite the implication of Hackstein (2002, 262), J. Wackernagel (in Fabricius 1894, 907 and 909) is not at all sure that the form is not rather to be read as a simple perfect, βέβουλε.

[50] The only thematic pluperfect that does not easily fit in is δείδιε, etc. (< *δε-δϝ(ο)ι-) 'feared'. It is likely that the forms of this verb belong here only secondarily, a result somehow of the incomprehension with which they must have been regarded once the regular phonological changes had taken effect that obscured their affiliation with the

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proper discussion of the many issues that these forms raise, both for the history of Greek and for Indo-European historical linguistics more generally.[51] But the fact that among these anomalously thematic pluperfects are ones that mean things like 'bleat (like a sheep)' and are therefore not the sorts of verbs that one expects to find in the perfect system should surely be taken seriously, and I propose that at least one contributing factor (I imagine there are others) in the development of this small class of forms fits in with my overall scenario: so far I have explained how we get to the point at which the third-person singular pluperfect ends in *-*et*,[52] and I suggest that just those verbs that are atypical and not stative develop by regular phonological change from *-*et* to *-*e*, thereby engendering by analogy to the imperfect a thematic paradigm with first-person singular and third-person plural forms in -ov (compare Berg 1977, 232).[53]

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perfect system (compare now Beckwith 2004, 80). Shipp (1972, 115), concentrating on δείδιε and the forms in -ήνοθε(ν), claims that the "distribution" of thematic pluperfects in Homer is "in general 'late'"; this may be true, but it is hard to believe that the forms themselves are not reasonably old (if not as hoary as Beckwith [2004] might wish; see fn. 27).

[51] I do wonder, though, whether a better understanding of the phonetics of laryngeal- and velar-final roots might help explain the rise of the kappa-(plu)perfect (on which see especially Kimball 1991 and Dunkel 2004, with numerous references). Note that velar-extensions are far from unknown in barnyard words: e.g., the kappa in Gk. 3sg. pres. μῡκά- (found already in *Od.* 10.413, but in a linguistically late guise: see Nussbaum 1987, 236, with n. 18) 'moo, low' is almost certainly imported from the older form μεμῡκ- in the perfect system (see above in the text and Nussbaum 1987, 236 and 242–243), but what about the -k- in SCr. infin. *mukati* (3sg. pres. *muče*), the -g- in Lat. 3sg. pres. *mūgit*, etc.?

[52] Note in passing that it seems likely (as I suggested to Jasanoff in 1991 on the basis of, especially, Hitt. 3sg. pret. *ma-al-li-e-it* 'ground' [PIE *$melh_2$-]) that the imperfect of such third-person singular "h_2e-presents" as PIE *$mólh_2e$ 'grinds' (the *Paradebeispiel* since Jasanoff 1979; see most recently Jasanoff 2003, 64–90 and *passim*) is *$mólh_2$-et. Jasanoff (2003, 86–90) now cautiously accepts this ("*mólh_2-et*(??)" [89]). and if it is correct, then there is yet one further wrinkle in an already complicated picture (Jasanoff 2003, 88 n. 73 invokes Greek verbs like 'bleated' in his discussion, noting, however, that *ma-al-li-e-it* itself, which is attested so far only in Neo-Hittite [apparently twice in one unpublished text, Bo. 6870], may not be historically probative).

[53] One does have to ask, though, how such forms found themselves in the perfect system at all. The existence of the so-called "intensive perfect" – a category on which there is a large literature from quite a number of perspectives (among the more recent treatments are Di Giovine 1990, 57–86, esp. 81–86, Sicking / Stork 1996, 125–127 and *passim*, and Sauge 2000, 36–108 and *passim*, as well as Szemerényi 1996, 293, with notes on 295, and 338 n. 2 and Jasanoff 2003, 30, with n. 2, and 88 n. 73) – is no

What about all the other verbs? To answer this question, it is necessary to backtrack very slightly. I claimed two paragraphs ago that all pluperfects become thematized, under the influence of the paradigmatically conditioned restoration of the final consonant in dental-final roots. This is not in fact quite correct: one single verb does not, in my view, undergo thematization, namely the most prominent one, 'know', whose especially common (compare fn. 59) third-person singular pluperfect remains $*(\acute{\bar{e}})\mu oist$ ($< *(\acute{\bar{e}})\mu oid\text{-}t$) rather than becoming $*(\acute{\bar{e}})\mu oidet$. The exceptional retention of archaic morphology in frequently used verbs, like 'know' and 'be', is of course very common cross-linguistically.[54] Berg's trick in his solution to the problem of the pluperfect is to claim a zero-ending in the third-person form, and it is time for me to unveil my trick, which I believe is linguistically far easier to motivate: only the semantically atypical verbs keep the ending $*\text{-}et$ long enough to become $*\text{-}e$ (and, hence, thematic pluperfects); all the typical – that is, stative – forms are altered by analogy to the unique ending of the most common – and stative – pluperfect, namely $*(\acute{\bar{e}})\mu oist$. The result of this is that 3sg. $*(e)pepoit^het$ (and $*(e)leloik^uet$, etc.[55]) becomes $*(e)pepoit^hest$ (and $*(e)leloik^uest$, etc.).[56]

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doubt relevant but cannot be discussed here. That said, I am favorably disposed to the idea, nicely developed in Tichy 1983, 69–71 and *passim*, that various long-vowel onomatopoetic verbs, including at least some *verba sonandi* cited above in the text and in fn. 47, are originally iterative presents/imperfects with full-syllable reduplication (i.e., $*m\bar{u}m\bar{u}k\text{-}$ and the like); compare also, e.g., Ringe 1989, 146 n. 12, though Ringe is skeptical (as am I) that ἄνωγον, etc. belongs in this category.

[54] The verb 'know' is also the only perfect in the proto-language that is unreduplicated (attempts to say otherwise are unconvincing; see now the solution to this vexed matter in Jasanoff 2003, 228–233) and the only perfect in Greek that attests to all three ablaut grades (I ignore here questions that have exercised a number of scholars about the relative antiquity of certain *e*- and zero-grade forms and the curious rise of the former at the expense of the latter; see, e.g., Ringe 1989, Tremblay 2002, 129–130 and *passim*, and Schumacher 2004, 696–699).

[55] I have been invoking the root $*leik^u\text{-}$ since it is well known, is structurally transparent, and has an active perfect in Homer. While λελοιπ- does not at first glance appear to be stative, a careful examination of the evidence (including in Vedic, where it has an exact cognate: *rirec-*) suggests that it in fact is or was (see Meiser 1993, 305–309, esp. 307–308, and Kümmel 2000, 423–427, esp. 425–427, and in Rix et al. 2001, 406–408).

[56] A typologically comparable example is the ending of the third-person singular root aorist optative in Vedic (e.g., *bhūyāḥ*; root √*bhū-* 'be'), which reflects "precative" $*\text{-}st$ rather than inherited $*\text{-}t$ (as still in YAv. *buiiāt*). Note also the influence of 'know' in Gk. 2sg. impf. ἦσθα 'was' (cf. 2sg. perf. οἶσθα) and PGmc. 2sg. *-st* (if indeed Sihler [1986] is correct that this ending originates in pre-PGmc. $*waitst$ 'knowest' [= οἶσθα,

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We thus have a singular pluperfect paradigm 1sg. $*(e)pepoit^h\eta$, 2sg. $*(e)pepoit^hes$, 3sg. $*(e)pepoit^hest$, and the next step is to generalize the sequence $*\text{-}es\text{-}$ from the second- and third-person forms to the first: so, $*(e)pepoit^hes\eta$, $*(e)pepoit^hes$, $*(e)pepoit^hest$. Next, $*(e)pepoit^hest$ loses its final $*\text{-}t$ and develops regularly into $*(e)pepoit^hes$; this takes place at the same time-level, of course, as the loss of the $*\text{-}t$ in the creation of the thematic pluperfects, as already described. Since the first-person singular form looks quasi-aoristic ($*(e)pepoit^hes\bar{a}$ [*vel sim.*, after the development of final $*\text{-}\eta$]; cf. 1sg. aor. -σα), as also does the third-person plural (something like $*(e)pepoit^hesan$),[57] the second- and third-person singular forms, too, are fitted out with aoristic endings: the awkwardly ambiguous form $*(e)pepoit^hes$ is changed to $*(e)pepoit^hesas$ in the second person and $*(e)pepoit^hese$ in the third. And this provides the punch line, for with the loss of intervocalic $*s$, this gives us exactly what we find in Homer. Indeed, $*(e)pepoit^hese$ is attested as such, as ἐπεποίθει ($< *$ἐπεποίθεε), in *Iliad* 16.171: πέντε δ' ἄρ' ἡγεμόνας ποιήσατο, τοῖς ἐπεποίθει 'and [Achilles] had appointed five leaders, whom he trusted'.

There is, to be sure, one last question, namely what the solution is to the last remaining pluperfect, the anomalous $*(\acute{\bar{e}})\mu oist$,[58] which must somehow become the wholly different ᾔδη.[59] Berg's view of ᾔδη (see 1977, 240–256),

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both $<$ PIE $*\mu\acute{o}id\text{-}th_2e$; compare fn. 57] and other second-person singular preterito-present and preterite forms to dental-final roots; but see now Hill 2003, 83–92 and *passim*); see also Jasanoff 1987, 178–179 on Lat. 2sg. pf. *-istī* and the like, modified now in Jasanoff 2003, 119–121.

[57] It appears that the third-person plural aorist ending -σαν is generalized extremely early on, at least in some dialects, as *the* secondary ending for this person, including in the pluperfect (note in the first place probably ἴσαν 'knew' [see fn. 59] for *ἴδαν [← $*\text{-}\eta t$] on account of 2pl. pf. [and unattested plpf.?] ἴστε, etc., whose -στ- reflects the dental + dental-rule). On -σαν in general and in pluperfects, see especially Ringe 1989, 124–125, with notes on 144–147, and *passim*.

[58] It is unclear why some verbs, especially those with a *u*-initial root, have a lengthened augment; see, e.g., Chantraine 1958, 479–481 (plus 517), as well as Szemerényi 1996, 297, with notes on 299.

[59] For a tally of the pluperfects of οἶδα (38 or 39 in Homer; see fn. 8), see Hackstein 2002, 254 and *passim*; see also Ringe 1989, 123–127, with notes on 143–148. The third-person singular form ᾔδη(/περιῄδη) is attested 21 times in Homer (*v.l.* ᾔδει), and note in addition ᾔδεε(ν) (6x) and the hapax ἠ(ϝ)είδη (*Od.* 9.206, with *vv.ll.* ἤήδη, ἠείδει, ἤήδει). The form ᾔδεε(ν) (and also ᾔδει) can hardly reflect anything other than a late analogy to the normal ending (see fn. 25); it is of course what wins out in post-Homeric forms of Greek. The other forms of 'knew' in Homer are: 1sg. ᾔδε(α) (4x); 2sg. ᾔδησθ(α) (*Od.* 19.93) and ἠ(ϝ)είδης (*Il.* 22.280, with *v.l.* ἠείδεις; cf. also Zenodotus' reading ᾔδεις in *Od.* 1.337); and 3pl. ἴσαν (4x).

to which I have already alluded, is nothing short of bizarre: "Unter allen Umständen sollte man nicht vergessen, dass die *lectio difficilior éidē* primär und eigentlich nur etwas über die alexandrinische Rezension des Homertextes aussagt. Wir müssen folglich konkludieren: führt das Vertrauen auf die Aristarchische Lesart zu linguistisch und metrisch unhaltbaren Ergebnissen, so ist sie unbedenklich zu verwerfen. Die Linguistik hat darüber das letzte Wort zu sprechen" (1977, 244). If indeed linguistics is to have the last word, then it will hardly do to discard what Berg himself admits is the *lectio difficilior*.[60] Now, the verb 'know' has been for most scholars the key to the problem, but I confess that I cannot see how to reconcile my picture with either of two thought-provoking (and themselves mutually irreconcilable) scenarios for ἤδη found in the recent scholarly literature, that of Martin Peters, who suggests an Armenian comparandum, and that of Peter Schrijver, who proposes a Celtic one.[61] An attractive idea that will fit – for it explains how ἤδη can be unique in Homer while not pushing the origins of -η back to the remote past – is something that Jasanoff tells me he first mooted at a conference in 1983 and has since noted all too briefly in print on a few occasions (see 1991a, 117 n. 34, 1997a, 125 n. 20, and now 2003, 36 n. 20). At some point, *(ē̆)u̯oist (which, had it survived, would have yielded *(ή/ἔ)ϝοις) seemed so out of place in comparison with the other pluperfects that even it had to be changed, and Jasanoff suggests that it was fixed according to the following proportion: 3sg. aor. pass. opt. φανείη (to φαίνω 'show, cause to appear') : 3sg. aor. pass. indic. (ἐ)φάνη[62] 'appeared' :: 3sg. pf. opt. (ϝ)ειδ-

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[60] Hackstein (2002, 254–277) makes some interesting observations in the course of discussing Homeric and later Greek pluperfects, especially forms of the verb 'know', but his defense of Berg on this point (see esp. pp. 260–265) entirely fails to convince. Schumacher (2004, 697–699) puts the objections cogently.

[61] Peters (1997) argues that the ending -η is to be compared to the -a- (< *-ā- [vel sim.]) in Armenian aorists like 3sg. *gitac̣i* 'knew'; Schrijver (2000) claims that ἤδη goes back to PIE *u̯eid-ē- (an e-grade form [see fn. 54] that "wahrscheinlich schon grundsprachlich als Plusquamperfekt ... fungierte" [270]) and that this same preform also underlies British Celtic imperfects like MW 3sg. *gwyδ-(y-)at* 'knew' (compare Rasmussen 2000). See also Barton 1990/1991, 43 and *passim*. Schrijver's idea in particular holds a certain appeal (see Schumacher 2004, 696, as well as Beckwith 2004, 78 n. 13), but in view of the apparent incompatibility of both scholars' arguments with my own, I see no point in assessing either of them in a footnote. I urge readers to take the time to consider in their own minds the relative merits and weaknesses of all positions. The late C. J. Ruijgh's inner-Greek story about ἤδη and other forms of the verb 'know' (final publication: Ruijgh 2004, 54–56) has been widely criticized.

[62] The last few years alone have seen more than a few "solutions" to the origin of the Greek aorist passive: pride of place goes to Jasanoff 2002/2003, 161–167 and *passim*.

είη[63] : X, where X = ἠ(ϝ)είδη (or ἐ(ϝ)είδη or perhaps even ϝείδη) 'knew', a form attested once in Homer as such (see fn. 59) and the presumed precursor, with contraction, of the usual ἤδη.[64] The relationship between a pluperfect and an optative is even semantically motivated since it is well known that past time and non-indicative moods are to some extent interchangeable: for example, a modal verb can be employed as an imperfect, as in Eng. *would*, and possibility can be expressed with a past tense, as in the Russian modal particle *by*, which derives from the old aorist of the verb 'be' – not to mention the use of what is formally a pluperfect in past contrary-to-fact conditionals in such languages as English and Persian (compare Gonda 1956, 191), instances of modal pluperfects in Old Welsh poetry (see MacCana 1976, 198–199), and the fact that the Latin pluperfect indicative develops in Spanish into an imperfect subjunctive (Meiser [1992, 200, with 214 n. 39, citing W. D. Elcock] explains why this is interesting).[65] What makes Jasanoff's explanation of ἤδη so appealing is that it fits nicely with the account proposed here of all the other kinds of pluperfects: the exceptional retention of an archaic, athematic, form in just the most common stative verb explains both why it is formally different from all the rest and, most important of all, why and how the thematic and alphathematic pluperfects develop – and develop differently from each other.

If, as I have tried to show, Nils Berg's theory of the origin of the pluperfect is unacceptable, then this category would seem to be the largest remain-

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(where the category is rightly referred to as in the first place "intransitive" rather than passive).

[63] This is itself an inner-Greek replacement of expected *(ϝ)ιδίη (*vel sim.*), with zero-grade of the root (as in RV *vidyā́t*, GAv. *vīdiiāt̰* [Y 48.9], and Go. *witi*); see the references at the end of fn. 54.

[64] Jasanoff does not comment on the initial digamma presupposed by such things as the Homeric verse-opener #ὅς ϝἤδη ... (*Il.* 1.70 and 6.351) 'who knew ...'. But any way one looks at this, it is not a great problem. On the one hand, that vowel-initial ἤδη should be changed to ϝἤδη by analogy to ϝοῖδα, etc. would hardly be surprising in view of the fact that the hidden internal morphology of the forms of 'knew' could not possibly have been recognized even by early speakers. Alternatively, perhaps West (1998 and 2000) is right to follow Wackernagel (1878, 266) and print unaugmented εἴδη, etc. (compare fn. 19) throughout his new Teubner text of the *Iliad*: he discusses his decision in the "Praefatio" (West 1998, xxxiii), but I note the objection of Janko (2000, 2, where "ἔείδη" in line 11 is a printer's error for ϝείδη).

[65] It may be worth noting that the only active pluperfect in Homer with modal sense is 'knew': twice in a past contrary-to-fact conditional (*Il.* 8.366 and *Od.* 23.220) and possibly also in *Il.* 6.351.

ing problem in the Greek verbal system. However, my scenario, which I stress owes a very great deal to hours in front of a blackboard with Jay Jasanoff, cuts through the knot with just one stroke, accounting for all the essential difficulties by explaining (1) the origin of the alphathematic pluperfect as at heart the same as the inherited(!) athematic pluperfect, with which it shares a single paradigm; (2) the (or at least a) reason for the formally and semantically anomalous thematic pluperfect; and (3) the reason why ἤδη is basically an alphathematic/athematic form, but with a striking unique feature. While this scenario is far from simple, each step is well motivated. Exceptional forms require exceptional solutions, and I hope that this solution is worthy of my exceptional teacher, colleague, and friend.

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