Against a Proto-Indo-European phoneme *a

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0. Introduction

The reconstruction of a primitive Proto-Indo-European phoneme *a beside *e and *o has often been challenged. This alleged phoneme has a limited occurrence, is absent from endings and suffixes, shows practically no ablaut, and is confined to a few isolated words not belonging to the so-called 'vocabulaire fondamental'. These considerations have led many scholars to the assumption that the phoneme *a was not Proto-Indo-European, but developed from (a combination with) *H₂ in the separate languages.

Nevertheless, lately a communis opinio seems to have formed that the reconstruction of a Proto-Indo-European phoneme *a is inevitable (as far as word-initial *a- is concerned, the reconstruction *H₂e- is generally accepted; cf., however, §5). The main reason for this view is the conviction that the words with *a, however limited their number may be, cannot be explained away because the substitution of *H₂(e) for *a is impossible.

In the following I intend to discuss the arguments in favor of a primitive phoneme *a which have hitherto been used, in order to demonstrate that the reconstruction of Proto-Indo-European *a appears to be superfluous in the light of recent research. The material which will be discussed has no pretension to exhaustiveness, but as far as the reliable etymologies are concerned, I think that the list given below is fairly complete (in sections 6 and 7 I cite in full the lists given in Kuryłowicz (1956:190ff.) and Wyatt (1970:29ff.)).

Before we proceed, some preliminary remarks may be necessary. The positive evidence for Proto-Indo-European *a comes from the so-called 'Southern' languages (Greek, Armenian, Italian and Celtic) and Tocharian, because in the other languages *a and *o merged. The Tocharian material is difficult because many problems of Tocharian vocalism are still in dispute. As there is no consensus about the conditions under which Proto-Indo-European *o yielded Arm. a, Armenian a cannot be used as independent evidence. There remain then only Greek and Italo-Celtic. The Italo-Celtic evidence, however, is not very strong, because both Latin and Celtic often show secondary a (cf. Kuryłowicz 1956:174ff.). In particular, Latin is notorious for its frequent irregular a-vocalism. It should therefore be borne in mind that the evidence of the Italo-Celtic languages is not indisputable and that the only reliable source of information about Proto-Indo-European *a is Greek.
1. *a after a resonant

The idea of this argument is that in a sequence RaC one cannot substitute *H₂ or *H₂e for a because both in RH₂C and in RH₂eC the resonant will be vocalized, RH₂C yielding RäC or ṯ, RH₂eC yielding VRaC (the timbre of the vowel depending on the resonant and the language) in Greek and Italo-Celtic. However, reconsidering the material, we see that the sequence RaC only occurs when the resonant is word-initial, cf.:

*mad-: Gk. madāö 'stream away', Lat. madēre ‘be wet, drunk’, Skt. mad- ‘be glad, drunk’;

*mag-: Gk. mageîn, mássō ‘to knead’, OS makôn ‘to make’;

*mak-: Gk. makrōs 'long, great', Lat. macer, OHG magr 'thin, meagre'; the long ä was reconstructed in Gk. mēkos n. 'length';

*iağ-: Gk. hagiōs ‘holy’, Skt. yaj- 'to worship';

*yas-: Gk. āstu n. ‘city’, Skt. vāstu n. ‘homestead’.

Recently, it was demonstrated by Beekes (forthcom.) that in the word-initial sequence RHC- not the resonant but the laryngeal was vocalized, yielding -a- in Italo-Celtic and Germanic and e/a/o (depending on the kind of laryngeal) in Greek. This means that the above-mentioned roots had an internal H₂, which was vocalized in the zero grade.

For the Sanskrit forms, which cannot be explained in this way, see the next section.

2. Indo-Iranian a corresponding with Southern ā

As the vocalized laryngeals yield IIr. i (or zero), an IIr. *a cannot go back to *H₂, while *-H₂e- is either unmotivated, or impossible (e.g., in the case of yaj-, the reconstruction *iH₂eɡ- would yield Skt. **iyaj- in the full grade and **iȝ- in the zero-grade of the root).

There is no uniform explanation for all correspondences between IIr. a and Southern ā, so that I shall subdivide the material in several groups.

2.1 Skt. pajrā ‘firm’: Gr. pēgnūmi ‘make fast’
Skt. svādāti ‘be sweet’: Gr. hēdūs ‘sweet’
Skt. bhājāti ‘to share’: Gr. phageîn ‘to eat’
Skt. rādāti ‘to bite’: Lat. rādō ‘scratch’
Skt. sāśadāḥ (pf) ‘to excel’: Gr. kekadmènos ‘to excel’
Skt. sād- ‘to fall’: Lat. cadere ‘to fall’
To these words we may add Skt. yaj- and mad- from the previous section and, probably,

Skt. skándati 'to jump, fall': Gr. skándalon 'trap', Lat. scando 'to ascend'

Elsewhere I have argued (Lubotsky 1981) that in Indo-Iranian the laryngeals were lost before mediae when the latter were followed by another consonant. This development should be seen in the light of the glottalic theory, according to which the Proto-Indo-European voiced unaspirated stops were actually glottalic. In Indo-Iranian, where the three laryngeals merged into a glottal stop, the Proto-Indo-European clusters of laryngeals with mediae became pʰ, which led to the loss of the glottal stop when the cluster was followed by a consonant. For details I refer to the above-mentioned article.

The roots of this section must then be reconstructed with an internal *H₂: *peH₂g-, *sueH₂d-, *bʰeH₂g-, etc. Note that Beekes' rule mentioned in the previous section explains the -a- in zero-grades of some of these roots in the Southern languages.

2.2 Skt. sasyá- n. 'crops', sasá- m.n. 'seed-field', Av. hahya- 'grain, crops', hahhuś n. 'fructus': ModW haidd, ModBr. heiz 'barley', Gaul, asiam (acc.) 'rye'.

Although this word-family is mentioned time and again as an example of Proto-Indo-European *a, the evidence of the Celtic words is far from certain. The -e- in Br. heiz can go back either to Proto-Celtic *-e-, or to PC -a/-o- with i-affection (Pedersen, VGK I 380–1). The same holds true for ModW haidd, which presupposes MW *heidd because every MW -ei- yields ModW -ai- in the final syllable (Pedersen, VGK I 282). Accordingly, the only evidence for Proto-Indo-European *a in this word is Gaul. asiam, which occurs in Pliny and where one must assume haplology for *sasiam. This seems to be a rather shaky basis for reconstructing -a- in the Celtic word.

Recently, Eichner (1982:26ff.) has proposed to connect Hitt. šešd- 'gedeihlich zunehmen, anwachsen' and šeša- 'Frucht' with the family of Skt. sasá-. This etymology, which appears convincing, proves that there was no a-vocalism in the root. A Proto-Indo-European root *ses- seems improbable, however, as two equal consonants do not occur within a root in Proto-Indo-European (Benveniste 1935:170). In view of the formation of Indo-Iranian words (-ya- is a denomin al suffix), it seems plausible to assume that *sas- was originally a noun meaning 'sown area, seed-field', whence sas-ya- 'belonging to the seed-field, rumentarius' = 'crops, seed-corn' with further specification of the original meaning in Celtic (a kind of crops = 'barley, rye').

It seems obvious that IIr. *ses- is a derivative from the Proto-Indo-European root *seH₁- 'to sow' (Goth. saian, Lith. sėti, Lat. sēmen, etc.), being an original -stem. IIr. *ses- continues then *sH₁-es-, a form which can also account for the Welsh and Breton words. Eichner (1982:27, n. 60) reconstructed a reduplicated
noun *se\-sH1\-o- which gives rise to a secondary root *ses-. I would still prefer to assume an s-stem, especially in view of Hitt. šešd- which must be a compound *s(H1)es\-dBH1\-. As is well known, the verbal root *d\beH1\- formed compounds with s-stems in Proto-Indo-European, cf. *mnr\-\beH1\- (Skt. medhá 'wisdom'), *mis\-dBH1\- (Gk. misthós 'salary' with thematicization), and, especially, *miHes\-dB\beH1\- (Skt. miyédha- 'sacrificial oblation').

2.3 Skt. šaśá\- m. 'hare' (<*šas-a-), Khot. saha- id.: Lat. cänus 'grey', Osc. casnar 'senex', OIc. ḥōs, OE hasu 'grey, brown', OHG haso 'hare', ModW ceinach, OPr. sasins 'id.'.

The evidence for *a is confined to Italic. ModW ceinach does not offer independent evidence because it may have the e-grade of the root (cf. the previous section; the o-grade is less probable as we would expect W. y, Pedersen VGK I 375).

The solution which I have in mind is to some extent parallel to that of the previous section. Our word for 'hare' meant originally 'the grey one'. The divergent stem-formation of this adjective (a-stem in Indo-Iranian, suffixes with -n- or -u- elsewhere) makes probable that the protoform was *kas-, to which productive suffixes were added.

It is tempting to compare this word with another Proto-Indo-European 'grey'-family glossed by Pok. 540–541 as ḱei-2 (OIr. ciar 'dark-brown' <*kei-ro-, OIc. hárr, OE hår 'grey, old' <*koi-ro-, etc.). However, as was demonstrated by Pedersen (1905:176ff.), the Slavic representatives of this family show the reflex of an aspirate in the anlaut: OCz šery, Pol. szary, OCS sērb 'grey' <*xoī-ro-. The initial x-, which is also found in Cz. šédý, Pol. szady, OCS sēdb 'with grey hair' <*xoī-d(h)o-, has not received a plausible explanation. An expressive aspirate, which is mostly assumed, does not seem probable for an adjective meaning 'grey'. Also a loan from Germanic is unattractive. I believe that Slav. *x- is here of the same origin as Skt. k\-h-, viz. a cluster with a laryngeal, cf. also Skt. śākhā 'branch', ORuss. soxa 'wooden plough, pole'. The same development *kH > *k̚b probably took place in Armenian, e.g. c'ax 'branch': Skt. śākhā 'id.;' xacanem 'to bite': Skt. khādāti 'to chew'; sxalim 'to fail': Skt. skhālai 'to stumble', etc. (Kortlandt 1976:91–92).

The conclusion is then that Slav. *xoī-ro-, xoī-d(h)o- points to *kHoi-ro-, kHoi-d(h)o-. In view of OIr. ciar, the laryngeal must be H1, the Proto-Indo-European stem thus being *kH1-ei-. Now if we assume that *kas- is somehow related to the other adjective 'grey', we must reconstruct *kH1-s-. The two adjectives for 'grey' appear to be derivatives of the root *kēH1- which is attested in Skt. šārā- 'spotted, motley', Gk. kērūlos 'name of a bird, prob. fulmar'.

Reconstructing an s-stem adjective *kH1-es, we can explain all the forms. The zero grade *kH1-s- accounts for the Italic and Welsh vocalism, while the e-grade of the suffix explains Skt. šaśā- and probably Norw. and Sw. dial. jase,
which points to Proto-Germanic -e-. As to OPr. sasins, we must assume either a secondary -o-vocalism, or postulate a proterodynamic genetive *kH1-os-s. Gmc. *has- is ambiguous, as it can continue both *kH1-os- and *kH1-s-.

The only remaining problem is the initial consonant in Indo-Iranian because *kH-V- would have yielded an aspirate. I believe that Indo-Iranian for a long time preserved a paradigm with ablaut. The forms *keH1-s- and *kH1-s-provided the initial Skt. ś-, which was then generalized.

2.4 Skt. taviti ‘to be strong’; Gk. taüs mégas, polús (Hes.).

The Hesychius’ gloss taüs is mostly combined with the Greek adjective sōs (att., Hom., Hdt.), sāos (Il. + ; dial.), sōs (Hdt.) ‘safe, healthy’. As Leumann (1959:266ff) has demonstrated, all these forms can go back to Pre-Greek *sāwos, preserved in Cypr. sawokléwês. What can be the Proto-Indo-European form of this adjective? The reconstruction *tu3-u-s, given in most dictionaries, is impossible, because the constellation *tu3-C (in laryngealist terms, *tuH2-C) would have yielded Gk. τῦ-.

In my opinion, the answer can be found in the fact that Greek adjectives in -wo- are often recent thematizations of original u-stems, cf. tanaós vs. tanteí, mānós vs. mānu-, stenos vs. stemu-, eteós vs. ētu-mos, etc. Also the two forms of the adjective for ‘empty’, kénos (<*kenwós) and keneós (<*kenewós), point to an original u-stem.

The Proto-Indo-European inflection of u-adjectives is not clear, but most probably these adjectives had hysterodynamic inflection, cf. Beekes (1985: 165–166), who reconstructs the following paradigm:

Nom. CeC-u-s or, in our case, *tueH2-u-s > Pre-Gk. *sauς
Acc. CC-eu-m *tuH2-eu-m > *tuwawa (?)
Gen. CC-u-os *tuH2-u-os > *tūwos

Thematicization of the nominative *sauς yielded sawos, while the introduction of i- from the oblique cases provided the nom. sg. taüs reflected in Hesychius’ gloss. It seems therefore that the connection with Skt. taviti is correct, but the -a- of taüs is not of the same origin as the -a- of taviti.

A parallel development to that described above can be found in Latin. The Proto-Indo-European M-adjectives were transformed into -i-stems in Latin, but before the suffix -i- was added, some phonetic changes had taken place. Nom. sg. *g*reH2-u-s (cf. Gk. barús, Skt. gurú- ‘heavy’ with zero-grade of the root) first became *graus, and only then was the suffix -i- added, resulting in the attested form gravis (Fischer 1982).

Another example of this kind was suggested to me by P. Schrijver: Nom. sg. *leH1-i-u-s > *leīus got an -i-suffix yielding *leīiús > leūs ‘smooth’ (Gk. leōs is ambiguous: it can continue either *leH1-i-ūos or *leīiūos with shortening in accordance with Osthoff’s Law).

The Sanskrit and Greek roots can contain a vocalic nasal and go back to Proto-Indo-European *lmβh-, which is supported by the Sanskrit causative rambhayati, lambhayati (Br. +) and late/present rambhate. The latter forms were explained by Kuiper (1937:148–149) as secondary, being due to the influence of the root ra(m)bh- ‘to lean’, which, according to Kuiper, is etymologically unrelated with rabh- ‘to seize’. The reason for this explanation is the Baltic -a-, which cannot go back to a nasal.

Nevertheless, the examination of the Baltic material shows unambiguously that the adjective *labas ‘good’ is original for the Baltic family, which makes the connection with the Greek and Sanskrit words semantically improbable. Toporov (1984:401ff.), who discussed the whole Baltic family, saw the problem and tried to find ‘the missing link’ in the verb lōbti, which can also mean ‘plunder’. This meaning, however, is most probably a secondary specification of ‘getting rich’, while the verb is derived from lūbas along productive patterns (Stang 1966:121–122).

Traditionally, Skt. rábhaḥ n. ‘violence, impetuosity’, comparative rábhyas ‘more impetuous’, superl. rábhiṣṭha-, etc., are also derived from the root rábh- ‘to take hold of, grasp’. This etymology is semantically plausible (cf. Skt. sūhas ‘violence’, sāhate ‘to conquer’ vs. Gk. ekhō ‘to have’) and, in my opinion, must be upheld. On the contrary, the often suggested connection of rábhaḥ with Lat. rabīēs ‘fury’, Toch. A rapurñe ‘passion’ (e.g., Mayrhofer KEWA III:43) is semantically difficult. The original notion of the rábhaḥ-family is ‘power, violence’, while the Latin and Tocharian words express strong emotions. I would rather propose to connect the latter words with Gk. éramai < *H₂r(e)H₂ ‘heftig verlangen, begehren, lieben’ and assume a root enlargement -bh- for Latin and Tocharian.

3. The a-diphthongs

The argument based on the a-diphthongs has a different character. The proponents of a primitive phoneme *a do not deny that in general every -ai- and -au- can go back to *-eH₂i-, *-eH₂u-, but they regard it as a theoretical possibility. In fact, however, the presence of a laryngeal in the a-diphthongs can be demonstrated.

As Kortlandt has shown (in several publications, cf. especially 1985:§3), the acute intonation in Balto-Slavic is due either to laryngeals, or to glottalic
obstruents. The acute tone in SCr. džėvėr, Lith. dieverį (acc. sg.) ‘brother-in-law’ or Lith. kaulas ‘bone, stalk’ proves that the diphthongs contained a laryngeal. Moreover, it can be demonstrated that the laryngeal preceded the resonant. Ilić-Svityč (1963:80 = 1979:63–64) pointed out that the retraction of the stress in Balto-Slavic known as Hirt’s Law took place only if the vowel which received the stress was immediately followed by a laryngeal, cf. BSl. *dʰóH-naH (Latv. duôña, Lith. diuona ‘bread’) vs. Skt. dhānāḥ pl. ‘grain’; BSl. *dʰúH-mos (Latv. dûmi pl., Lith. dûmai pl. (1) ‘smoke’, SCr. d’im (a) ‘id.’) vs. Skt. dhûmā- ‘smoke’, etc. The accent was not retracted if the laryngeal followed the resonant component of a diphthong, cf. BSl. *tenH-uós (Latv. tiēvs ‘thin’) vs. Gr. tanaós.

Therefore, the barytonesis in Latv. diēveris, Lith. dieveris (l in dialects), SCr. džėvėr ‘brother-in-law’ as opposed to the oxytonesis in Gk. dāēr (< *daiēr) ‘brother-in-law’ and Skt. devār- ‘younger brother of the husband’ proves that the Proto-Indo-European form of this word must have been *deH₂iuer-. In a similar way, Latv. kāûls ‘bone’, Lith. kāulas (l) ‘bone, stalk’ in comparison with Gk. kaulós ‘stalk, core’ point to a Proto-Indo-European form *keH₂ulōs.

Of course, not always can a Balto-Slavic cognate be found in order to demonstrate the laryngeal in -a-diphthongs, but it seems plausible to interpret every -ai-/-au- as -eH₂i/-eH₂u- as long as there is no counter-evidence.4 This counter-evidence is present for the root *sau̯s- ‘to be dry, to dry up’ (Gk. (h)aûos ‘dry’, Skt. śuṣ- ‘to become dry’, Lith. saûsas (4) ‘dry’, SCr. sûh ‘id.’, etc.). The circumflex intonation in Balto-Slavic and the short vowel in the Indo-Iranian zero grade prove that there is no internal laryngeal in this root. The root *sau̯s- was therefore considered as one of the most certain examples of the phoneme a. However, as I have shown elsewhere (Lubotsky 1985), Gk. (h)aûos ‘dry’, which is the only ground for reconstructing an -a- in the root *sau̯s-, does not go back to *huaûos < *sau̯sos, but to *ahuûos < *H₂susos. This is indicated by the reflexes of this adjective in the Greek dialects and by the hiatus in aŭstalēos ‘dry’, which contains the same root. Consequently, the Proto-Indo-European root for ‘(to be) dry’ must be reconstructed as *H₂sus-. In the above-mentioned article I have further argued that *H₂sus- was originally a perfect participle of the root *H₂es- ‘to be dry’ (Lat. āreo, Toch. AB ās-, etc.).

4. The root nouns

Three root nouns have been reconstructed with primitive a-vocalism and with lengthened grade ā in the nom. sg.: *sal- ‘salt’: Gk. háls, Lat. sāl, salis, Latv. sāls, OCS solb, Skt. salilā- n. ‘sea’, etc.
*gʰans- ‘goose’: Gk. khên, Lat. änser, Latv. zuoss, Slav. gos, Skt. haṁsá-, etc.;
*nās- ‘nose’: Lat. nāris, Skt. nāsā du., nasōs gen. du., OE nōse, OHG nasa, Lith. nōsis, Latv. nāss, OCS nos, etc.

Recently, Kortlandt (1985:§1.6) discussed the inflection of these words and reconstructed a hysterodynamic paradigm for the words for ‘salt’ and ‘goose’ and a proterodynamic one for the word for ‘nose’.

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<th>Balto-Slavic</th>
<th>Greek</th>
<th>Latin</th>
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<tbody>
<tr>
<td>nom.</td>
<td>Latv. sāls</td>
<td>hāls</td>
<td>sāl</td>
<td>*seH₂ls</td>
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<tr>
<td>acc.</td>
<td>OCS solnu</td>
<td>hāla</td>
<td>salem</td>
<td>*sH₂elm</td>
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<td>gen.</td>
<td>Balto-Slavic</td>
<td>halós</td>
<td>salis</td>
<td>*sH₂los</td>
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<tr>
<td>nom.</td>
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<td>khan</td>
<td>änser</td>
<td>*ghēH₂ns</td>
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<tr>
<td>acc.</td>
<td>Latv. zuosi</td>
<td>khāna</td>
<td>änser</td>
<td>*ghH₂ensm</td>
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<td>gen.</td>
<td>Slavic g-</td>
<td>khānos</td>
<td>änser</td>
<td>*ghH₂nsos</td>
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<th>Balto-Slavic</th>
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<tr>
<td>nom.</td>
<td>Latv. nāss</td>
<td>du.nāsā</td>
<td>nāris</td>
<td>*neH₂s</td>
</tr>
<tr>
<td>acc.</td>
<td>Latv. nāsi</td>
<td>(OP nāham)</td>
<td>nārem</td>
<td>*neH₂sm</td>
</tr>
<tr>
<td>gen.</td>
<td>OCS nos-</td>
<td>du. nasōs</td>
<td>nāris</td>
<td>*nH₂sos</td>
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One may argue about details of this reconstruction, but it is essential for our purpose that these words contained an internal laryngeal and had a mobile paradigm. There are several indications which point in this direction. First, the acute intonation of Lith. sōlymas ‘brine’ and Lith. nōsis, Latv. nāss must be due to a laryngeal (cf. section 3). The circumflex tone in Latv. sāls and zuoss can be explained by Kortlandt’s rule that ‘a laryngeal was lost after a PIE long vowel in Balto-Slavic’ (1985:§1.6). It must have originated in the nominative singular with lengthened grade, which was probably generalized in this category in Balto-Slavic.

It appears then, that the word for ‘salt’ was an l-stem, and the word for ‘nose’ an s-stem.

Moreover, Germanic formations with -d- (OHG ganzo, OE ganot ‘gander’) show that in any case the -s- of *gʰans- is of suffixal origin. The mobile paradigm of this word provides also a plausible explanation for the ‘Guttural-alwechsel’ in Balto-Slavic if we assume with Kortlandt that the palato-velars were depalatalized in the position before a syllabic n (Kortlandt 1978:241). Slavic then generalized the obstruent in the position before -n- (an interconsonantal laryngeal always yields zero in Balto-Slavic, cf. Kortlandt 1975:3) and Baltic the one in the position before -a-. This alternation is also an indirect proof for the laryngeal in the word, as there exists no evidence for an ablaut -a/-ø-.
Taking these considerations into account, we can explain the words for 'salt', 'goose', and 'nose' without recourse to a Proto-Indo-European phoneme *a.

5. Hittite a-: Southern a-

The initial a- in the Southern languages points to Proto-Indo-European *H₂e-, the usual reflex of which in Hittite is ha-. However, in some Hittite words we find only a- instead of ha-. To explain these cases, Kurylowicz postulated the fourth laryngeal, which colored an adjacent e to a, but, in contradistinction to H₂, disappeared in Anatolian. His theory is now generally rejected, and in order to account for the correspondence Hitt. a-: Southern a- several scholars reconstruct an initial vowel *a-. This reconstruction is unattractive because it violates two principles of the general theory of Proto-Indo-European root structure, viz. (1) every Proto-Indo-European root has an initial consonant, and, if one reconstructs roots like *au-, *ai- (cf. e.g. Eichner 1978:151, no.28), (2) every Proto-Indo-European root contains at least two consonants (Benveniste 1935:147ff.). Therefore, one would certainly prefer a solution without such far-reaching consequences.

An alternative explanation of Hittite a- was indicated by Kortlandt (1983:13; 1984:42), who assumed that in the neighborhood of Proto-Indo-European *o the three laryngeals fell together into *Ho/oH. This H merged with the reflex of H₁ in Hittite, so that the initial *H₂o- > *Ho- yielded Hitt. a-. Consequently, the correspondence Hitt. a-: Southern a- must be explained as *H₂o- generalized in Hittite versus *H₂e- generalized elsewhere.

6. Kurylowicz' list

It seems useful now to review the lists of correspondences testifying to primitive Proto-Indo-European *a- given by Kuryłowicz (1956:190–191) and Wyatt (1970:29ff.). Kuryłowicz does not include in his list onomatopoeias, expressive words, and words from children's language. Furthermore, he separately mentions words with word-initial a, secondary a, and words which are confined to the Southern languages. He then arrives at the list of 30 'rapprochements acceptables' which occur in both Indo-Iranian and Southern languages.

Of these 30 correspondences 13 are disputable:
Skt. kakúbh- ‘peak, summit’: Lat. cacúmen (in any case, remodelled after acúmen, WH I 127);

Skt. kárkat- m. ‘crab’: Gk. kárkaros·trakhús (Hes.) (Mayrhofer, KEWA I 169: uncertain);

Skt. kárrára- ‘hard, firm’: Gk. kárkaros·trakhús (Hes.) (Mayrhofer, KEWA I 179: uncertain, Furnée 1972:130: non-Indo-European);

Skt. kékara- n. ‘cave, hollow’: Gk. káta·orugmata (Hes.) (Mayrhofer, KEWA I 267: ‘unsicher’, Furnée 1972:180: non-Indo-European);

Skt. kesara- n. ‘hair, mane’: Lat. caesariēs ‘id.’ (Mayrhofer, KEWA I 268: ‘nicht ganz sicher’; one must assume a Prakrit form of *kesra-);

Skt. pánka- m.n. ‘mud, mire’: Mir. (gloss) an ‘water’ (cf. Vendryes, Lexique étym. A-71);

Skt. mañjú- ‘beautiful’: Gk. mágganon ‘philtre’ (Mayrhofer, KEWA II 553 does not even mention the Greek word);

Skt. riṣyati ‘be hurt’: Gk. raiō ‘break’ (this etymology is not mentioned by Mayrhofer KEWA III 62);

Skt. lúnáti ‘cut’: Gk. laiōn ‘ploughshare’ (Mayrhofer KEWA III 93: uncertain);

Skt. šátru- m. ‘enemy’: Olr. cath ‘battle’ (difficult, Mayrhofer KEWA III 294);

Skt. śávīra- ‘strong’: Olr. caur ‘hero’ (the Celtic family is problematic, Pedersen VGK I 62);

Skt. hēsas n. ‘arrow’: Gk. khaōs ‘shepherd’s staff’ (Frisk Gr.Et.W. II 1062: ‘sowohl formal wie semantisch unbefriedigend’. Mayrhofer KEWA III 611: ‘höchst unwahrscheinlich’).

Two correspondences are loans from a non-Indo-European language:

Skt. mandurā ‘horse’s stable’: Gk. mándrá ‘stable’;

Skt. śaṇā- ‘a species of hemp’: Gk. kánnabis ‘hemp’.

For three correspondences the evidence for *a is insufficient:

Skt. tvac- ‘skin’: Gk. sákos ‘shield’ (Hitt. tuekkas ‘body’, ‘person’ points to the e-vocalism; the Greek word can be a loan);

Skt. pastyā- n. ‘abode’: Arm. hast ‘firm, fixed’, Olr. fastr ‘id.’ (these words are probably not connected, cf. Mayrhofer, KEWA II 242);

Skt. śaṅkū- m. ‘peg, spike’: W. cainc, Olr. gec ‘branch’ (the Celtic words can contain -n-, while Germanic and Slavic point to the -o-grade; it seems to be no problem to assume ablaut in this -w-stem).

Skt. vaśā ‘cow’: Lat. vacca ‘id.’, if connected, can possibly be explained by Hamp’s rule (cf. note 1).

The remaining eleven items have now received an alternative explanation:

Skt. vāstu: Gk. āstū cf. §1;
Skt. bhaj-: Gk. phag-, Skt. yaj-: Gk. hagnós, Skt. šad-: Gk. kekadménos, and Skt. šad-: Lat. cado, cf. §2.1;
Skt. sasyá-: W. haidd, cf. §2.2;
Skt. šásá-: Lat. cānus, cf. §2.3;
Skt. devár-: Gk. dàër and Skt. šuṣ-: Gk. (h)aüos, cf. §3;
Skt. haṁsá-: Gk. khén, cf. §4.

7. Wyatt’s list

Wyatt in his book on the Proto-Indo-European a (1970) sought to demonstrate that Proto-Indo-European *a was reflected in Sanskrit as a when stressed and as ã when unstressed. For this purpose he collected all cases of Skt. a corresponding to Southern a which he could find. In Appendix II (1970:60ff.) 68 items are presented which, according to Wyatt, must be rejected. His own material on non-initial a constitutes 34 etymologies (1970:20ff.) plus two words on p. 39. 17 of this total of 36 items are mentioned by Kurylowicz and therefore discussed above.

Of the remaining 19 items two are disputable:

Skt kadanam ‘destruction’: Gk. kekadón ‘deprived of’ (doubts in Frisk I 811; if this etymology can be accepted, it can constitute another example of Indo-Iranian loss of laryngeals before mediae, cf. §2.1).

Skt. váñcati ‘totter, stagger’: Lat. vacillare ‘sway to and fro’ (doubts in Mayrhofer KEWA III 127; Ernout-Meillet II 710 about the Latin word: ‘Mot expressif, d’origine obscure’).

Three words contain syllabic nasals:

Skt. dásati ‘bites’: Gk. dakeïn (cf. Skt. dâṃstrā- ‘tusk’, Perf. dadaṁśa, OHG zangar ‘beissend, scharf’, etc.).

Skt. šamnīte ‘toils’: Gk. kámnō ‘work’ have the root *κemH₂-, cf. Gk. a-kmés, á-kmētos ‘unermüdlich’, perf. kékmēka, etc. The nasal presents go back to *Κm-n-H₂- with regular vocalization.

Skt. (parva)sáh ‘(glied)weise’: Gk. (andra)kás ‘man by man’ can go back to *Ky-s.

Six words can be explained if we reconstruct different ablaut grades for the Sanskrit word and its Southern cognate:

Skt. grásati ‘swallow, devour’ (<*gres-): Gk. gráō ‘gnaw, eat’ (<*grēs-).
Skt. dâmsah ‘marvelous power’: Gk. dênea ‘counsels, plans, arts’. The Greek word is mostly explained from *dansea with secondary a-vocalism on the
basis of forms like daēnai, etc., cf. Frisk I 382. Recently, Ruijgh (1970:319–20) proposed to see dēnea as a Homeric loan from Mycenaean, where dēnos is the regular phonetic development of *densos.

Skt. dhāyate 'sucks, drinks' (<*dʰH₁-ei-e-): Goth. daddjan 'suck' (<*dʰH₁-o-i-).

Skt. kalyaḥ 'healthy' (<*kol-i-): Gk. kalλίοn 'fairer' (<*kl₁-i-).

Skt. kanṭhaḥ 'young' (<*kon₁-): Gk. kainós 'new' (<*kṇ₁-).

Skt. jarās- f. 'old age' (<*gḗrH₂-es-): Gk. γέρας n. 'prize' (<*gḗrH₂-s).

In one word -a- goes back to *H₂-e:

Skt. dāyate 'divides, imparts' and Gk. daiomai 'divide, distribute' can both go back to *dH₂-ei-e-. For the root cf. Gk. datéomai 'divide among themselves', Skt. dītāḥ < *dH₂-(to,)- and Skt. dāṭi 'cut' < *dēH₂-.

For the other seven items I refer to the previous sections:

Skt. mādati: Gk. madāō, Skt. svādati: Gk. handānō, Skt. skāndati: Lat. scando cf. §2.1;

Skt. tavāti: Gk. taús cf. §2.4;

Skt. rābhate: Gk. laphūra, Skt. rābhah: Lat. rabiēs cf. §2.5;

Skt. kévala 'exclusively one's own': Lat. caelebs 'unmarried', if connected, cf. §3.

8. Conclusion

When Kuryłowicz discussed his own material on Proto-Indo-European a (1956:193), he was perfectly aware of its uneven value. He suggested an alternative explanation for several correspondences, but his ultimate conclusion was: 'Quoi qu'il en soit, nous hésitons encore, en face d'étymologies comme *kaiko-, *daiuer-, *kanku-, *kaso(n), *sauo-, *gāhs-, à considérer comme définitive la preuve de l'origine post-indo-européenne (méridionale) du vocalisme à' (1956:193). Since these etymologies have received a plausible explanation, the burden of proof is now on the shoulders of those who maintain that *a did not originate in the separate languages but was a Proto-Indo-European phoneme.

Notes

1. Recently, Hamp proposed a rule, according to which Proto-Indo-European *(C)uo- yielded Latin (C)ua- (1982:99). This rule, though not further specified by the author, seems to offer a plausible explanation for several Latin a's. I wonder if this rule of deentalization operated in the position after other labials (m, p, b) too.
2. As Debrunner has demonstrated (1938:171ff.), Skt. ṣiti-, sitimba- ‘white, whitish’ do not belong to this root. In Vedic ṣiti appears only as the first member of compounds, the second member of which began with a labial consonant. Accordingly, ṣiti is dissimilated from sitin.

3. I believe that the root *kie-, kl- (Pok. 541: Skt. šyāvā- ‘(dark-)brown’, Lith. šyvas, OCS sīvb ‘grey (of horses)’, Skt. šyāmā- ‘dark-colored’, Lith. šėmas ‘blue’, OCS sīmb ‘dark-blue’, probably also Lat. cīmex ‘bug’) mentioned by Pokorny under *kei- as ‘eine erweiterte Wurzelform gleicher Bedeutung’ is not an enlarged form of *kei-, but identical with it. If we reconstruct *kHlei- instead of *kei-, the zero-grade of this root is *kHli-, which in the position before a consonant yields *kiH₁-, in most Indo-European languages. The attested derivatives mostly show the zero-grade of the root, the full grade *kieH₁- being secondarily formed on the basis of *kiH₁-.

4. A problematic case is Gk. laiōs, Lat. laevus ‘left’ with an ai-diphthong, but a circumflex intonation in SCr. ḫjevi ‘id.’.

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