

INDETERMINACY IN ETYMOLOGY: RECONSTRUCTING THE PIE WORD FOR ‘SHEEP,’ WITH NOTES ALSO ON TOCHARIAN B *ās* ‘GOAT’ AND PIE **h₂éwis* ‘BIRD’

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ABSTRACT

The Indo-European word for ‘sheep’ is well-represented in most Indo-European groups. However, its exact shape in the proto-language is not as well-established as usually thought. The initial laryngeal has been reconstructed as **h₁-*, **h₂-*, or **h₃-* by various investigators and the noun’s accentual pattern often left undefined. The argument here is that we cannot reconstruct with certainty. It seems perhaps most likely that it was an acrostic **h₂ówi-/h₂éwi-* but Tocharian might also reflect either **h₂ówi-* and **h₃ówi-* and, if the latter, **h₃ówi-/h₃éwi-* would certainly be possible for other Indo-European groups. Knowing if PIE **h₃-* became χ - in Lycian would help delimit the number of indeterminacies but not solve the problem decisively. We will be left with multiple possibilities.

Keywords: Indo-European etymology, PIE laryngeals (**h₂*, **h₃*), ‘Sheep’ etymon (**h₂ówi-* ~ **h₃ówi-*), Acrostic nouns, Lengthened-grade Athematic formations (Hitt. *ās-*, Skr. *āsāt*), Brugmann’s Law, Tocharian B (*ās-*), Anatolian evidence, Comparative method.

ÖZ

Hint-Avrupa kökenli ‘koyun’ anlamındaki sözcük, Hint-Avrupa dil gruplarının çoğunda iyi tanıklanmıştır. Ne var ki, bu sözcüğün Ana Hint-Avrupa dilindeki (PIE) tam biçimi, genelde düşünüldüğü kadar iyi belirlenememiştir. Önsesteki gırtlaksız, farklı araştırmacılar tarafından **h₁-*, **h₂-* ya da **h₃-* olarak kurgulanmış; sözcüğün vurgu örüntüsü ise çoğu kez tanımlanmadan bırakılmıştır. Bu çalışmadaki temel sav, bunun kesin bir biçimde kurgulanamayacağıdır. En olası görünen çözüm, bunun kök vurgulu (acrostic) bir **h₂ówi-/h₂éwi-* biçiminde olduğudur; ancak Toharca, **h₂ówi-* ya da **h₃ówi-*

biçimlerinden birini de yansıtır olabilir. İkinci durum söz konusuysa, diğeri Hint-Avrupa grupları için **h₃ówi-/h₃éwi-* biçimi de kesinlikle olanaklıdır. PIE **h₃-*'nin Likçede *χ-*'ye dönüşüp dönüşmediğinin bilinmesi, belirsizliklerin sayısını sınırlamaya yardımcı olabilir; ancak sorunu kesin biçimde çözmez. Birden fazla olasılıkla karşı karşıya kalırız.

Anahtar Sözcükler: Hint-Avrupa etimolojisi, Ana Hint-Avrupa dili (PIE) gırtlaksızları (**h₂, *h₃*), 'Koyun' etimonu (**h₂ówi- ~ *h₃ówi-*), Kök vurgulu (acrostatic) adlar, Uzun dereceli atematik yapılar (Hit. *ās-*, Skr. *āsāt*), Brugmann Yasası, Toharca B (*ās-*), Anadolu dilleri kanıtları, Karşılaştırmalı yöntem

Though one of the most iconic and well-attested lexical items in the reconstructed PIE vocabulary, the exact shape of the word for 'sheep/ewe' (in Brugmann terms **owis*) is not as firmly established as one might think. Of the twelve well-attested Indo-European stocks Albanian and Iranian show no traces of the PIE word. And, leaving aside Tocharian for the moment, there are nine other well-attested stocks of which eight have been provided with dictionaries by members of the "Leiden School": Kloekhorst for Anatolian (2008:337-338), De Vaan for Italic (2008:437-438), Derksen for Slavic (2008:384), Matasović for Celtic (2009:301), Beekes for Greek (2010:1061-1062), Martirosyan for Armenian (2010:419), Kroonen for Germanic (2013:45), Derksen for Baltic (2015:74). To this set we can add Puhvel for Hittite (1991:279-280) and Melchert (2004) for Lycian. Of these four give no Tocharian data at all (Puhvel, Melchert, Derksen [2008], and Beekes). The others mention the Tocharian word for 'ewe,' giving more commonly the nominative plural *awi* (De Vaan, Matasović, Derksen [2015]); Kroonen gives the nominative singular *āw*,¹ Kloekhorst mentions *ā*-forms in Tocharian, but he, like everyone but Matasović, proceeds to ignore the Tocharian data. All but Matasović reconstruct **h₃owī-* (or most commonly **h₃ewī-*) tout simple.² Kloekhorst dismisses the Tocharian data as "outside his competence," Kroonen admits that the Tocharian shows "unexpected vocalism." On the other hand, Beekes claims positive support for **h₃ewī-* because of a lack Brugmann's Law in this word in Sanskrit.³

Of the Leiden School Matasović alone (2009), following Pinault (1997:191ff.), reconstructs an acrostatic paradigm **h₂ówis/h₂éwyos* (which would be phonetically [**h₂áwyos*] already in PIE), with generalization of the *-o-* in Armenian, Greek, Italic, and Celtic; the *-a-* in Germanic, Baltic, and Slavic being ambiguous (**o* and **a* having fallen together). Melchert (2004:81) also reconstructs PIE **h₂owis*, specifically rejecting **h₃ewis*,⁴ but makes no comment about its morphological structure.

¹ Aside from the nominative singular and plural the only other attested member of the Tocharian B paradigm is the obviously analogical genitive singular *awantse*.

² Well, not quite: Puhvel gives **h₃ewī-* (in the notation used here) or, quite surprisingly, **h₁owī-*.

³ Going outside the universe of dictionaries, one might note that Olsen's discussion (2018:70) of the word gives either **h₂owis* or **h₃owis* as possible proto-forms. As we will see, I think she's on the right track.

⁴ Just as he did ten years earlier in his 1993 Lycian dictionary.

But, even side from Tocharian, there are issues of various sorts with the almost universal preference for **h₃ewi-*, issues with both the Indic and Anatolian. The complication with Indic involves the intersection of this word with Brugmann's Law. For those researchers, and there are many, who reject the law there actually is no problem: any initial laryngeal followed by any short mid vowel would yield Sanskrit *a-*, such as we find in *ávis*. However, for those who do believe, and there are many, including Beekes, in some formulation of Brugmann's Law, whereby a PIE **-o-* in an open syllable followed by a resonant appears in Sanskrit as *-ā-*⁵ except where that **-o-* is "non-apophonic," i.e., when it does not alternate with **-e-*. An **-e-* being "colored" by laryngeal **h₃-* to **-o-* is assumed to make it non-apophonic because **-e-* and **-o-* have fallen together in this environment. The defenders of an initial **h₃-* in this word for 'sheep' are unanimous in saying we do not have lengthening in this word in Sanskrit because it was the *-o-* of **h₃owi-* was non-apophonic in PIE.

Though it's not universally accepted, I myself think that Brugmann's Law seems a safe bet for Indo-Iranian, though the original distribution has been blurred/disturbed by various analogical changes (e.g., the extension of the lengthened grade to derived causatives [like *sādayati* 'seats'] or the extension, outside the realm of Brugmann's Law, of the lengthened grade of the nominative singular of root nouns to the accusative singular [**pōds/podm̄ > *pōds/pōdm̄*]). Nevertheless, the notion of "non-apophonic *o*" seems very shaky to me. Laryngeal-coloring seems clearly to be of PIE date so we should have had **h₃owi-* already in this putative word for sheep, rather than **h₃ewi-*, with no suggestion that its **-o-* was phonetically distinct from any other **-o-* in that variety of late PIE that gave rise to Indo-Iranian. Thus, there would seem to be no reason why Brugmann's Law should not apply. So why not ***ávi-*? Labeling the **-o-* of **h₃owi-* as "non-apophonic" hardly satisfies any *phonetic* criteria.⁶ Moreover, there's no phonological reason why the initial vowel of Sanskrit *ávis* could not reflect the vowel of the weak cases of an acrostatic **h₂ówis/h₂áwyos*.⁷ And thus, it turns out that, whether there was a Brugmann's Law or not, with or without the "non-apophonic clause," Sanskrit offers no deciding vote on whether the word for sheep had an initial **h₂-* or **h₃-* and we are no further along than we were with the first seven Indo-European languages we first

⁵ That is Brugmann's Law in the Kleinbans-Pedersen formulation of 1900.

⁶ It would be possible, I suppose, to construct an argument that **h₃-* colored and **-e-* to **-o-*, say, distinct from **-o-* (and thus still an allophone of **-e-*), and thus not subject to Brugmann's Law and that this allophone of **-e-* only fell together (independently?) with **-o-* or **-a-* later in all branches of Indo-European. Possible I suppose, but it seems quite unlikely (and convoluted) and I don't recall seeing that argument ever having been made. Certainly, none of the lexicologists listed above asserting **h₃ewi-* as the ancestral form of 'sheep' have made that argument.

⁷ That the acrostatic paradigm seen in Sanskrit is inherited from Proto-Indo-European is supported by the same acrostatic paradigm seen in Greek, *óis/óios*. Note, too, the parallel generalization of the vocalism of the weak cases in Sanskrit *vís/vés* 'bird.' Compare the generalization of the vocalism of the strong cases in Latin *avis*. Both descend from a proterodynamic paradigm **h₂ówis/h₂wéis*. For 'bird' see further Blažek and Adams (2023 [with previous literature]).

considered. As far as the eight “Brugmannian” stocks are concerned the initial laryngeal could be any laryngeal.⁸

Turning to the situation in Anatolian, we see it is not as straightforward as one might wish, but for different reasons. In most Anatolian languages (e.g., Hittite and Luwian) PIE **-a-* and **-o-* fall together as *-a-* (or **-ā-* when stressed in an open syllable). But Lycian is different; PIE **-a-* is Lycian *-a-*, but PIE **-o-* is Lycian *-e-*. So, obviously, the merger had not taken place in Proto-Anatolian. Moreover, while Hittite and Luwian reflect both initial PIE **h₂₋* and **h₃₋* as *h-*, Lycian may be different. PIE **h₂₋* is definitely reflected in Lycian as χ ⁹ but the Lycian reflex of PIE **h₃₋* is disputed: some see it as zero (Melchert, 1994:305), others as χ (like **h₂₋*) (Kloekhorst, 2008:219-220). The primary datum is provided by χ *awa-* ‘sheep.’ All are agreed that this word owes its declensional class *-a-* to the influence of *wawa-* ‘cow’ (< **g^wow-ah₂₋*). The **χewa-* thus produced becomes χ *awa-* by regular *a*-umlaut (i.e., **-e-...-a- > -a-...-a-*). As noted, the χ - is taken by some as evidence that **h₃₋* was preserved in Lycian and, thus that **h₂₋* and **h₃₋* had not merged in Proto-Anatolian. However, examples of either putative development (χ or zero) are very few (one each) and deriving Lycian χ *awa-*, and the cognates in Hittite and Luwian, from **h₂owis* is altogether possible.¹⁰

χ *awa-* is the single lexical item that provides what positive evidence there is that **h₃₋* appears as χ - in Lycian. The negative evidence, i.e., evidence that suggests initial **h₃₋* was not preserved in Lycian, is Lycian *epirijeti*. This word has long been equated with Hittite *happirije/a-* ‘trade, sell, deliver,’ both taken as reflecting a putative PIE **h₃operye/o-* (see most authoritatively Melchert, 1993:17 and 2004:15 with previous literature). However, Rasmussen (1992:56-59) has argued that the meaning ‘sells’ given to the Lycian word is not assured and given mostly because of its formal resemblance with Hittite *happiriye/a-*. For Rasmussen it might possibly be ‘sells’ but might be several other things instead. Following Rasmussen’s lead but even more strongly rejecting the equation with Hittite *happerije/a-* is Kloekhorst’s discussion, 2008:296. If it should mean ‘sells’ then an equation with *happirije/a-* would be certain, but, if not, then not. Moreover, even if it should be ‘sells,’ the scarcity of evidence allows it to be the case that initial **h₂₋* and **h₃₋* remained differentiated in Proto-Anatolian and pre-Lycian and, in a development reminiscent of Saussure’s Law where a laryngeal disappears in the presence of an *o*-grade (e.g., *pórnē* ‘prostitute, whore,’ a derivative of **perh₂₋* ‘sell’), Proto-Anatolian **h₃₋* disappeared before the retained **-o-* of pre-Lycian (before it became the *-e-* seen in attested Lycian) but remained elsewhere (or at least before *-a-*). Only later did initial **h₂₋* and **h₃₋* fall together as χ - in Lycian. Alterna-

⁸ As noted above, Puhvel (1991:279-280) allows either **h₃owis* (my modernization of his transcription) or **h₁owis* (!).

⁹ Cf. *Xaha-* ‘altar’ and Hittite *hassa-* ‘fireplace, hearth’ (compare Latin *āra* ‘altar’) and χ *ba(i)-* ‘irrigate’ and Hittite *hapā(i)-* ‘pour water over’ (compare further Tocharian *āp* ‘water’).

¹⁰ This is, for instance, Melchert’s position (2004:81) who is firm in reconstructing **h₂owi-* on the basis of the Anatolian evidence.

tively, the original **h₃-* here was “assimilated” to **h₂-* when the following vowel became *-a-* and later **h₃-* disappears.

Ultimately, though **h₁-* is excluded (contra Puhvel), Anatolian, like the other Indo-European stocks examined so far, provides no compelling evidence for either **h₃-* or **h₂-* as the initial laryngeal of the word for ‘sheep.’¹¹

But Tocharian is possibly a game-changer. As in Lycian, PIE **-o-* remains distinct from PIE **-a-* in most cases.¹² The Tocharian B word for ‘ewe’ is *ā_(u)w* (nom. sg.), *awi* (nom. pl.) < **āwī*. Obviously, it belongs with the other words for ‘sheep’ and/or ‘ewe’ listed above. But how? If there had been a (PIE) **-o-* in the initial syllable, it would have appeared in Tocharian B as *-e-*. But if we start with an acrostic paradigm **h₂ówis/h₂áwyos*, the actual Tocharian result would be realized if, like the one possibility outlined for Sanskrit, the one where the initial laryngeal had been **h₂-* and the paradigm acrostic, the vocalism of the weak cases had been extended to the strong ones. If this is so, we have the interesting situation where the roots of two PIE words are phonologically identical (in their early PIE guise): **h₂ew-* ‘bird’ and **h₂ew-* ‘sheep.’ They are united too by their stem class, **h₂ew-i-* for both, but they are differentiated by their ablaut/accent pattern. **h₂ewi-* ‘bird’ was apparently a proterokinetic noun (strong cases **h₂éwi-*, weak cases, illustrated by the genitive singular, **h₂wéis*) as shown by Sanskrit *ví-* ‘bird,’¹³ while **h₂ewi-* ‘sheep’ was acrostic **h₂ówi-/h₂éwi-*.¹⁴ Here we would have a morphophonemic “minimal pair.”

However, there is another possible explanation the *ā-* of Tocharian *āw*. That *ā-* could be a reflex of PIE **-ō-*. That is, we might have a lengthened grade formation **h_{2/3}ōwis*. Other Tocharian words that have been seen as having lengthened grades are *āntse* ‘shoulder’ (< PIE **h_xōmso-*, cf. Latin *humerus*), *sāle* ‘ground; basis’ (cf. Latin *solum*

¹¹ Data from other Anatolian languages, e.g., Palaic or Lydian, would probably not be helpful here. In Palaic both initial **h₂-* and **h₃-* are at least graphically identical (for the latter, compare Palaic *hapari(ya)-* ‘hand over’). In Lydian there is no evidence for initial **h₃-* but **h₂-* has definitely disappeared and that means **h₃-* is almost surely gone too (for both languages see Melchert, 1994).

¹² Notably they fall together when original PIE **-o-*, in Proto-Tocharian **-e-* (accidentally aping the outcome in Lycian), is followed in the next syllable by Proto-Tocharian **-ā-*, i.e., **-e-...-ā- > -ā-...-ā-*, again showing the same outcome as Lycian. (This process is normally referred to as *ā*-umlaut by Tocharianists.) In Tocharian A *ā*-umlaut occurs only when the original **-o-* was unstressed while in Tocharian B it affected both stressed and unstressed **-e-*. The putative Proto-Tocharian **-e-* of ‘sheep’ was not followed by an **-ā-*, so it would not have been subject to *ā*-umlaut.

¹³ The Tocharian cognate also shows the reflex of the weak cases. It is *wiñce** ‘nestling,’ known only in the derived adjective *wiñcaññe* ‘pertaining to a nestling’ (Blažek and Adams, 2022 [2023]:341-343). This must be a putative PIE **h₂wi-nt-en-* (adjective as if **h₂wi-nt-en-yo-*). The ‘small animal suffix’ **-nt-* seen in Tocharian is the post-vocalic equivalent of the post-consonantal **-nt-* which gives Slavic *-et-* in names for juvenile animals, e.g., OCS *telęt-* ‘calf,’ etc. It should be re-iterated that this diminutive/juvenile formation for animals is a rather significant isogloss common to Tocharian and Slavic (Blažek and Adams, 2022[2023]:343).

¹⁴ Somewhat like Greek *ō(i)ā* ‘sheepskin,’ in showing a long *-ō-* after an initial **h_{2/3}-* in a derivative, is **h₂ōw(i)yom* ‘egg’ from **h₂awi-* (< **h₂ewi-*) ‘bird.’ In Germanic there is also the pair **mari-* ‘sea’ (> Modern English *mere*) and **mōra-* ‘moor.’ My intent here is not to explore the presence of lengthened grade formations in Indo-European, merely show that what I’m postulating as a possibility in Tocharian is paralleled elsewhere in Tocharian (see next paragraph) and elsewhere in the Indo-European world.

'ground'), *āsta* 'bones' (cf. Greek *ostéon*) *āšce* 'head'¹⁵ (cf. Greek *ózdos* 'branch' or *ostéon* 'bone') (cf. Darms, 1978:325, with previous literature). We find *i*-stems with **-ō-* in Germanic for instance (e.g., in Anglian varieties of Old English there is *dæg* 'day' (< Proto-Germanic **dōgi-* beside **daga-* 'day') and a few others of similar formation.¹⁶ As already pointed out, this Proto-Indo-European word for 'sheep' shows a lengthened grade derivative in Greek *ō(i)ā* 'sheepskin.'

Of course, in this latter case, both **h₂ōwi-* and **h₃ōwi-* are possible antecedents of the Tocharian form. What makes the possibility of a lengthened grade in the history of *āw* attractive is that we could then derive Tocharian B *ās-* 'she-goat'¹⁷ from a form with similar lengthened grade **h₁ōsi-* (cf. the similarly derived *awantaññe* 'pertaining to ewes' and *asantaññe* 'pertaining to she-goats'¹⁸), a derivative of **h₁es-* 'be, sit,' and thus originally 'goods, chattels.'¹⁹ It seems obvious that these two words have influenced one another morphologically in some respects, so an influence on the root vowel as well is certainly not out of the question. Of course, the influence might as well have been from 'she-goat' to 'ewe' as the other way around. Or, indeed, the "accidental" resemblance of the Tocharian reflexes of **h₂awi-* and **h₁ōsi-*, where the initial had become in both cases Tocharian **ā-* may have set the stage for further mutual influence.

So, we are in a sense back where we started. The question is, "was the initial consonant of the PIE word for 'sheep, ewe' an **h₂-* or an **h₃-*?" The answer would seem to be, "we can't be sure." The Sanskrit reflex *ávis* was taken as definitive evidence of **h₃-* by Beekes (and others) but, as we have seen above, it is not. In the past Pinault (1997) and I (Adams, 1999) have seen Tocharian B *āw* as definitive evidence for **h₂-* but again, as we have seen, it is not. (Though these latter accounts have the virtue of taking the Tocharian data into account.) Lycian²⁰ might be decisive, if it can be

¹⁵ Historically an *i*-stem, nom. sg. *āšce*, acc. sg. *āšc*, nom. pl. *āšcī*, acc. pl. *āštām*, whether **ōzd-i-* or **ōst-i-*.

¹⁶ Very similar to **dagaz* 'day' and **dōgiz* 'day' is **dalaz* 'valley' (> NHG *Tal*, Modern English *dale*) and **dōliz* 'valley,' the latter seen in ON *dæl* 'small valley' and *dæll* (< **dōljaz*) 'valley dweller.'

¹⁷ Also called 'doe' or 'nanny goat' (as a 'he-goat' is also a 'buck' or 'billy goat'), though not in my variety of English.

¹⁸ Both from secondary plurals, i.e., *āwántā** and *āsántā** (not attested but implied by *asantaññe*)? *-nta* and *-nma* are the two most productive plural formations in Tocharian B.

¹⁹ Hittite *āssu* 'goods, chattels' may be as if from **h₁osū* with geminate *-ss-* (thus as if **h₁ossu*) generalized from the underlying verb **h₁es-* when the verb occurred before consonant-initial endings (a la Melchert, 1994:151-152 [though he doesn't give this precise explanation for *āssu*]). Kloekhorst (2008:223-224) makes the same semantic connection (and a connection with Greek *eús* 'good, brave, strong [in war]' and Sanskrit *su-*) but starts from an extremely unlikely reduplicated **h₁io-h₁is-* with an unexplained **-o-* in the reduplicated syllable. Puhvel's derivation (1984:199ff.) from **ans-u* from **ans-* (Hittite *ass-/assiya-*) 'be favored' is phonetically plausible but semantically strained. However, that an adjective, 'dear,' derived from *ass-/assiya-* and a noun 'goods' derived from **h₁es-* should have secondarily become associated/conflated is quite possible. Further it should be noted that a root-noun **h₁ios-* or **h₁ōs-*, connected to **h₁ēs-* 'sit,' in my view a long-vowel iterative-intensive of **h₁es-* 'be,' by both Puhvel (1984:296) and Kloekhorst (2008:220), appears in Hittite *as-āwar/as-aun-* 'sheep-pen' (< **h₁ōs-ōw₁* or, Kloekhorst's preferred proto-form, **h₁is-ōw₁*).

²⁰ Or other Anatolian languages where 'sheep' is not yet attested.

determined that **h₃-* does not show up as *χ-*, but at present the evidence is altogether too exiguous.

The lesson learned, or perhaps relearned, is that our reconstructions are utterly dependent on our data and the access of new data will change, or potentially change, our reconstructions and, no, one cannot simply declare Tocharian to be “outside my competence” and ignore it—no more than one can ignore Greek or Germanic, etc. And, perhaps a bit unsettling, there is more than one possible, even plausible reconstruction: ultimately our reconstructions, not just this one, are to varying degrees and in varying ways, indeterminate.²¹

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²¹ My current best guess is that the very real mutual influence of *ās* ‘she-goat’ and *āw* ‘ewe’ results from the **h₂a-* of ‘ewe’ and the **h₁ō-* of ‘she-goat’ falling together as **ā-*, accidentally as it were, in Proto-Tocharian. Naturally, the semantic proximity of the two words would certainly reinforce that mutual influence.

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