Brian D. Joseph
Πανεπιστήμιο της Πολιτείας του Οχάιο (Ohio State University (USA))

On a Possible Minor Sound Change of ɛ > α in Ancient Greek

Περίληψη

Η αρχαία ελληνική λέξη σόκος 'ασκία' συγκρίνεται συνήθως με σανοκριτική τνας- 'δέρμα' και με χιττική τweepka- 'κορμί'. Τέτοια σύγκριση, όμως, προϋποθέτει μια αλλαγή από Ινδο-Ευρωπαϊκό *e σε ελληνικό -o- μετά *tw- και/ή πριν *k. Εκδο εξετάζοντας όλες τις δυνατές οποιεσδήποτε σχέσεις με αυτή την υπόθεσή, το συμπέρασμα είναι ότι δεν έγινε ποτέ εκείνη η αλλαγή. Συνεπώς, ολίγη εξήγηση των τυχών σόκος/tnas-/tweepka- χρειάζεται, και προτείνεται ότι σόκος και τνας- εξελίχθηκαν από *twak- και tweepka- εξελίχθηκε από *dwek- (βλ. αλβανική dukem 'ψάνωμα').

By most accounts of the historical phonology of Greek as it developed from Proto-Indo-European (PIE). Ancient Greek is fairly conservative in its treatment of the proto-language vowel system.¹ For example, for the most part, both the long and short pure vowels of PIE, *e e: a a: o o:, are all preserved as such (at least so in some Greek dialects and thus in Proto-Greek), as are the vocalic reflexes of the semivowels, *ι and *υ and their long counterparts (most usually from contractions of *ι and *υ with laryngeal consonants). Moreover, Greek preserves what appears to have been a PIE three-way distinction in the vocalized counterparts of the laryngeal consonants.² Given this general conservatism in vocalic reflexes on the part of Greek, it becomes interesting to examine instances in which an apparent conditioned sound change seems to have led Greek away from its usual maintenance of the PIE vowel quality, in order to see if positings such a change is truly warranted.
One such case is the apparent change of *e to Greek α suggested by the generally accepted comparison of Greek οξος 'shield' with Hittite твeккa- 'body; self' (and Sanskrit тvac- 'skin; hide', which helps to provide the semantic transition between the Greek and the Hittite forms, under the assumption that the meaning 'shield' is to be explained as the stretching of skin over a frame). Since e is usually taken to be the basic vowel for an Indo-European root,4 Greek with its -α- in this word would show, if this comparison is accurate, an innovation away from the vowel quality of the proto-form. It has been suggested elsewhere, however, in Joseph (1986), that the Greek and the Hittite forms are to be separated. Hittite твeккa-, and its apparently related verb within Hittite, тuggари 'be visible', can instead be connected with Albanian дукем 'to appear, seem', from a PIE root *dwek-. Under this assumption, the -α- of Greek οξος need not derive from PIE *e, for *a is possible instead (thus *twak-).

If there were some way, however, of maintaining the claim of a conditioned change of *e to Greek α, then it would become possible to adopt once again, more securely, the connection between οξος and твeккa- (and тvac- as well, of course),5 and it must be admitted that such a move has considerable appeal from a morphological standpoint.6 Thus in this paper the evidence bearing on this putative sound change is assembled and reexamined more closely than in previous discussions of these words,7 in order to test the validity of positing an *e to -α- sound change. Ultimately, though, this case turns out to be a somewhat difficult one to judge, because the number of relevant forms that might allow one to decide for sure about this sound change is surprisingly small, even after some careful sifting.

As a starting point in the evaluation of this putative change, the necessary conditioning factors must be determined. It seems that all aspects of the surrounding segmental phonological environment would have to have played a role together, for each of the relevant individual segments, *t, *w, and *k, taken on its own, seems not to have had the effect of conditioning a change of *e to Greek α. Significantly also, none of these consonants are among those mentioned by Lejeune (1972: $256)
as promoting "l'ouverture des voyelles qui la suivaient ou la précédtaient", since only p/l/v are listed there.⁸

For example, a preceding *w by itself did not condition the change of *e to -α- in ἡμιο 'word' (from *wek'-), or in ἔμοω 'vomit' (from *wemH₁-).⁹ Similarly, a following *k (actually a pre-Greek *k, i.e. whether from PIE palatal *k' or velar *k, such a proto-language distinction being irrelevant for Greek as a "centum" language) also had no such effect, as shown by forms such as ναρός 'corpse; dead', νάγινον 'child', κλάκω 'plait', and numerous others. Moreover, there are forms such as ἀκόν 'willing' from pre-Greek *wek- (from PIE *wek'-¹⁰), where both *w and *k flank the *e, yet no change to -α- occurred, so that even the combination of these two consonants did not alter the vowel quality.

A more promising line of inquiry comes from a consideration of a number of forms that have α-vocalism and clearly had *tw- preceding the vowel.¹¹ For example, φράκτα 'table' (from *kw-twa-pedya, with a reduced form of the numeral 'four', *kwetwɔr-, as the first member of the compound), ᾠπολέως 'quick' (from *o-twā-leyo-, so Pokorny (1959: 1100 s.v. 1. twer-), σαφάνη 'plait, braid' and its synonymous relatives σαφάνις and σαφάνη (all perhaps from an extended root form *twā-g-, so Pokorny 1101 s.v. 2. twer-), σάφτε 'flesh' (from *twēk-, cf. Schindler 1972¹² and Pokorny 1101), σαφνῶ 'wag the tail' (from a root *twen-, presumably in the form *twēν-γ-, cf. Adams (1986: 339-340),¹³ and possibly σάφόω 'sweep', if from *twēν-γο-,¹⁴ all show an -α- after an cluster of *-tw-, suggesting the possibility that this consonantal sequence had an effect on the following vowel quality. However, all of these forms turn out to be irrelevant to the matter of σαφος, for they all have a liquid segment in the root after the *-tw-. Thus any one of these could show the -α- as the expected vocalism in the reflex of the liquid when syllabic, i.e. in a zero-grade formation—which for each of these is not an unwarranted ablaut grade¹⁵—as indicated above in most of the reconstructions. The development of -α- vocalism is expected from a syllabic liquid whether before a pure consonant as in σάφτε, σαφάνη, etc., or before a *y, as in σάφνῳ and σάφῳ. Consequently, these forms reveal
nothing about the fate of PIE *e in the context relevant for σκοτος.

Furthermore, running counter to the possibility of *e --> α/tw__ are forms such as αxe 'you/ACC' (from *twe, cf. the Hesychian gloss τρε' αxe, to be interpreted as τε and presumably Pamphylian16), σεφα 'cord, rope' (and related forms, all from *twe-er-, so Pokorny 1101 s.v. 2. twer-) and σαω 'shake, move' (from *tweys-9/ο-, cf. Sanskrit tves-ati).17 It may be, of course, that some of these are irrelevant to the determination of the development of σκοτος, e.g. αxe because it is a monosyllabic form, and σαω because of the following palatal semi-vowel *y in the pre-form (as opposed to the back consonant *k in σκοτος).18 Still, especially because of σεφα but probably also because of these other forms, it is difficult if not impossible to accept the claim that *tw- in and of itself as a preceding cluster could have led to a change of *e to -α-. Finally, Mycenaean <o-da-twe-ta>, usually interpreted as οδατεων 'having teeth' (so Lejeune S70), shows *-twe- preserved as such, though it may only indicate that the putative change of *e to -α- is post-Mycenaean in date.19

What emerges after all this careful examination and sifting of potentially relevant forms is that σκοτος is really the only good example of the putative change, and to judge from σεφα and other forms in which *twe- was maintained, the likelihood that σκοτος derived by a regular sound change from a pre-form with *e-vocalism is not great. In particular, the conditions for the change would have to be *tw__k-, i.e. an environment fulfilled only by this one word. Thus, one can accept the hypothesized σκοτος/twekka- (and tvac-) connection only at a certain "cost" in terms of explanatory adequacy, for the power of a claim of a regular sound change being responsible for the Greek vowel quality cannot truly be summoned forth successfully. Moreover, if one feels compelled to start with *twek- for σκοτος, then it seems just as likely that the -α- is the result of analogical contamination from σαφε, a form in the same semantic sphere. The need to specify a context *tw__k- for the putative change really brings this investigation into the realm of lexical change, as a change in a single lexical item, so that some sort of
analogue, i.e. lexically specific, explanation is not to be ruled out. Labelling the development to -α- a regular sound change requires the somewhat dubious step, from a methodological standpoint, of placing too much faith in a single example for the establishment of a sound law of the historical phonology of a language.

On the other hand, as noted above, one need not even start with *e-vocalism in the pre-form at all. The suggestion to separate ςκος from twekka- is quite plausible—all the more so since there is no corroboration from a recognizable sound change—and is especially satisfactory since a reasonable etymology for twekka- and its relative tuqqārī can be found, via Albanian dukem. Moreover, we can note here the possibility that ςκος is an old loan word, inasmuch as it is labelled as "Krētān" by certain ancient testimony.\(^{20}\)

In a sense, then, this examination leads to the need to consider an important methodological issue, namely that of how much weight to place on the evidence of one word in positing a highly specific and thus quite minor sound change, as opposed to looking for some other explanation (e.g. via analogical influence, as from ςκε, or via a different set of etymological connections, or even via a loan-derivation). From the evidence brought forward here, the verdict would have to be against claiming a minor sound law of *e --> α /tw_k for Greek historical phonology, for there really is no strong motivation for such a sound change that would have to accompany the hypothesized ςκος/twekka-(and tvac-) connection.
Footnotes

1. Though a far more controversial point, it may be that the consonant system of Greek is maximally conservative as well, under the interpretation of Swiggers (1986).

2. For some recent discussion of the question of whether Greek preserves such a three-way distinction or instead has innovated, see Lindemann (1982) and Joseph (1984).


4. Pokorny (loc. cit.) actually reconstructs *twak-, despite the Hittite form that he includes under this entry. Melchert (1984) and Schindler (1972: 37), though not specifically taking up the connection with Greek δακος, reconstruct *twek- for Hittite twekka-.

5. If the connection between twekka- and δακος is reinstated, then it is still possible for tuqqāri to be related to the Albanian form cited above, if the inner-Hittite connection between twekka- and tuqqāri is given up.

6. In particular, the occurrence of apparent zero-grade forms of twekka-, namely the occasional oblique forms with the stem tukka- (see Melchert p. 53 and Schindler p. 34), suggests that the noun originated as a root noun, which is the morphological type of the possible Sanskrit cognate tvac-.

7. Curiously, there seems to have been no mention made in the available literature, including Schwyzer (1939) or Lejeune (1972), of the problem with the Greek vowel in the δακος/twekka-/tvac- connection.

8. For example, Elean Greek has the form ἥμην 'work', with -ά- for -ε- next to -π- (cf. Attic ἥρην).

9. There are a few forms that at first glance are suggestive, though
not conclusively so, of a shift to α-vocalism after *w. For example, ἀστυ 'city' (cf. Mycenaean ʰwa-tu, Thessalian, Locrian, and Arcadian Φαστος 'citizen', and Sanskrit vástu 'site, homestead' for evidence of *w-) is, as Pokorny 1170 describes, "mit unerklärtem α-Vokalismus", if it is connected with a root *wes- 'live' (as in Greek ἀσά 'spent the night'). For this word, however, other problems with this root connection exist, most notably the fact that ἀσα and the Hittite cognate ḫuiš- 'live' point to a root form *H₂wes-, from which reflexes of a Proto-Greek ἀφόστυ, not ἀστυ, would instead be expected. Thus it seems either that ἀστυ has a different etymology and thus may not contain a reflex of a proto-language *e, or if derived from a root *H₂wes-, instead shows a development with original *o-vocalism (perhaps with *H → Ø in the mirror-image of the context /oR/, where R = r, l, m, n, w, y, as in τόμη 'courage' from *tolH₂-meH₂ versus τελομών 'strap' from *telH₂-men-).

Another suggestive form is the Attic ἀκαδήμος, which corresponds to Boeotian Φακαδόμος. In this case, too, however, it is unlikely that the *w is responsible for a change in vowel quality. Rather, the Attic initial α seems to have resulted from a sporadic assimilation to the vowel quality found in an adjacent syllable, as shown by the occurrence of the reverse assimilation in the Thessalian correpsondent of this form, Φακαδόμος (cf. Lejeune S254).

10. Cf. Sanskrit व्यास- and Locrian Φευσόντας for evidence of *w-; as with ναρός above, the fact that this form originally had a palatal *k' is irrelevant for Greek and thus for the change under consideration.

11. One irrelevant form with pre-Greek *twa- is σῶ 'sift', for its -α- derives from PIE *o, as shown by the long vowel in the related forms σήω 'sift' and ἀλευρό-της 'flour-sieve'.

12. Aeolic σόρξ may reflect an *o-grade, and thus show the effects of a sporadic extension of the well-known Aeolic raising of *o to ο before /m/ (as in νεμούς 'same, like', versus Attic ομο aún) to operating after other labial consonants (here *w, and cf. as well perhaps ομο 'from'
(Attic ὤ) from *apo, though word-final position may be more relevant for the development of this latter form). Most likely, then, this was a noun that showed root ablaut in its paradigm, justifying a reconstruction with a zero-grade for ὤφε.

13. The form ὤννων 'penis', while no doubt related to ὤνω, probably shows its -ο- vocalism from being a creation within Greek from a Greek root ὤν- (as in ὤνω). Adams (loc. cit.) plausibly attributes the -νν- to expressive gemination.

14. Chantraine (1968: s.v.) says the etymology for this verb is uncertain, for he feels that the derivation from *twer- is not securely established. Thus this form is perhaps irrelevant for the present discussion on different grounds. He is similarly skeptical about ὤνω.

15. Compare, for example, with regard to ὤνω and ὤφε, the formation evident in ὧνω 'come', from *gʷm³-y²/ο-; regarding the likelihood of a zero-grade in ὤφε, see footnote 12.

16. So Lejeune §100, n. 1, for example.

17. One further form that is difficult to judge is the name of the Pamphylian city which has the form Ἀσκενδος in Attic but occurs as Εσκεδους and later Εσκεδους on local coins (see Lejeune §71 n. 7); since this is a toponym and may---at least as far as the -οφ- -ος-alternation is concerned---show effects more of "phonétique plutôt que de la phonétique grecque" (Lejeune loc. cit.), it cannot safely be used for any determination of a change from *e to -ο- in Greek.

18. The assumption here is that a palatal consonant would be more likely to cause the retention of palatal quality in a preceding vowel, and a back consonant would be more likely to promote a change in vowel quality from palatal /e/ to back /a/.

19. Alternatively, the occurrence of -e- in the Mycenaean form may be the result of the presence of a morpheme boundary between the -τ-
and the -w- in odat-went-. If there were any conditioned change triggered already in Mycenaean times by the sequence [...twe...], the morphemic division would have permitted the restoration of the t of the root, or the w or even the e of the suffix. Given the absence of a morpheme boundary in oákoc, this Mycenaean form becomes less probative for a decision about the fate of *-twe-.

20. So noted by Lejeune (S100 n.4); see also Bekker (1821: 1096). The possibility of a loan-derivation for oákoc is initially attractive, in view of the suggestion of Burrow (1943-6: 347-8) that the presumed cognate Sanskrit tvac- is actually a Dravidian loan-word; however, even if originally a non-Indo-European word, oákoc/tvac- would still presumably have entered Indo-European fairly early on, because of the valid sound correspondences holding between the two forms.
References


