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THE DEVELOPMENT OF PIE INITIAL IOTA IN GREEK – REEVALUATION OF EVIDENCE IN CONTEXT OF TYPOLOGICAL DATA (PART 1)¹

Keywords: Greek, laryngeal, phonology, glide, typology

Abstract

In the following paper selected Greek words with initial *zd-* or *h-*, which could have developed from Proto-Indo-European initial $H\bar{i}$ or $i\bar{-}$, are analyzed. In the first part the position of the Greek language within the Indo-European family, the Laryngeal Theory and the history of research on the development of initial glide (H) $i\bar{-}$ in Greek are commented on. In the main segment, divided between the two parts of the paper, the criteria of the selection of the Greek words are put forward and the selected thirteen words analyzed in the light of the development of their initial segments. In the second part, the conclusions made on the basis of the analysis are confronted with theories on scenarios of relative chronology of the sound changes. Finally, typological data is adduced to favour one of the possible scenarios of changes.

1. Status quaestionis

1.1. The position of the Greek language within the Indo-European family

The Greek language, in contrary to e.g. Sanskrit or Gothic, constitutes a subfamily within the Indo-European families by itself (a subphylum often called Hellenic) (Fortson 2004: 225–226). The phonological characteristics that distinguish Greek

¹ I would like to express my gratitude to dr Dariusz Piwowarczyk for suggesting this subject and helping me throughout the whole process of writing the paper. I would also like to thank Katarzyna Fuchs for proofreading the article. Needless to say, all of the mistakes are mine only.

in contrast to the other subfamilies are: threefold development of the laryngeal-induced schwa, loss of the most of the final consonants, devoicing of the PIE voiced aspirated stops and a complex development of the glide $*j$ -. On the basis of several morphological similarities, some scholars have claimed an existence of a subfamily consisting of Greek, Indo-Iranian, Armenian and Phrygian. Nevertheless, none of the versions of the theory has been widely accepted by the academic world. On the other hand, Greek represents a development of velar stops that is typical for centum languages. That is why, along with Italic, Germanic, Celtic, Anatolian and Tocharian languages, it is classified as a member of this very subgroup.²

1.2. The Laryngeal Theory

In the 19th century Swiss linguist Ferdinand de Saussure, observing various vowel changes and their alternations represented in cognate forms in IE languages, proposed a reconstruction of two “sonantic coefficients” – sounds not preserved in any of the IE languages, phonotactically positioning like resonants, which, in the process of disappearing, induced a series of changes on the neighbouring vowels, or were replaced by vowels themselves. The theory was further developed by Herman Möller and Albert Cuny. The number of sounds was raised to three; it was also claimed on the basis of typological evidence from Semitic languages, that they were laryngeal consonants, articulated in the back of the vocal apparatus. In the beginning of the 20th century, after the discovery of the Hittite language, Jerzy Kuryłowicz observed that the Hittite sound h appears in the very same spots, in which de Saussure reconstructed his “sonantic coefficient” for the proto-language.

According to the contemporary, most widely accepted version of the theory, one reconstructs three laryngeal consonants for the proto-language, most often transcribed as h_1 , h_2 , h_3 . Laryngeals were not preserved in any of the IE subfamilies with the exception of the Anatolian, where the second and third laryngeal were retained (although not in all of the positions). During the process of disappearing laryngeals triggered a series of changes in their surroundings. In the context of the analyzed material the following changes are relevant:

- in the position (-)VHC(-) a loss of a laryngeal caused a compensatory lengthening of the preceding vowel, in the case of e the quality of the vowel also changed: $*eh_1 > *ē$, $*eh_2 > *ā$, $*eh_3 > *ō$;
- in Greek, in the position HC-, an anaptyxis of a schwa between the initial laryngeal and the consonant occurred $*HC- > *HəC-$. After the loss of the laryngeal the schwa phonologized into a full vowel, its quality being determined by the type of laryngeal: $h_1 - e$, $h_2 - a$, $h_3 - o$ (Fortson 2004: 56–57, 74; Smoczyński 2006: 135, 138, 140, 147).

² Centum languages do not constitute a linguistic subfamily in the strict sense. The centum – satem division is established upon a basis of an innovation which is a further palatalization and asybilation of the PIE palatal velar stops. Following the methodological requirement of classifying languages on the basis of common innovations, not archaisms, only the satem languages can be labelled as a genuine linguistic subfamily.

1.3. The problem

The development of an initial PIE glide $*j-$ in Greek poses a problem for the established comparative method. Latin and Sanskrit initial consonants, respectively $i-/y-$ (palatal glide [j]: Whitney 1896: 19–20; Allen 1978: 39–40), in Greek correspond to either aspiration (voiceless glottal fricative [h]: Allen 1968: 51–53) or a voiced dental cluster,³ in the Greek alphabet written as $\langle\zeta\rangle$. The *Paradebeispiel* is the word for ‘yoke’ Gk. $\zetaυγόν$, Lat. *iugum*, Sk. *yugám* besides the nominative of a reflexive pronoun Gk. $\acute{\omicron}\zeta$, Sk. *yás* (Sihler 1995: 187). The effects achieved with the standard comparative method are questionable. Traditional conduct in the case of irregular correspondence sets involves either putting forward factors determining the irregular development or reconstruction of two different proto-sounds. At this point, if the effects would still not be satisfying, one can try to explain the irregularities by means of language contact (Campbell 1999: 108–137). In the attempts of explaining the development of $*j$ in Greek, every single of the aforementioned solutions was attempted.

1.4. A brief history of research

Reconstruction of two separate phonemes was carried out already by Karl Brugmann. He claimed that there existed a resonant-like $*j-$ and a spirant-like $*j-$,⁴ which allegedly were phonemically distinguished in the initial position (contrast in a word-internal position was “less certain”). Differentiation of this kind was to be preserved in Greek: $*j- > h-$ but $*j- > \zeta-$ (Brugmann 1886: 118, 453–454). Lack of evidence confirming the contrast of these hypothetical sounds in the other IE families would lead to a necessity of postulating a loss of it in every IE language beside Greek, which would not stand in accordance with the rule of economy in reconstruction (Campbell 1999: 119–120). Due to this, the theory was not accepted (cf. Sihler 1995: 187; Bednarczuk 2006: 4). Later, in his *Kurze vergleichende Grammatik der indogermanischen Sprachen* Brugmann put forward a proposition of treating $*j-$ as a *satzphonetische Variante* of the phoneme $*j-$ (Brugmann 1904: 92, 208). The theory is, however, non-verifiable, since it assumes a change that is dependent on the neighbouring words whilst it is impossible to reconstruct every possible position of the proto-form.

The solutions based on sociolinguistic and linguistic contact arguments were not widely agreed upon either. They were presented by J. L. García Ramón (1999:

³ In the Classical Period the letter $\langle\zeta\rangle$ most probably represented a cluster [zd], developed from a former affricate [dʒ] (Allen 1968: 53–54). The anonymous reviewer opposed the view that $\langle\zeta\rangle$ represented a cluster [zd] in any of the time periods, however I decided to support this statement. The arguments brought up by the anonymous reviewer were not convincing. The aim of the article is not to discuss the phonetic value of $\langle\zeta\rangle$ through the history of the Greek language and therefore I decide to follow the statement made by Allen, whose arguments seem logical and consistent.

⁴ Brugmann put $*j-$ in the part „Die Vokale als Konsonanten”, while $*j-$ in „Die Spiranten”. On the basis of this, one can assume that the first sound was imagined by him as it is nowadays, i.e., as a semi-vowel, a palatal glide [j]. The second sound, however, since it was grouped with /s/ and /z/, most probably could be interpreted as a voiced palatal fricative [j̥].

92–93) in an article discussing the development of the iota: the forms representing $*i-$ > $zd-$ were considered by M. Leroy to be borrowings from Thracian while J. L. Melena argued that the twofold development of the PIE iota was an effect of an interference between the languages of native Minoans and Mycenaean Greek. As it was noticed by García Ramón, these ways of explaining the problem assume that the $zd-$ forms are the irregular ones and require a commentary. The second shortcoming is their non-verifiability, which is unavoidable, if one accounts for the fact of non-existence of any Thracian texts from that period⁵ as well as strong data for the language of the native Minoans. Cl. Brixhe put forward a sociolinguistic explanation: $zd-$ forms allegedly came from the sociolect of rural population.⁶ This theory could have been confirmed by assigning the $zd-$ forms to the semantic areas connected with craftsmanship and agriculture (e.g. ζυγόν ‘yoke’, ζέω ‘to boil’, ζύμη ‘yeast’). García Ramón denied it, citing $zd-$ words which were not connected to these fields (e.g. ζωστήρ ‘warrior’s belt’, Ζητήρ ‘an epithet of Zeus’).

In the recent, laryngeal theory-based explanations, one stops to attempt to justify twofold development $*i-$ > Gk. $zd-$, $h-$. Nowadays, scholars are trying to face the problem by reconstructing an initial segment consisting of a laryngeal and a glide $*H_i-$ for one set of roots, and just the glide $*i-$ for the other. The opinions differ, however, which of the segments developed to $zd-$ and which to $h-$.

In his *Historische Grammatik des Griechischen* Helmut Rix⁷ (1992: 60, 70) put forward the following scenario:⁸

- A. $*H_i-$ > $zd-$
- B. $*i-$ > $h-$

In the two presented examples of the change $*H_i-$ > $zd-$, the presence of a laryngeal was supported by vowel lengthening in Sanskrit compounds and augmented forms.⁹ On the other hand, Rix (1992: 70) pointed out that for the forms ζέω ‘to boil’, ζύμη ‘yeast’, ζώννυμι ‘to girdle’ there were no independent evidence for an initial laryngeal, it was reconstructed in order to retain coherence of the theory. For these lexemes, it is therefore an *ad hoc* solution, serving only integrity of the argument.

In his article from 1976 Martin Peters investigated a Greek verb ἵημι ‘to throw’, whose present stem was at the time interpreted as reduplicated $*sisēmi$ or $*iīēmi$ (Peters 1976: 157). The reduplicated vowel /i/ was short both in Homer and the lyric poetry, but it was consequently scanned as long in the Attic comedy. Peters denied theories which attempted to explain the length as an innovation and proposed to

⁵ For the dating, see the summarizing part of the paper.

⁶ As it was pointed to me by the anonymous reviewer, Antoni Józef Śmieszek (1927) deserves a mention here, since he preceded Brixhe in putting forward a similar sociolinguistic explanation. Nevertheless, since I refer to García Ramón’s paper, I choose to present Brixhe’s explanation.

⁷ In this paper, laryngeals are transcribed with the modern graphemes, while Rix was still using the symbol ϱ .

⁸ Rix presented this theory already in the first edition (1976) of his grammar.

⁹ Gk. ζυγόν Sk. *yugám* (*áyunak*), Gk. ζειά Sk. *yávas* (*sūyávas*) (Rix 1992: 70).

interpret the shortness of the vowel as analogical to the other athematic present stems. Archaic, long Attic /i/ was explained by reconstruction of an initial laryngeal in the root $*H\bar{i}eh_1-$, by comparison of the Greek $\acute{\eta}\mu\iota$ with Latin *iaciō* (the /k/ there was extended to the present stem from the aorist stem, preserved also in Greek as $\acute{\eta}\kappa\alpha$) (Peters 1976: 158–160). Peters' paper presents therefore independent evidence for the development of $*H\bar{i}- > h-$ in Greek.

In an article from 1999 another version of the theory was further developed by García Ramón. The original version was first put forward by Jochem Schindler, in the form of an unpublished paper from 1987 conference. Schindler, contrary to Rix, proposed the following development (García Ramón 1999: 77):

- A. $*H\bar{i}- > h-$
- B. $*\bar{i}- > zd-$

The article focuses on two lexemes: $\zeta\eta\tau\acute{\eta}\rho$ – a gloss from Hesychius, read as Ζεύς ἐν Κύπρῳ and $yātár-$ – attested in Rigveda *hapax legomenon*, an epithet of Indra denoting an avenger (García Ramón 1999: 79, 81). García Ramón analyzed the words semantically and morphologically, along with their derivatives and cognate forms. Having proved that the epithets $\zeta\eta\tau\acute{\eta}\rho$ and $yātár-$ are both inherited, he considered them to be a PIE formation $*\bar{i}eh_2-tér-$ with an original meaning 'seeking punishment' (García Ramón 1999: 89). The absence of a laryngeal in *Anlaut* is evidenced by Sanskrit compounds and short-vowel reduplicated forms (García Ramón 1999: 88–89). The forms attest therefore a development $*\bar{i}- > zd-$, with the absence of a laryngeal proved by independent evidence. In the conclusive section of the paper García Ramón, still supportive to the Schindler's theory, marked that initial laryngeal is justifiable for none of the $zd-$ forms. Afterwards, he presented evidence for its presence in $h-$ forms, although, similarly to Rix, he also claimed its existence in case evidence was lacking (García Ramón 1999: 93–94).

Basing on that version of the theory Jeremy Rau and Chiara Bozzone referred to the relative chronology of the changes involved in the development of an initial iota and a iota with a laryngeal along with the position and status of these sounds in the developing system of the Greek consonants (Rau 2010: 176; Bozzone 2013: 2–8). Their view on the chronology of changes involving $*\bar{i}-$ in Greek will be commented on in the last section of the paper.

2. Analysis

2.1. The criteria of material selection

All the Greek forms with $h-$ or $zd-$, for which in the 2010 Beekes' dictionary $*\bar{i}-$ or $*H\bar{i}$ (h_1 , h_2 or h_3) are reconstructed, were selected as the material for the analysis. An entry meeting these criteria was omitted if it referred to another derivative of the same root (e.g. entries $\zeta\epsilon\ddot{\upsilon}\gamma\omicron\varsigma$, $\zeta\epsilon\upsilon\gamma\upsilon\upsilon\mu\iota$ analyzed alongside the form no. 13 – $\zeta\upsilon\gamma\acute{\omicron}\nu$). In some cases (e.g. form no. 1), instead of a specific word, a Greek lexical root is analyzed,

along with the forms relevant for the reconstruction. The entries are organized into two groups in accordance to the order of the Greek alphabet: first the forms with an initial aspiration, then, with an initial *zd-*. The forms of the *zd-* group are analyzed in the second part of the paper.

2.2. The material – forms with initial h-

2.2.1. ἄγ-

The Greek root is attested in at least three primary derivatives. Two of them – an adjective ἄγνος ‘pure, unspoilt, holy’ and a deponential verb ἄζομαι ‘to be in an awe, (later) to be afraid’ are attested since the Odyssey. The third of the derivatives – an adjective ἄγιος ‘holy, devoted to gods, cursed’ appears from Herodotus onwards. A noteworthy fact is the complete absence of the word in tragedy (LSJ: 9, 12, 29). It might suggest that the formation was not perceived by the Greeks as archaic, which implies its late derivation. Helmut Rix, in his dictionary of PIE verbal roots, reconstructs a root **H₂iaǵ-* ‘to revere’, he does not however justify thus proposed *Anlaut* (LIV: 224). In his etymological dictionary, in the entry ἄγνος, Robert Beekes continues the reconstruction of an initial cluster with a laryngeal and iota ἄγ- < **H₂ieh₂ǵ-*,¹⁰ he rejects nonetheless an /a/¹¹ vowel in the middle of the root (Beekes 2010: 11). Chiara Bozzone bases her reconstruction of an initial iota on the Sanskrit perfect stem *ij-* < **i-ij* < **Hi-Hih₂ǵ-*¹² derived from the related with Greek ἄγ- Sanskrit verb *yájati* ‘to honour with sacrifice’. Moreover, she brings up a related Luwian form *i-zi-ya* ‘to do, to make’.¹³ In the Anatolian languages *h₂* and *h₃* would have been preserved in an initial position before /i/ (Melchert 1994: 65–74), which suggests a reconstruction of the first laryngeal. In the end, the initial segment would be as follows: **h₂i-* (Bozzone 2013: 7).

2.2.2. ἦβη

Robert Beekes reconstructs the PIE root for the Greek noun ἦβη ‘youth’ as **(H)₂iēg^u-eh₂-*, he brings up Lith. *jėgà* ‘power, energy’ and Latv. *jėga* ‘power, sense’ as the comparative material (Beekes 2010: 508). In his book on metatony in Baltic languages

¹⁰ Beekes, according to the traditional notions of the “Leiden School”, reconstructs the *i* without the diacritic denoting its non-syllabic character. In a prevocal position the phoneme serves this very function, that is why in the following paper, for the sake of the consequence of notation, I adopt the orthography *i*.

¹¹ In its place he postulates a segment **-eh₂-*. This solution is strongly influenced by the glottal theory embraced by the “Leiden School”. The reconstruction of *Inlaut*, however, is not relevant in the context of the following inquiries.

¹² If the root would not contain an initial laryngeal, one should expect † *yej-* < **ia-ih₂ǵ-* (LIV: 225; Bozzone 2013: 7).

¹³ Elisabeth Rieken explains the semantic difference of the original, proto-language meaning ‘to do, to carry out’ and that of the inherited forms. In a context of cult the verb practically meant ‘to sacrifice’ and thereby to ‘to practice a cult’. Greek and the Indo-Iranian languages restricted the semantics to the religious context while Luwian preserved both the meanings (Rieken 2007: 273–274).

Rick Derksen points out to fact that the attested Aeolian form $\check{\alpha}\beta\alpha$ ¹⁴ ‘youth’ makes it difficult to connect the material (Derksen 1996: 136). Moreover, in his etymological dictionary he adds that the traditional PIE reconstruction, with a long \bar{e} in the *Inlaut*, does not explain the Lithuanian acute¹⁵ (Derksen 2015: 210). Beekes repeats Derksen’s remark about the Aeolian form, he notices, on the other hand, that some Aeolian and Doric forms with initial $\acute{\eta}$ - and ϵ - are attested as well. The Aeolian form, with a long initial \bar{a} , forcing the reconstruction $*(H)\bar{i}\bar{a}$ -, would exclude the Baltic forms from the equation, which could only develop from $*(H)\bar{i}\bar{e}$ -. Chantraine proposes nonetheless to treat it as hypercorrection (Chantraine 1968: 404).

To reject an etymological connection between $\acute{\eta}\beta\eta$ and $j\acute{e}g\grave{a}$ invokes some problems. The attested $\check{\alpha}\beta\alpha$ stand as an argument in favour of this, however on the other hand there is an almost perfect semantic and formal congruence between the Greek and Baltic words. Since the Aeolian form can be explained in terms of hypercorrection, one has to accept a genetic connection of these words. Unfortunately, premises for or against a presence of an initial laryngeal are lacking, the Baltic forms could develop both from $*H\bar{i}$ - and $*\bar{i}$ -, there is also no evidence in Greek compounds. The word $\acute{\eta}\beta\eta$ has to be therefore rejected as an argument in the discussion on the development of these initial segments in Greek.

2.2.3. $\acute{\eta}\pi\alpha\rho$

The Greek noun $\acute{\eta}\pi\alpha\rho$ ‘liver’ represents an archaic PIE formation with a heteroclitic suffix. Suffixes of this kind formally alternated within the paradigm. The best known is the $*-r/n-$ type (Fortson 2004: 111). In most of the IE languages one of the allomorphs of the suffix was extended to the whole paradigm. In Greek $\acute{\eta}\pi\alpha\rho$ one finds suffix $-r$ in the nominative singular stem, suffix of the oblique cases, on the other hand, continues PIE $-n-$, $-\alpha\tau-$ < $*-\eta\tau-$ (Rix 1992: 127).¹⁶ Cognate forms include i.a.: Ved. $y\acute{a}k\check{r}-t$ id., Lat. *iecur* id., Av. $y\acute{a}kar\acute{e}$ id., Lith. *jėknos* id. (NIL: 392; Beekes 2010: 522). Beekes reconstructs the proto-form as $*(H)\bar{i}ek^u-$, NIL $*\bar{i}e/o\bar{i}k^u-r/n-$, at the same time acknowledging in a footnote a possibility of an initial laryngeal. By the cause of an utter lack of evidence both in compounds and related forms, the Greek word $\acute{\eta}\pi\alpha\rho$ does not provide any independent arguments for the discussion on initial iota.

2.2.4. $\acute{\eta}\eta\mu$

The word $\acute{\eta}\eta\mu$ ‘to throw’ is related to Lat. *iaciō* id. and Hit. *pa-iēzzi* ‘to throw away’, *u-iēzzi* ‘to throw onwards’. The phoneme /k/, also seen in the Latin form, appears in

¹⁴ In the „ $\acute{\eta}\beta\eta$ ” entry LSJ (p. 762) acknowledges the form $\check{\alpha}\beta\alpha$ and refers to Alcæus 101 (Bergk’s numeration). David A. Campbell reads the passage as follows: Alc. 317 (Loeb’s numeration) „ἀλλά σάυτω † μετέχων ἄβας πρὸς πόσιν †” (Campbell 1982: 364). The *crucis philologorum*, suggesting an uncertain reading, point to the fact that the fragment was more prone to corrections. That makes the possibility of $\check{\alpha}\beta\alpha\varsigma$ being an hypereolism, just as Chantraine will suggest, more probable.

¹⁵ It can be noted that this notion is also typical for the “Leiden School”.

¹⁶ Original, almost unchanged alternation can be observed in Hit. *wātar* ‘water’ gen. *witenaš*, Lat. *femur* ‘femur’ gen. *feminis*, Hit. *ēšhar* ‘blood’ gen. *išhanaš* (Fortson 2004: 111).

the Greek aorist ἤκα as well. Latin extended this segment to all of the root's stems, Greek, on the other hand, left in the present stem the original reduplicated formation (Beekes 2010: 581; LIV: 225). The first scholar who proposed a reconstruction of an initial laryngeal was Martin Peters in 1976. Further developing a theory of an original reduplicated present stem,¹⁷ basing on the distribution of the verb in the texts, he proved an original long scansion of the initial /i/. The reconstruction was as follows: ἤμι 'to throw' < *H(i)i-Hīeh₁-mi id. (Peters 1976: 160). Rix, having ascribed ἤμι to the PIE root *Hīeh₁- 'to throw', continues the analysis of Peters with a reconstruction ἤμι < *Hi-Hīēh₁/Hih₁-. Beekes questions the initial laryngeal putting it in brackets *(H)īeh₁- (Beekes 2010: 581). He does not however justify his opinion. As the Peters' theory is still accepted, the word serves as independent evidence for the development *Hī > h- in Greek.

A Greek word, which is possibly related to ἤμι, is a noun ἔσμός 'swarm'. Pierre Chantraine proposed a derivation from ἔζομαι 'to sit' as well, this solution is not however mentioned by Hjalmar Frisk. Robert Beekes rejects it completely on semantic grounds¹⁸ (Frisk 1960: 574–575; Chantraine 1968: 378; Beekes 2010: 470). In all the dictionaries mentioned above, the word was analyzed as a derivative with a suffix -σμο-, none related forms were unfortunately provided. Had this derivative already been present in the proto-language, if one assumes a *-σμό- derivative from the root *Hīeh₁-, the formal development would have been as follows *Hih₁-σμό-¹⁹ > † gr. ἰσμό-. Lack of any mention of related forms outside Greek, lack of ἔσμός in the epic poetry²⁰ and the incompatibility of the word with the form expected in case of a PIE derivation inclines one towards a conclusion that ἔσμός was derived at a later time, already within the Greek language.²¹ The suffix itself was highly productive in Greek,²² which strengthens this theory. The short /e/ could be explained by assuming derivation from the weak stem ἔε-, this scenario nonetheless does not justify the lack of ι- in the noun's *Anlaut*. In the light of the evident secondary character of ἔσμός, this form should not constitute an argument in the discussion on the initial iota. Chiara Bozzone however uses it in such a role in her attempt to prove the presence of a first laryngeal in *Hīeh₁- (Bozzone 2013: 7).

¹⁷ A short vowel, appearing in the epic, lyrical and choral language, could be easily explained with metrical causes and/or analogy with athematic reduplicated present stems δίδωμι 'to give', τίθημι 'to lay' with a short vowel in the initial syllable. A long vowel consequently appeared in the spoken parts of comedies of Aristophanes, where metrical explanations can no longer be used.

¹⁸ "Derivation from ἔζομαι ... does not seem probable, as a swarm does not sit down" (Beekes 2010: 470).

¹⁹ A zero grade would be expected due to the accented suffix.

²⁰ The word is attested only since Herodotus (LSJ: 697).

²¹ I did not manage to find a single -σμό- derivative, for which there would exist a related form in the IE languages, it is therefore difficult to reconstruct any proto-form. Schwyzler marks Lith. *lañksmas* 'curve, turn', although it has been cited neither in the latest Baltic etymological dictionary (Derksen 2015) nor in the Greek one (Beekes 2010).

²² I.a. δασμός 'booty', σεισμός 'shock', σχισμός 'schism', κνισμός 'itch', πιεσμός 'pressure, restriction', θρωσμός 'jumping', κλισμός 'couch' (Schwyzler 1939: 493).

2.2.5. ὄς

The Greek relative pronoun, in the same function, is directly related to Sk. *yás*, Av. *yó*, Phryg. *ios*. The proto-form is reconstructed as $*h_1i-o-$ (Beekes 2010: 1117). It is nonetheless noteworthy that the sole reason for this reconstruction is to preserve the root structure *CeC*. The original function of the pronoun is deictic, which is still visible in Lat. *is* gen. *eius* (Weiss 2009: 339; Beekes 2010: 1117). The laryngeal is reconstructed on the grounds of the genitive stem *ei-* < h_1ei- (cf. Bozzone 2013: 6), if the Greek nominative of the pronoun would have been reconstructed as $*i\bar{o}-$, in Latin, the genitive, full-grade stem would develop as follows: $*i\bar{e}- > \dagger ie-$. The proponent of this theory accepts the *CeC* structure of the pronoun as an axiom, so the laryngeal is the reconstructed form only to preserve the consequence of the assumption. The relative pronoun ὄς serves as independent evidence for the development $*H_i > h-$, only if one assumes the aforementioned root structure.

2.2.6. ὑγιής

The Greek adjective ὑγιής ‘healthy’ is traditionally analyzed as a PIE compound of the prefix $*h_1su-$ ‘good’ and the root $*g^ueih_3-$ ‘to live’ (Weiss 1994: 149; Beekes 2010: 1525).²³ Weiss points out to the fact that this etymology explains neither the Greek *Anlaut*²⁴ nor the semantic development well.²⁵ He proposes a compound of $*h_2oi-u$ ‘eternity’ and $*g^ueih_3$ instead. This formation $*h_2iu-g^ueih_3-$ would then develop also in some other IE languages: Lat. *iūgis* ‘continuous, constant’, Av. *yauuaēji* ‘eternally living’, Goth. *ajukdjuþs* ‘eternity’. The Greek formal development $*h_2iu-g^ueih_3- > ὑγιής$ involves the rule of delabialization after *u* and a *-ής* extension. Both phenomena are well attested in the Greek language.²⁶ A development from ‘having a long life’ to ‘healthy’ is highly probable (Weiss 1994). The etymology proposed by Weiss clearly explains both formal and semantic aspect of the development of ὑγιής. This adjective therefore serves as an independent evidence for the development $*H_i- > h-$ in Greek.

2.2.7. ὑσμίνη

Beekes (2010: 1538), through a comparison of ὑσμίνη (an extension of original $*husmós$ ²⁷) ‘fight, battle’ and Sk. *yudh-má-* ‘warrior’, reconstructs the probable proto-

²³ As it was pointed out by the anonymous reviewer, Krzysztof Witczak proposed a different etymology (Witczak 1995). He claimed that the first part of the compound is a reflex of an IE adjective $*su-$ ‘full’. Because of the scarcity of data to back up Witczak’s hypothesis and a lack of contrarguments to the theory of Weiss, I chose to endorse the latter.

²⁴ “... PIE $*h_1su-$ regularly gives Greek *év-* ... Although the failure of the initial laryngeal to vocalise may be justified, one may wonder why alone ὑγιής escaped analogical restoration” (Weiss 1994: 149).

²⁵ Using excerpts from epic poetry, Weiss (1994: 149) showed that the syntagm *εὖ ζῶειν* ‘to live well’, functionally identical to $*h_1su-g^ueih_3-$ id., semantically refers to sumptuous life, not a life which is good in terms of health.

²⁶ The *Boukolos* rule: $*g^uouk^uolos > *g^uoukolos > βουκόλος$ ‘shepherd’; ὑπερφυής ‘growing upwards, gigantic’, διφυής ‘two-sided, double’: PIE compounds with $*-b^huH-$ > *-φῦ-* suffix with the *-ής* added later, on the Greek grounds.

²⁷ Beekes also cites ῥηγγμιν-, σταμιν- as other examples for *-in-* derivatives created from *-mó-* formations.

form as $*H_{i}ud^{h}-(s)mo-$, from the root $*H_{i}eud^{h}$ ‘to move’. He puts the unattested in the Sanskrit form *s* in brackets, while also proposing a different source for the sibilant in Greek. The etymological analysis of the word $\acute{\epsilon}\sigma\mu\acute{o}\varsigma$ ‘swarm’ could, among other things, show in case of a derivation from $*sed-$, to the form $*sed-m\acute{o}-$ (cf. $\acute{\epsilon}\sigma\mu\acute{o}\varsigma$), which would serve as a parallel for the development $*-dm- > -\sigma\mu-$ in Greek derivatives of this kind. In terms of the initial segment, Beekes does not justify his $*H_{i}-$ reconstruction in any way. Chiara Bozzone bases the reconstruction of the laryngeal on Indo-Iranian compounds: Sk. $y\bar{u}yudhur$ ‘hawkish’, 3 pl. perf. $y\bar{u}yudhir$ id., $amitr\bar{a}y\bar{u}dh-$ ‘fighting with enemies’, Av. $asp\bar{a}-iiaoda$ ‘fighting’, $fr\bar{a}-iiaoda$ ‘fighting in the front’. Bozzone reconstructs the *Anlaut* with the first laryngeal $*h_{1}i$, though it is not supported by any independent evidence (Bozzone 2013: 7). The secure, supported reconstruction, stays therefore as $*H_{i}-$.

2.2.8. $\acute{\omega}\rho\alpha$

Beekes (2010: 1682) derives Greek $\acute{\omega}\rho\alpha$ ‘period, season’ from a PIE form $*H_{i}oh_{1}-r-h_{2}-$ comparing it with Goth. *jer* ‘year’, OHG. *jār* ‘year’ (from an e-grade $*H_{i}eh_{1}-r-$), CS. *jara* ‘spring’, Av. $y\bar{a}r\bar{a}$ ‘year’. A Latin adjective *hōrnus* < $*h\bar{o}rinus$ ‘made this year, from this year’ is cited as related. However, as De Vaan writes in his etymological dictionary, deriving from the PIE form poses some trouble. Another way, cited after Szemerényi, is to assume a borrowing from an unattested Greek form $*\acute{\omega}\rho\iota\nu\acute{o}\varsigma$ or attested $\acute{\omega}\rho\iota\nu\acute{o}\varsigma$ ‘mature’ (De Vaan 2008: 290). In the light of the borrowing Gr. $\acute{\omega}\rho\alpha >$ Lat. *hōra* (Beekes 2010: 1682), Szemerényi’s theory seems convincing. Words related to $\acute{\omega}\rho\alpha$ would then be restricted to the aforementioned Germanic, Slavic and Indo-Iranian material, none of which provides any kind of evidence for or against a presence of a laryngeal in the *Anlaut*. Beekes connects the proto-form with the root $*H_{i}eh_{1}-$ ²⁸ ‘to send’ citing a semantic parallel Ger. *Geschick* ‘fate’ from *schicken* ‘to send’. It nonetheless seems too little to postulate a certain etymological connection between the Greek word and the root. Secure comparative material allows at best to reconstruct $*(H)_{i}oh_{1}-r-h_{2}-$. Greek $\acute{\omega}\rho\alpha$ does not provide us then with any independent evidence in the discussion on the development of iota in Greek.

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²⁸ Supposedly, on that basis he reconstructed the *Inlaut* $*H_{i}oh_{1}-r-h_{2}-$ with the first laryngeal.

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