

*H₃ in Anatolian

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One of the most serious problems confronting the linguist who is trying to establish the phonological history of Hittite and its sister language Cuneiform Luvian (hereafter simply Luvian) is the syllabary in which these languages are written. The cuneiform syllabary was a borrowed script which was not completely adapted to the needs of writing either language, and it obscures a number of important details. Specifically, there are phonological distinctions which can be reconstructed for Indo-European (and which might be expected in Proto-Anatolian) that the cuneiform syllabary apparently does not make. The problem that concerns us here is whether there was a distinction in Proto-Anatolian or its daughter languages between initial *h₂ and *h₃. Although possible reflexes of both sounds are written with the same signs in the cuneiform syllabary, evidence from Lycian, which is written in an alphabet that can make some of the distinctions which are obscured in the cuneiform syllabary, helps to clear matters up.

It is certainly beyond question that initial *h₂ becomes the sound that is written with signs for H plus vowel in Hittite and Luvian, and that the Lycian sound that corresponds to Hittite and Luvian *h* is a velar, presumably a velar spirant, written with χ (κ), *g* or *q*.¹ Several clear etymologies establish this. One of the best known of these is: Hitt. *hant*- "front" (in *hantī* "separately," *hanza* "front," "in front," *hantezziya*- "first"), Luv. *hantil(i)*- "first," *handawat*- "commander": Lyc. 3rd sing. pret. *χāntewete* "he led" and *χāntawata*- "commander," "basileus"² (IE *h₂ent-, *h₂nt- cf. e.g. Gk. *ἀντί* Lat. *ante*).³

The problem is with *h₃. There are several cases in which a Hittite or Luvian word with initial *h* can be compared with words in the other Indo-European languages with an *o that can perhaps be derived from *h₃(e). The best of these equations are: Hitt. *hāra(n)*- "eagle" (and Pal. *harā(n)*- : Gk. *ὄρνειον*, *ὄρνις*; Hitt. *hark*- "be destroyed," *harni(n)k*- "destroy," *harga*- "destruction" : O. Ir. *orgaid* "slays"; Hitt. *hāppar* "price," "deal," Hitt. (and Luv.?) *happe/inant*- "rich" : Lat. *opus*; Hitt. *hissa*- "axle, shaft" : Gk. *ὄαξ*. But there is a certain amount of evidence suggesting that *h₂ did not color a neighboring *o and *h₃ can only be reconstructed for any of these words when the o-vocalism of the non-Anatolian languages is completely anomalous and there is virtually no possibility that it is analogical. It is extremely difficult, however, entirely to exclude an o-grade, whether original or analogical, in many cases. The word for "sheep" illustrates the problem. On the basis of Luvian *hāwīs* (H. Luv. *hawa/i*-) and Lycian *χava*- we can reconstruct an initial laryngeal for the Indo-European word. The o-vocalism of Greek *ὄϊς* (Hmc. *oīs*), Latin *ovis*, and O. Ir. *oi* suggests that the laryngeal can be *h₃ (i.e. *h₃ewi-), but *h₂owi- is also possible.⁵

Even if any of these words can be confidently reconstructed with $*h_3$, it is not clear whether $*h_2$ and $*h_3$ remained distinct phonemes in Anatolian or whether they merged in a single h-like sound. Unfortunately, the writing system offers only ambiguities on this point, since the reflex of $*h_2$ and possible reflexes of $*h_3$ are both written with the same series of signs.

It has also been claimed that $*h_3$ was lost in Anatolian, and there are several plausible looking etymologies which seem to support this. For example: Hitt. *aniya*- "work," Luv. *ānniya*-id. (Pal. *aniya*-): Lat. *onus* ($*h_3en$ -); Hitt. *ārra*- "podex": Gk. *ὀππος* ($*h_3erso$ -); *ār*- "arrive," *ar*- "place onself," *arāi*- "arise": Gk. *ὠποπε*, *ὠπτο*, *ὀπνυμι*, Lat. *orior* ($*h_3er$ -); *arki*- "testicle": Gk. *ὀρχις* ($*h_3ergh$ -), and perhaps *ariya*- "consult an oracle" if this belongs only with Latin *orō*, *orāculum* and not also with Greek *ἄρα*, *ἀράομαι*.⁶

One family of words, however, Hittite *hāppar* "business transaction," "price" and its cognates in Anatolian and the other Indo-European languages, provides evidence that initial $*h_3$ was not only retained in Anatolian, it was in fact distinct from $*h_2$.

The o-vocalism of the Italic s-stem $*opos$ in Latin *opus* and the denominatives *operator*, Osc. *ūpsannam* "operandum," "faciendam" and Umbr. *osatu* "operator," "facito" points to initial $*h_3$ while Sanskrit *apas*- and Avestan *apah*- indicate that the s-stem $*h_3epos$, $*h_3epes$ - was Indo-European.⁷ Italic $*opos$ is found beside a related root noun $*ops$ (attested in the abl. sing. *ope*, and the nom. pl. *opes*, and implied by the nom. sing. *Opis*).⁸ $*Ops$ is found also in the compounds $*cōps$ (acc. sing. *cōpem*, abl. sing. *cōpi*),⁹ *cōpia*, and *inops*, and in Old Irish in the adjectives *somme* "rich" and *domme* "poor" ($*su$ -/ $*dus$ - op - $smiyo$ -). Taken by itself, $*ops$ can continue $*h_3eps$, $*h_3ops$, or $*h_2ops$. If the latter were the correct reconstruction, then it might be possible that the o-vocalism of Italic $*opos$ was analogical from $*ops$.¹⁰ The meaning of the two words, however, was not very close in Italic, and they seem to reflect a semantic split that must have taken place within Indo-European.

The semantic split is reflected in the other Indo-European languages. On the one hand, there are words from $*h_3ep$ - which refer to "work" or "action" such as Italic $*opos$, Indo-Iranian $*apas$ -, Old Norse *efni*, "material," *efna* "work," Old English *efnan* id. (Gmc. $*aḥnia$ -, denom. $*aḥnjan$), Old High German *uoben* "do, practice, celebrate," Old Saxon *obian* "celebrate" (Gmc. $*ōbjan$, cf. Mod. Germ. *üben*), and Old High German *uobo*, *lantuobo* "farmer," *uobāri* "farmer." On the other hand, many of the Indo-European languages attest words from $*h_3ep$ - which mean "wealth" or "abundance," perhaps as the products of work or action. In addition to Italic and Celtic $*ops$, these include, for example: Sanskrit *apnas*- "wealth," Avestan *afnavant*- "having wealth," and perhaps Lithuanian *āpstas* "abundance," *āpstus* "wealthy."¹¹

The meaning "wealth," "abundance" is also found in Anatolian, in Hittite (and Luvian?) *happenant*- or *happinant*- "rich," and in Hittite *happe/inēss*- "become rich," and *happe/ināhh*- "make rich." A primary verb from $*h_3ep$ - is perhaps found in the hapax *ha-ap-zi* "be abundant (?)" (KBo XI 34 L. 5). *Hāppar* "price," "deal" (e.g. OH *ha-a-ap-par* KBo VI 2 II 51, *ha-a-ap-pa-ra-az* ib. II 54, *ha-ap-pa-ri*- KUB XXIX 29 Vs 11¹² and the denominatives *happariya*- "hand over" (OH *ha-ap-pa-ri-e-nu-un* KBo III 22 L. 20), and *happarāi*-, *happirāi*- "sell"¹³ provide an interesting middle ground between the ideas of "wealth" or "abundance" and action which results in wealth. The commercial meanings of these words presumably reflect the fact that commerce was more sophisticated in second millennium Anatolia than it was in the rest of the Indo-European speaking world.¹⁴

A noun spelled *ha-ap-pi-ir* is found in a Neo-Hittite text. KUB IV 3 + KBo XII 70 (*ha-ap-pi-ir* Rs 14, *ha-ap-pi-ir-ma* Rs 15). *Happir* clearly means "price" (nu-us-si *ha-ap-pi-ir* pe-[es-ke] "give him a price" Rs 14), and seems, therefore, to be related to *hāppar*. Another Anatolian noun from $*h_3ep$ - is Hittite *hāppiriya*- (NH also *hāppiri*-) "city," "settled place." This is usually written with the ideogram URU (e.g. URU-ri KBo VI 2 I 7, KBo XX 64 Rs 11, URU-pi-ra-as KUB XXXVI 62 L. 8, URU-az KBo III 22 L. 5, URU-ya-an ib. L. 55, URU-ri-ya-[an] ib. L. 70),¹⁵ but a dative is spelled out as *ha-a-ap-pi-ri* in KBo V 6 I 17 (Neo-Hittite).¹⁶ The meaning "city" or "settled place" perhaps indicates that the *hāppiriya*- was originally a market place,¹⁷ or the meaning may be derived from the idea of a "worked over," "tilled" or "built up" place (cf. e.g. OHG *uobo* "farmer, colonus").

That *hāppar* and its cognates did have initial $*h_3$ and that $*h_3$ remained distinct from $*h_2$ is confirmed by the Lycian cognate *epirije*- "sell." The word is found in the third person singular active, *epirijeti* (TL 111), and it was originally identified by Laroche (1958, 171–172). Since it is clear that initial $*h_2$ resulted in a Lycian spirant, the initial vowel of *epirije*- suggests that unlike $*h_2$, $*h_3$ was lost in initial position in Lycian. At the very least, this means that initial $*h_2$ and $*h_3$ were distinct phonemes in Anatolian.

It can, however, be argued that the loss of the initial laryngeal in *epirije*- is due to a secondary sound change, perhaps one peculiar to Lycian. Tischler (1980, 510 n. 52), who notes the importance of *epirije*-, prefers this explanation, and Oettinger (1979, 353 n. 200) suggests that *epirije*- has a prothetic vowel. There is, however, no evidence to suggest that prothetic vowels developed before $*p$ in Lycian (cf. *pri*-, *prije*- and *pere* from $*pr(e)i$ - and $*pro$ ¹⁸). More importantly, several considerations indicate that the root vowel of the noun from which *epirije*- was derived had the full-grade.

The stem of *epirije*-, of course, recalls the stems of *happirāi*- "do business," *hāppiriya*- "city," "settled place" and the hapax *happir* "price." For the vowel of the initial syllable, the correspondence Hittite *a* : Lycian *e* is well known. In other examples the Hittite and Lycian vowels are from a full-grade $*e$, $*o$ or $*a$ (cf. e.g. Hitt. *kweras*, $*kweran$: Lyc. *tere*, *terē* < $*kwer$ -; Hitt. *pāt*- (*patā*-), Luv. *pāt*- : Lyc. *ped*- < $*pōd$ - or $*pēd$ -; and Hitt. *āppan*, Luv. *āppan*, Lyc. *epñ* < $*apñ$).¹⁹

The resemblance between *epirije*- and *happirāi*-, however, is probably more or less coincidental since *happirāi*- is clearly more recent than *hāppirāi*-. It is first found in Middle Hittite texts (e.g. *ha-ap-pi-ra-[si]* KUB XXIII 77 + L. 64; *ha-ap-pi-ra-at-te-ni* KUB XXIII 72 Rs 58) while *hāppirāi*- is attested in the Old Hittite copy of the first part of the Law Code (3 sg. pres. *ha-ap-pa-ra-iz-zi* KBo XIX 1 II 17; 3 sg. pret. *ha-ap-pa-ra-a-it* KBo VI 2 II 52).²⁰ This suggests that *happirāi*- is a replacement for Old Hittite *hāppirāi*-. The most likely source for the vowel of the second syllable of *happirāi*- is contamination with *hāppiriya*- "city," "settled place."

Although Oettinger (1980, 147–149) reconstructs a nominative $*h_2p$ -ēr and claims that this is directly attested in *happir*, the hapax *happir* probably also does not have anything directly to do with *epirije*-. The text in which *happir* is found, KUB IV 3 + KBo 70, is not particularly old, and there is little reason to believe that it preserves archaisms. In the Inhaltsübersicht for KBo XII 70, Otten suggests that the text, which is a copy of Akkadian omens, is a school exercise. It seems very unlikely, therefore, that *happir* represents an archaic form of the word for "price," or that it reveals very much about the Anatolian or Indo-European paradigm of *hāppar*. Instead, *happir* can probably be considered a mistake,

perhaps based on a folk or spelling etymology to *hāppiriya* "city, settled place" and *happirāi* "do business."²⁰

Hāppiriya itself appears to continue something original, and it (along with *happiriya* "hand over") is probably the word that is best compared with *epirije*. In phonological terms, the vowels of the second syllables of *epirije* and *hāppiriya* can continue Indo-European *i since a correspondence Hittite *i* : Lycian *i* is found in Hittite **mēlit* (Post OH *milit*)²¹ : Lycian *melite* (μελιτη) < Indo-European **melit*. A Proto-Anatolian **hap-ir* (Indo-European **h₃ep-ir*), however, would be very unlikely in morphological terms. The vowel of the second syllable cannot continue Indo-European *e if a correspondence between Hittite *e* and Lycian *e* (< *a) is found in Hittite *kweras*, **kweran* "field" (*kwer* "cut") : Lycian *tere*, *terā* "division of an army." Unaccented *e would seem to be ruled out by the correspondence Old Hittite *i* : Luvian *a* in Old Hittite *nēpis* : Luvian *tapassa* (Indo-European **nebhes*-), since this implies that unaccented *e became *a (> Lyc. *e*) in the Luvian branch of Anatolian. The vowel of the second syllable can, however, continue Indo-European *ē. This is indicated by the correspondence Old Hittite *i* : Luvian *i* or *ī* : Lycian *i* seen in Old Hittite *kissar* : Luvian *īssari*, *isri* : Lycian *izri*. The Anatolian words come from an earlier **ghēs-r*, since **ghes-r* should result in Luvian **iyass(a)r* with *a* rather than *i*. For the reflex of **ghe* in Luvian, cf. *tiyammī* from the locative stem **dhgh-em* beside nominative-accusative **dhegh-ōm* in Hittite *tēkan*.

We can probably reconstruct Proto-Anatolian **h₃ap-ēr* as the noun from which *epirije* and *hāppiriya* are derived, since the plene writing in NH *ha-a-ap-pi-ri* points to a full-grade accented root. Although a double full-grade, **h₃ap-ēr* (Indo-European **h₃ep-ēr*) would be unlikely morphologically, the full-grade root **h₃ap-* can be analogical from the related **h₃ap-ar* (Hitt. *hāppar*, Indo-European **h₃e/op-ī*), which is surely not an Anatolian innovation. Anatolian **h₃ap-ēr* then, would represent an earlier **h₃p-ēr*. In functional terms, **h₃pēr* could well be a collective beside singular **h₃e/op-ī*.²²

The relationship of the stem *happe/in(a)-* to *hāppar* and **h₃apēr* is not entirely clear.²³ In the first place, the vowel of the second syllable of *happe/in(a)-* is written with the ambiguous sign *PI* (i.e. *ha-ap-PI-na*), and it cannot, therefore, be determined whether *happe/inant-*, *happe/inēss-* and *happe/ināhh-* had a stem with *e* or *i*. An Old Hittite *happēn-* should continue an earlier **h₃(e)p-ēn-* (cf. *witēn-* e.g. in NH dat.-loc. sing. *ū-i-te-e-ni* KBo V 2 II 12 from **wed-én-* for **ud-én-* beside nom.-acc. *wātar* < **wod-ī*). If *ha-ap-pe/i-na* can be read as *happēn(a)-*, then it could continue the oblique or locative stem of **h₃e/op-ī* or **h₃p-ēr*, beside **h₃ep-n-* (for **h₃p-n-*) in Indo-Iranian **apnas-* and Germanic **aḡnia-*. However, if the vowel of the second syllable was Old Hittite *i* (i.e. *hāppin-*) then the word could not be derived from an *r/n*-stem.

Unfortunately, it does not seem to be possible to determine whether *happe/inant-* is Luvian as well as Hittite. The word is found once with the "Glossenkeil" (KUB XVII 24 II 17, NH), but this does not by any means guarantee that *happe/in(a)-* is a genuine Luvian word.²⁴ An accusative plural with the Luvian ending *-anza*, *ha-ap-pe/i-na-at-ta-an-za* is found in KUB XXXVI 49 IV 9, a text which is not otherwise especially Luvian looking.²⁵ This does not, however, provide any more certain evidence that the word is really Luvian, since the Luvian accusative plural endings are sometimes found with stems that are clearly Hittite (cf. e.g. *i-da-a-la-u-wa-an-za* KUB XXIX 7 II 29 with Hittite *idālu-* instead of Luvian *āduwāl-*).

This is not simply hairsplitting. It is otherwise well known that **e* should result in Luvian *a*, and this indicates that if *happe/inant-* is a genuine Luvian word, then it cannot continue **h₃(e)p-en-* from an *r/n*-stem. However, if *happe/inant-* is Luvian, then the vowel of its second syllable can be from **ē*, **ī* or **ei*. Since **h₃(e)p-ēn-* would not be likely in morphological terms, then *happe/inant-* should be from **h₃(e)p-ī-no-* or **h₃(e)p-ei-no-*. In this case, Luvian *happinant-*, and most likely Hittite *happinant-*, would be from a derived adjective in *-*ī-no-* or *-*ei-no-* "pertaining to wealth," "wealthy" of the type seen in Sanskrit *devīnah* and Latin *divīnus*.

To sum up: It is well known that initial **h₂* was preserved in Hittite and in Luvian-Lycian. Lycian *epirije* "sell" and Hittite *hāppiriya* "city," "settled place," which can be derived from an Anatolian **h₃ap-ēr* (for **h₃p-ēr*) furnish evidence for the history of **h₃*. The correspondence Hittite *h* : Lycian zero in these words shows that initial **h₂* and **h₃* remained distinct in Proto-Anatolian and in the Luvian-Lycian branch of Anatolian. Although direct evidence for a distinction between **h₂* and **h₃* in Hittite is not available because of the limitations of the writing system and it is possible that they had merged in a single sound written with the signs for *H* plus vowel, this is not very likely since Hittite is usually more conservative than Luvian-Lycian.

However, since **h₃* was preserved in Hittite, whether or not it was distinct from **h₂*, etymologies which depend on a loss of initial **h₃* have to be revised. In many cases, this is relatively simple. For example, *ārā-* and Greek *ἄρα* can be derived from **h₁orso-*, *ār-*, *ar-*, *arāi-* while Greek *ᾠροπε*, *ᾠρο* and *ᾠρομμ* and Latin *orior* can be from **h₁er-*, and *arki-* and Greek *ᾠρχος* can continue **h₁orgh-*.²⁶ *Ariya-* "consult an oracle" can be from **h₁ī-ye/o-* and related to Homeric *ἐπέω*, *εἰπομαι* "ask" (**h₁r-eu-*, **h₁r-u-*) rather than to Latin *orō*, *orāculum*.

Finally, the equation Hittite *h* : Lycian zero has further implications for our understanding of Indo-European phonology. The initial consonant of Lycian *χava* and Luvian *hāwīs* can now be seen clearly to continue **h₂* instead of **h₃*. Therefore, the o-vocalism of Greek *ὄς*, Latin *ovis* and Old Irish *oi* points to an o-grade root, and this in turn provides an additional piece of solid evidence that **h₂* did not color a following **o*.²⁸

Notes

- ¹ For the writing of Lycian reflexes of laryngeals and for the transcription of Lycian *k* as *x*, see Houwink Ten Cate (1961, 111–112) and Ševoroškin (1968, 168).
- ² See Heubeck (1979, 247–260) on the meaning of *χῆται*.
- ³ The correspondence Hitt. *h*, *hh* : Lyc. *x*, *g* or *q* is, of course, also found in medial position, e.g. Hitt. *tarh-*, *tarhu-*, *taruh-* "conquer, prevail over," Luv. *D₁Tarhunt-* "the Storm God" : Lyc. *trqqas*, *trqqis*, *trqqūt* id. (IE **trh₂(u)-*, or Luv. 1 sg. pret. ending *-ha* (Hitt. *-hhun*) : Lyc. *-xq*, *-gq* (Anatol. **-h₂a*). The details of this, however, are much less clear than the development in initial position. It is also not clear whether the different Lycian spellings reflect a split, but see, for example Ševoroškin (1968, 168) and the very important findings of Davies (1982/3) on lenition in Luvian.
- ⁴ Evidence for a lack of coloring of the vowel in the sequences **h₂o* and **oh₂* is summarized by Beekes (1972). Alternative views are those of Ruijgh (1970/71), Kortlandt (1980, 127–129) and Lindeman (1981, 23–31).
- ⁵ For example, Oettinger (1979, 367 n. 212) reconstructs **h₂owi-*. For **h₂owi-* as a possibility, see Beekes (1972, 129 with n. 14) and Rix (1976, 69). **h₃ewi-* is reconstructed by, for example, Lindeman (1970, 35 and 1982, 27), Puhvel (1965, 88 and 92), Hamp (1978, 67 n. 7), Rix (1976, 46 and 146), Schindler (1969, 153 n. 60) and Tischler (1980, 502 n. 36).

- ⁶ For *h₃ in *aniya-* see, for example, Oettinger (1979, 345) and for *h₃ in *ār-* and *ar-*, see Rix (1965, 28–29 n. 12 and 1969, 92–93), Eichner (1979, 84) and Oettinger (1979, 369, 404 n. 13, 479, 523 and 546). Initial *h₃ is reconstructed for *UZU āra-* and for *arki-* by Tischler (1980, 502). Eichner (1973, 81–82 and 1979, 87) and Oettinger (1979, 43) reconstruct *āk(k)-* “die” with *h₃ (pf. *h₃e-h₃-ok- : *h₃e-h₃k-) and compare Gk. *ὥκός*, Skt. *āsu* and Lat. *decior*, but this etymology is not very convincing semantically. *Arīya-* was connected with Lat. *drō* by Pedersen (1934, 47–48) and Tischler (1977, 56–57 with Pokorný, 781) adds Russ. *orirb*, Skt. *āryate* and Gk. *āpa* and *ἀράμαι*. However, if the *dr-* of *drō* and *orirb* does continue *h₃er-, then *āpa* and *ἀράμαι* do not belong here, since the *a* of these words should be from *h₂(e)r-.
- ⁷ *Apas-* is found beside a noun *āpas-* “religious work” (2 Vedic examples: see Grassmann (1955, 174)). The *ā* of *āpas-* recalls the *ō of Osc. 3 sg. perf. *upsed* “fecit,” 3 pl. *uupsens* “fēcērunt” and OHG *uoben*, OS. *obian* etc.
- ⁸ Ernout-Meillet (1959, 463–464).
- ⁹ Ernout-Meillet (1959, 464).
- ¹⁰ This is suggested by, for example, Ernout-Meillet (1959, 466).
- ¹¹ Szemerényi (1964, 146 with n. 3) prefers to derive the Lithuanian words from *ap(iē)* “around” plus *steh₂- “stand.” Greek *ἄφενος*, a word which has been compared with *happe/inant-* and *apnas-* etc., is most likely a loanword from an Anatolian language. See Szemerényi (1964, 147) and Tischler (1977, 165) with references.
- ¹² For the analysis of *ha-ap-pa-ri-us* in KUB XXIX 29 Vs 11 as dat. sg. *hāppari* plus the acc. sg. enclitic pronoun *-us*, see Neu (1974, 107).
- ¹³ For the meanings of *happariya-* and *happarai-/happirai-*, see Oettinger (1979, 352–353).
- ¹⁴ See Neu (1980) on various terms associated with commerce in Hittite Anatolia.
- ¹⁵ *Happiran* in KUB XIII 2 IV 16, which Neu (1974, 108 n. 244) lists as a form of *hāppiriya-* “city,” should probably be a participle from *hāppiriya-* “give over” = “sell” (i.e. *hāppir[iy]an*). The passage in which it occurs reads: IV 15 na-as-ma-za da-a-an ku-is-ki ku-it-ki har-zi (16) na-as-ma-za ha-ap-pi-ra-an ku-is-ki ku-it-ki har-zi “oder jemand etwas (weg)genommen hat (16) oder jemand etwas verkauft hat” (translation, von Schuler, 1957 p. 51).
- ¹⁶ For the analysis of *hāppiriya-* as an *-iya-* (*-iyo-) stem from which an *i*-stem *hāppiri-* was back-formed, see Neu (1974, 108–109).
- ¹⁷ See Neu (1974, 108) for this meaning.
- ¹⁸ For Lyc. *pere*, and Hitt. *parā* from *p₃rō, see Kimball (1983, 766–777).
- ¹⁹ For Lyc. *tere* : Hitt. *kweras*, see Pedersen (1945, 47–50). According to Laroche (1967, 57–59) *tere* is a different word, “everywhere.” Hittite *pāt-* (patā-) should, of course, continue *pōd-, and Luvian *pāt-* and Lycian *ped-* can be from *pōd- or *pēd-. For the long vowel, see Kimball (1983, 864). For Hittite and Luvian *āppan* and Lycian *epā* from *apm, see Kimball (1983, 138 and 766).
- ²⁰ It is very unlikely that the spelling *ha-ap-pi-ir* (or *ha-ap-pe-er*) indicated that the sign *PAR* can sometimes be read as *PI-IR* (*PE-ER*) as is claimed by Oettinger (1980, 149). Although a few examples of an apparent alternation *PAR* ~ *PI-IR* or *PE-ER* are found, they are by no means conclusive, and they may admit of other explanations. See Kimball (1983, 131).
- ²¹ For Post Old Hittite *mi-li-it* for Old Hittite **mēlit*, see Kimball (1983, 13).
- ²² Another example of a collective in *-ēr might be Hittite *hasduēr* “twigs, brush”; see Schindler (1970, 9).
- ²³ *Happe/in(a)-* has been considered either a form derived from the oblique stem of an *r/n*-stem of which the nom.-acc. is represented by *hāppar*, or a form in *-e-no-. See the references provided by Tischler (1977, 165–166).
- ²⁴ See Güterbock (1956, 131) on the unreliability of the Glossenkeil here.
- ²⁵ Hoffner-Güterbock (1980, 21) consider KUB XXXVI 49 an Old Hittite text with the old ductus, but linguistically, the text is not especially archaic looking.
- ²⁶ For *h₁orso- see, for example, Eichner (1974, 54). Initial *h₁ in *ār-* etc. and in Skt. *āra* and Gk. is indicated by the *ē* of *ἐπερο-ὥρωθῆν* (Hesych.) and the second element of *λα-ἐρ-της*. For *h₁orgh- in *arki-* and *ῥαχis* see Watkins (1975, 12) and Beekes (1969) – with reservations.
- ²⁷ See Kimball (1983, 632 n. 111) for this etymology.
- ²⁸ Another example of *h₂o resulting in *o* rather than *a* would be Gk. *δοτέον*, Lat. *os* : Hitt. *hastāi-*, Luv. *hāssa-* etc. The Greek and Latin words should continue an *o*-grade *h₂ost- since the *a* of Welsh *asgwrn* (*h₂est-) points clearly to *h₂ (Lionel Joseph, personal communication).

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The two senses of the term 'anaphora' and their functional unity: evidence from the Rigveda

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0. The term 'anaphora', when applied to linguistic contexts, has from classical antiquity been used in two distinct senses. The earliest securely datable employment of the term in linguistic value given by Liddell-Scott-Jones in their Greek-English Lexicon is the adjectival form ἀναφορκός appearing in the Τέχνη of Dionysius Thrax (second century B.C.). In listing various types of nouns (including proper noun, epithet, homonym, synonym, eponym, ethnic, and pronoun¹) he mentions the "anaphoric [sc. noun] . . . , which is also called homoiomatic [i.e. denoting resemblance] and deictic and antapodotic [i.e. correlative]" (Ἀναφορικόν [sc. ὄνομα] . . . , ὃ καὶ ὁμοιωματικὸν καὶ δεκτικὸν καὶ ἀνταποδοτικὸν καλεῖται Uhlig 1883: 40). He next characterizes the anaphoric noun as signifying likeness (τὸ ὁμοίωσιν σημαῖον), giving as examples the Greek pronouns τοιοῦτος 'such (a)', τοσοῦτος 'so great, so many, so much, etc.', and τηλικούτος 'so great, so old'. This same usage is found three centuries later in the second century A.D. treatise Περὶ Ἀντωνυμίας of Apollonius Dyscolus. The latter, however, distinguishes between deictic and anaphoric roles, noting that "every pronoun is either deictic or anaphoric" (Πᾶσα ἀντωνυμία ἢ δεκτικὴ ἔστω ἢ ἀναφορικὴ Schneider 1878: 9), but that "first and second person pronouns are only deictic, third person pronouns both deictic and anaphoric" (αἱ κατὰ πρῶτον καὶ δεῦτερον μόνως δεκτικαί, αἱ κατὰ τὸ τρίτον καὶ δεκτικαὶ καὶ ἀναφορικαί Schneider 1878: 9–10). For both of these important ancient grammarians, therefore, 'anaphora' meant resemblance of reference or referential identity treated as a function of pronouns.

Beside the usage of 'anaphora' just described within the field of grammar, the term was employed in a different sense within the separate tradition of classical rhetoric. Here it meant not referential identity, but rather repetition of a word, especially at the beginning of successive clauses. The earliest reference to 'anaphora' (this time the noun) in this sense is found in the treatise Περὶ Ἑρμηνείας 'On Style' of one Demetrius, dating from the first century, either B.C. or A.D.² Demetrius states that Sappho "sometimes makes graceful use . . . of anaphora" (Χαριεντίζεται δέ ποτε . . . ἐξ ἀναφορᾶς Roberts 1902: 138), citing the passage Ἐσπερε, πάντα φέρεις, φέρεις δὲ, φέρεις αἶγα, φέρεις ματέρι παῖδα 'O Hesperus, thou bringest all things (to rest). Thou bringest the sheep, thou bringest the goat (to the fold), thou bringest the child to the mother'. He then notes that "the charm of this passage lies in the [repetitious] statement of the [word] 'φέρεις', which repeats [i.e. refers repeatedly to] the same thing" (ἡ χάρις ἐστὶν ἐκ τῆς λέξεως τῆς 'φέρεις' ἐπὶ τὸ αὐτὸ ἀναπερομένης Roberts 1902: 138). At a later point in the same essay he ascribes a powerful effect to "what is called anaphora" (ἐκ τῆς ἀναφορᾶς καλουμένης), citing the lines of



Festschrift for Henry Hoenigswald

On the Occasion
of his Seventieth Birthday

Edited by
George Cardona
and
Norman H. Zide

gnV Gunter Narr Verlag Tübingen