

FILIP DE DECKER
Universiteit Gent
filipdedecker9@gmail.com

AN ETYMOLOGICAL CASE STUDY ON THE <PG> AND <PG?> VOCABULARY IN ROBERT BEEKES'S NEW ETYMOLOGICAL DICTIONARY OF GREEK: M

Keywords: substrate, inherited lexicon, sound laws, Indo-European, Greek, etymological dictionaries

Abstract

This article presents an etymological case study on Pre-Greek (PG): it analyzes about 20 words starting with the letter M that have been catalogued as <PG> or <PG?> in the new *Etymological dictionary of Greek* (EDG), but for which alternative explanations are equally possible or more likely (discussing all instances would be tantamount to rewriting the dictionary). The article briefly discusses the EDG (for an in-depth appraisal the reader is referred to part one of the article) and then analyzes the individual words. This analysis is performed by giving an overview of the most important earlier suggestions and contrasting it with the arguments used to catalogue the word as PG. In the process, several issues of Indo-European phonology (such as the phoneme inventory and sound laws) will be discussed.

1. Observations on the Leiden etymological dictionaries and the EDG.

In part one of this article (in which we discussed the pre-Greek lemmata of the letter N in the EDG), we pointed out that it cannot be denied that Greek borrowed words from many non-Indo-European languages (there is a consensus that more than half of the words in the Greek lexicon are of non-Indo-European origin). It is therefore logic that the EDG often argues for non-IE origin of words, but the problems with the EDG are the following: first, it assumes that Greek borrowed most of its words

from one and the same language, without taking into account the time depth problem (i.e. when was the word attested in, in which author can the word(s) be found) and the unlikelihood of all words coming from one language, given the multitude of languages that were spoken in Antiquity (according to the Ancient sources); second, when a borrowing and an inherited etymology are equally possible, the EDG assumed the word was borrowed without explicitly stating why, but we think that it might be better to prefer an inherited etymology when the evidence allows it; third, it uses the concept “Pre-Greek” to explain away words that have a possible Indo-European etymology that includes elements that are in contradiction with the Leiden school [see Verhasselt (2009a, 2009b, 2011); Meissner (2014); De Decker (2015)].

2. Individual etymologies¹

1. *mákar* ‘happy, blessed’ (Beekes 2010: 893). Older etymological dictionaries linked the word with *makrós* ‘long’ and assumed a semantic evolution from ‘long, great’ into ‘happy’ [Curtius (1879: 161); Prellwitz (1905: 278–279)]. This evolution cannot be ruled out, but is not evident (Boisacq 1938: 601–602), especially since the root *mak* means ‘meagre, long’ and from ‘meagre’ to ‘happy’ is difficult. Brugmann argued that *mákar* was an original neuter noun ‘blessedness’, which was then reinterpreted as adjective and received masculine and feminine forms [Brugmann (1905: 434), supported by Benveniste (1935: 18); Boisacq (1938: 601–602); Schwyzer (1939: 519); Chantraine (1968: 659)]. Frisk (1970: 162–163) stated that this explanation was formally sound, but not supported by the texts. Beekes only stated that the texts did not confirm Brugmann’s hypothesis and argued that the isolated formation and the variation between long and short *a* in the second syllable pointed at Pre-Greek origin. This argumentation is not convincing. First, as Frisk stated (and Beekes left out), the distinction between long and short *a* is formally expected: if we start from a stem in a short *a*, the case forms outside the masculine singular have a short vowel *a* whereas the masculine singular has a long *a* because of Szemerényi’s Law:² **makars* with a nominative singular ending *s* would regularly become *mákar*. The case forms attested in Homer follow this schema. Second, there might be another example of a neuter noun in *ar* that was reinterpreted as an adjective or noun: Pedersen (1893: 244), explained the noun *dámar* ‘wife’ as an original neutre *r/n* noun which was reinterpreted as a feminine, but there are no examples in our texts of a neuter noun *dámar*. If one accepts the analysis for *mártus* ‘witness’ (cf. *infra*), this would be another example of an originally neuter noun that

¹ We decided to transcribe the Greek. In doing so, we used the accents ´ (acutus), ` (gravis) and ^ (circumflexus). We use the sign : to indicate vowel length. Vowel length is not indicated when a vowel is written with a ^, because vowels with a circumflex are always long. A sign H refers to any laryngeal, a C to any consonant, a P to any plosive, an R to any resonant and a V to any vowel.

² This law states that at word end a sequence VRs (with V being any vowel and R being any resonant) became V:R (see Szemerényi 1996: 116; Weiss 2009: 47; Kümmel forthcoming). This was already noted in the 19th century, as Szemerényi stated himself.

became masculine in Greek. Third, it is true that there are no cognates in the other Indo-European languages, but that does not mean that the word was borrowed from “Pre-Greek”. In any case, there are other neuter nouns ending in *ar*, such as *néktar* ‘drink of the gods’ (although this word was debated as well, cf. part one). Brugmann’s explanation has the advantage that it explains the adjective and its inflection as an inner-Greek development, but the problem is that the original noun is not attested (anymore). This should not be a problem in itself, because the adjective *askēthés* ‘unharméd’ is derived from a noun **skēthos* ‘harm’ which is also unattested (albeit it is attested in other Indo-European languages).

2. *makednós* ‘tall, slim’ (Beekes 2010: 894); *Makedón* (nominative), *Makedónos* (genitive) ‘Macedonian’. As this word means ‘tall’, a connection with *makrós* seems logical [Prellwitz (1905: 279); Frisk (1970: 163)]. Fick (1901a: 242) interpreted the name as ‘people living on the high planes’. Building on Fick’s explanation, Frisk explained the adjective *makednós* as having the zero grade *dn* while the personal name has the full grade *don-*. Already Krahe (1928: 159) doubted the Greek origin of *makedón* and Chantraine (1968: 660) and Beekes (2010: 894) followed him in this. Chantraine suspected that Krahe might have been right in doubting the Greek origin of the word *Makedón*. Beekes admitted that the meaning might point at a link with *makrós* but argued for PG on two grounds: firstly, because an analysis of *make-dn-os* would have been impossible for Indo-European and secondly, because there was a variant *Makétes* ‘Macedonian’. The existence of a form with a *d* as in *Makedón* and with a *t* in *Makétes* was in Beekes’s opinion indicative for PG origin, as a variation *t/d* was a feature of PG. The probative value of the form in *-étes* is in our opinion limited, as we might be dealing with a suffix *étes* in *mak-étes* as in *oik-étes* ‘living in one’s house, house slave’ (this example was even adduced by Beekes himself). We are also unsure why an ablaut pattern *don/dn* would be impossible. The use of the full grade in the noun declension and the zero grade in the adjectival derivation is paralleled in the word for ‘father’, where we have the nominative *patér* and the genitive *patéros* besides *patrós* and an adjective *pátrios* ‘fatherly’.

3. *malthakós* ‘weak, tender, soft, mild’ (Beekes 2010: 897–898).

4. *málthe*: ‘mix of wax and pitch’ (Beekes 2010: 898). Hesykhios has a gloss *málthe: trupheré: málthe:* means ‘delicate’.

The adjective *malthakós* is traditionally linked with the Germanic words for ‘mild’ (*mild* in English, German and Dutch; *mildeis* in Gothic and *mildr* in Old Norse) and with Sanskrit *mardhati* ‘to neglect’, and can be reconstructed as **meld^h* [Kluge et al. (1957: 479); Chantraine (1968: 662); Van Veen, Van der Sijs (1997: 563); Zehnder (2001b); DWDS s. u. *mild*; Mayrhofer (1996: 328–329) was more skeptical]. As *malthakós* and *malakós* ‘soft’ show similar suffixes and have the same meaning, it is likely that they influenced each other [Chantraine (1968: 662); Frisk (1970: 167)]. Solmsen (1909: 55–56; quoted in Frisk 1970: 167) and Chantraine (1968: 662) argued that the feminine noun *málthe:* was in origin a feminine adjective form from **malthós* and reconstructed *malthakós* as **mlthḡkos*. Beekes argued that *malakós* ‘soft’ and *malthakós*

did not influence one another, but did not state why he thought so. He assumed that *malthakós* was PG, because it could not be derived from a zero grade of **meld^h* as this would have given ***blathakós*. In addition, there was no Indo-European suffix **ηko* (as suggested by Solmsen), and as Beekes (2010: 898), who discussed *the well-known PG suffix ako* and assumed that most words in *ako* were of substrate origin, and posited that *malthakós* was of PG origin as well. He denied the link between *málthe*: and *malthakós*, but doubted the meaning ‘delicate’ that was given by Hesykhios and considered *málthe*: to be PG, because of its technical meaning. We, on the other hand, see no reason to doubt the link between *málthe*: and *malthakós*. As wax is soft and mild, this poses no serious semantic problems. It is true that the lexicon by Hesykhios is not always trustworthy, but in order to decide when it can(not) be trusted, an in-depth analysis is needed and one cannot just doubt words because they do not fit in into a certain theory. One could explain *malthakós* as a derivation from *málthe*: influenced by *malakós*. As the *-akos* in *malakós* was inherited, Greek had words ending in *akos* that were not PG and consequently, not every word with this suffix can be catalogued as PG. As the meanings of both words were very close, mutual influence between them cannot be denied.

5. *mállós* ‘flock of wool’ (Beekes 2010: 899). Fick and Prellwitz connected this word with Lithuanian *milas* ‘coarse homespun wool’, reconstructed **mal-yos* and linked it with *malakós* [Fick (1872: 176); Prellwitz (1899: 285); Pokorný (1959: 721)]. Semantically, this is not convincing.³ Greppin rejected the link made by Fick, compared the Greek word to Armenian *mal* ‘wether, castrated ram’ and reconstructed **malyos* (as Fick had done). He argued that the basic meaning was not ‘castrated sheep’, but that it received that meaning through the resemblance with the verb *malem* ‘to crush, castrate’ (Greppin 1981: 72). Greppin’s explanation was doubted by Hamp (1982) and Clackson (1994: 232) because of the semantics.⁴ Clackson explained the Armenian word as a borrowing from Arabic *māl* ‘possession’ with a semantic evolution from ‘possession’ into ‘sheep’ in Armenian. The semantics of Greppin’s explanation are not problematic,⁵ and certainly less problematic than Clackson’s suggestion (also because it offers an etymology that does not involve a borrowing). If the initial meaning was ‘sheep’, it is possible that Greek narrowed the meaning into ‘wool’. Beekes argued for PG because a reconstruction **mh₂l* would be improbable and because the cluster *ll* could have been a geminate from PG. If Greppin is right in his equation (and we see no reason to doubt it), this would be an Helleno-Armenian isogloss.⁶ As such, a reconstruction (Proto-)Helleno-Armenian **malyos* would be possible and there is thus no need for a PG etymology. Assuming an Helleno-Armenian etymon would

³ As was already noted by Boisacq (1938: 606), Greppin (1981: 70). Frisk (1970: 168) was less critical, while Chantraine (1968: 663) only stated that the etymology was unknown.

⁴ This word was not discussed in Martirosyan (2008).

⁵ As Beekes (2010: 899) pointed out as well.

⁶ For evidence in favour of a close relationship between Greek and Armenian, see Solta (1960) and evidence against it can be found in Clackson (1994), but we leave out a detailed discussion on the issue of the relationships of Greek and the other Indo-European languages.

also solve the *a* problem, because at that stage the Helleno-Armenian proto-language could have had an *a* phoneme already (even if one started from the assumption that PIE did not have it).

6. *mártu:s* ‘witness’ (Beekes 2010: 908–909).

7. *mérinna* ‘care, concern’ (Beekes 2010: 932).

Since Fick, *mártu:s* has been linked with Sanskrit *smárati* ‘remember’ from the root **smer* ‘remember’ (Fick 1890: 338; Boisacq 1938: 612; Hofmann 1950: 191; Frisk 1970: 170).⁷ Frisk (1970: 170) suggested the following evolution for *mártu:s*: first, the root was put in the zero grade and extended by an abstract suffix *tu* and would have meant ‘remembrance, testimony’. In a second stage, an adjectival *ro* was added and in a third stage, *martus* and *márturos* became crossed, leading to a new nominative **márturs* which became **mártu:r* and eventually dissimilated into *mártu:s* (which explains the apparent exception to Szemerényi’s Law) (Schwyzer 1939: 260, with a list of similar dissimilations; Frisk 1970: 170; a list of dissimilations can be found in Grammont 1948).⁸ In this scenario, *mártu:s* would originally have meant ‘testimony, remembrance’ and only later ‘he who remembered, witness’. A similar evolution from an abstract noun into a concrete one or adjective can be seen in *máka:r* (cf. supra). Chantraine (1968: 669) rejected this hypothesis, because an action noun *martu-* remained hypothetical. Beekes assumed a PG origin, because a form **smrtu* in the zero grade⁹ should have given ***bratu* and because the suffixes *tu* and *r* were of non-Indo-European origin. We doubt this, because the evolution form *mr* into *bra* is only certain for word initial position, but in **smrtu* the cluster *mr* stands in word internal position. We also disagree with the assessment that the suffixes *tu* and *r* were of non-Indo-European origin. The root **smer* can also be seen in *mérinna* (Chantraine 1968: 687; Mayrhofer 1996: 781). Beekes doubted the Indo-European heritage of this word, because he and Furnée (1972: 246) considered the suffix *mna* to be PG. We believe that there are neither semantic nor formal reasons excluding an Indo-European etymology for both words.

8. *máthuia* ‘jaw’.

9. *masáomai* ‘I chew’ (Beekes 2010: 909).

10. *mástaks* ‘mouth’ (Beekes 2010: 911).

11. *mástiks*, genitive *mástigos* ‘whip’ (Beekes 2010: 911–912).

12. *móthos* ‘battle din’ (Beekes 2010: 961).

13. *Moúsa* ‘Muse’ (Beekes 2010: 972–973).

We believe that the first three words are related and that the last three are related as well. We discuss them together, because their etymologies pose the same problems,

⁷ Prellwitz (1905: 282–283) mentioned both *mar* and *smer* as possible etymologies. Surprisingly enough, Greek *mártu:s* was not mentioned in Mayrhofer (1996: 781, contrary to *mérinna*).

⁸ They did not address the absence of Szemerényi’s Law.

⁹ Beekes did not distinguish between vocalic and consonantic resonants. There is a case to make for such an approach, especially since different languages seem to follow different vocalization rules, but after some hesitations, we decided to make the distinction after all.

namely the issue of the aspirates and the treatment of a laryngeal preceded by a consonant and followed by a yod.

The words *máthuia*, *masáomai* and *mástaks* are related to Latin *mandere* ‘chew’ and can be linked to either Sanskrit *MATH* ‘rob, take quickly’¹⁰ or *MANTH* ‘move heavily, move quickly’ (Hofmann 1950: 191; Walde, Hofmann 1954: 26; Zehnder 2001d: 442; Meiser 2005).¹¹ The former continues PIE **mat^h*, while the latter continues **me/ont^h*.¹² The Greek words could continue a zero grade from the root **me/ont^h* or the full grade from **mat^h*, but Latin *mandere* cannot be reconstructed from the zero grade of a root with **elo*. *Mástiks* and *móthos* can be linked to Sanskrit *mánthati* ‘agitate’, OCS *męntetǔ* ‘causes confusion’ and ON *mǫndull* ‘Drehholz’.¹³ In case of *mástiks*, the word is built on the zero-grade (with Greek *a* being the reflex of a sonantic *n*) and the meaning would be that a whip is a tool to drive and agitate animals. The word *móthos* is a bit more problematic: it is either a formation on the zero grade with Aeolic treatment of the vocalic *n* (which would then be an Aeolism of the epic language, *móthos* first being attested in Homer) (Kuiper 1934: 104), or it is built on a nasalless form of the root **me/ont^h* which is attested in Indic as well.¹⁴ We believe that *Moúsa* can be linked as well, but will discuss the word at the end. Because he ruled out that PIE **tH* became *th* in Greek and because he did not accept voiceless aspirates for PIE, Beekes (2010: 909) rejected the connection between the Greek words and the other cognates, and considered the Greek words to be PG. He assumed that the suffix *ig* in *mástiks* was an additional indication for PG origin. Frisk and Chantraine also rejected the etymologies, because they thought that the Indo-European **t^h* was rendered by *t* in Greek (Chantraine 1968: 669, 708; Frisk 1970: 248–249; see especially Frisk 1936). We agree with Beekes that laryngeals did not aspirate in Greek (Beekes 1969: 179–181, 2010: 909; Elbourne 2000),¹⁵ but – contrary to Beekes – believe that PIE did in fact have a fourth category of plosives, namely the voiceless aspirates (Rasmussen 1987, 1989; Elbourne 1998, 2000, 2001, 2011, 2012; De Decker 2011, forthcoming a, forthcoming b). Their existence is no longer

¹⁰ The Indic roots are quoted in capital letters, because that is the way they are printed in Mayrhofer’s etymological dictionary.

¹¹ For the difference between Sanskrit *MATH* and *MANTH* see Narten (1960); Hackstein (1995: 29–30), discussing the Tocharian evidence; Mayrhofer (1996: 311–312) who pointed out that both roots were confused only in later texts and not in the RigVeda; Zehnder (2001c, 2001d). Fick (1890: 283) only mentioned the root “quirlen” and not “kauen”.

¹² We explain later on why we reconstruct the forms with **t^h* and not **th₂*.

¹³ For the listing of the cognates, see Fick (1890: 283, ‘without the Greek words’); Prellwitz (1905: 297), Boisacq (1938: 642–643), Pokorny (1959: 732–733); Mayrhofer (1996: 311–312). Latin *mamphur* ‘Stück aus einer Drehbank’ (only attested in Paulus ex Festo) and *mentula* ‘dick, penis’ have been linked as well, but they pose some problems and we will leave them out of the discussion.

¹⁴ According to Whitney (1885: 117), the Atharva Veda has a form *máthati* ‘he agitates’, but it is possible that this nasalless form is the result of inner-Indic evolutions (see above).

¹⁵ We discussed all the examples in De Decker (2011 and forthcoming a), and showed that none of the examples in favour quoted in Peters (1993a, 1993b); Meiser (2005) and Nikolaev (2010: 66–67) was absolutely convincing. Beekes (2010: 909) also stated that there is not enough evidence to assume aspiratory force of laryngeals in Greek.

generally accepted, after de Saussure had shown that certain Indic voiceless aspirates could be explained by the combination of a plain plosive and a laryngeal.¹⁶ Nevertheless, for a (relatively small) number of words their presence is needed.¹⁷ We also believe that the Greek evidence excludes a laryngeal. Latin *mandere* and Sanskrit *MATHⁱ* could theoretically continue both PIE **math₂* as **mat^h*, while Sanskrit *MANTHⁱ*, the Germanic and Slavic cognates could continue both PIE **me/onth₂* as **mo/ent^h*,¹⁸ but this is not the case for the Greek words. If we start from the forms with a laryngeal, we can theoretically explain the aspiration in *máthuia* and *móthos*,¹⁹ but we cannot arrive at *mástaks*, *mástiks*, *masáomai* or *Moûsa*. If one starts from **math₂*, the forms *mástaks*, *mástiks* and *masáomai* cannot be explained, because the *transponat* **math₂taks* would have given Greek ***mátaks* and **math₂tiks* would have yielded ***matatiks*. The form *masáomai* is also difficult to explain starting from a root **math₂-y-* because that would have given **matai-*. The same applies to *Moûsa*: in laryngealistic terms, this would be **month₂-yh₂*, but that would have given ***mon-taya*. There is a (supposed) sound law that states that a laryngeal disappeared between a consonant and a yod in word internal position (the so-called Lex Pinault or Pinault's Law).²⁰ If this rule were correct, *masáomai* and *Moûsa* would be regular outcomes from **math₂-ye/o* and **month₂-yh₂* respectively, but there are some doubts about the validity of this sound law for Greek (Lindeman 2004: 126–129; Piwowarczyk 2008, forthcoming; Verhasselt forthcoming, §3 treats the Greek material). First of all, there are counterexamples such as *aróo*: 'I plough' from **h₂erh₃-ye/o* and (*w*)*eméo* 'I vomit' from **wemh₁-ye/o*, forms which Pinault explained as *thematistische*

¹⁶ In 1892, De Saussure, quoted in Bally, Gautier (1922: 603), argued in a short article in *BSL* that *certain cas* of the Indic voiceless aspirates went back to a combination of a plain voiceless plosive and what we would now call a laryngeal. In his *Mémoire sur le système primitive des voyelles* (dating from 1879) he had already suggested that the *th* in e.g. *grathnati* and *granthitas* was possibly the reflex of the *i* elsewhere in the verbal flexion (Bally, Gautier 1922: 228). See Mayrhofer (1981a) for a detailed analysis of de Saussure's reconstructions.

It is important to note that de Saussure never said that all cases of Sanskrit *th* could be explained this way. The summary in *BSL* mentions *certain cas*, but since we only have a summary of what he actually said, we will never know how he actually envisaged the Indo-European consonant system. De Saussure's explanation was expanded by Pedersen (1893: 269–273, 1926: 48, 63–64); Kuryłowicz (1927: 202–204, 1928: 55–56, 1935: 46–52). Cuny (1912) showed that laryngeals could also aspirate voiced plosives in Indo-Iranian. For a detailed treatment of the laryngeal effects in Indo-Iranian, see Mayrhofer (1981b, 2005).

¹⁷ Of the grammars on Indo-European, only Szemerényi (1996) accepted the existence of voiceless aspirates; Fortson (2004) considered them to be secondary and Clackson (2007) and Meier-Brügger (2010) stated that there were too few instances to reconstruct a separate category. For a reconstruction of phonemic voiceless aspirates, see Elbourne (1998, 2000, 2001, 2011, 2012) and Rasmussen (1987, 1989).

¹⁸ For the laryngealistic reconstructions, see Mayrhofer (1996: 298–299, 311–312), Zehnder (2001c, 2001d). The form **math₂* was suggested to include the Greek personal name *Promatheús* but the long *a* in that name might be a case of secondary ablaut *a/ā* with the Greek *math* from *mantháno*: 'I learn'.

¹⁹ Pedersen (1926: 52–54) already alluded to the fact that the Greek aspirate might be due to a laryngeal.

²⁰ This had first been noticed by Wackernagel (1896: 81) for Indic. For PIE, see Pinault (1982), Ringe (2006: 15), Byrd (2015: 208–240) (admitting that there are still unexplained counterexamples).

Umbildungen of originally athematic verbs based on the aorist forms *é:rosa* ‘I ploughed’ and *é:mesa* ‘I vomited’. This would presuppose that all instances were analogically levelled out, which cannot be proved nor disproved. Secondly, while there are several good examples that seem to confirm this sound law for Greek, they can be explained differently (Piwowarczyk forthcoming). The first example is the noun *aosse:tér* ‘helper’ from **sm̄-sok^wh₂y-* (literally ‘together-follower’) (Pinault 1982: 271–272).²¹ This word is related to Latin *socius* ‘ally’ and Sanskrit *sákhā-* and Avestan *haxā* ‘friend’. The indications for the laryngeal come from Indo-Iranian, namely the aspirate²² and the absence of Brugmann’s Law.²³ If the reconstruction as **sok^wh₂-i-* is correct, this would be an important example for the Law. Piwowarczyk, referring to Harðarsson, explained this as a secondary thematicization or a backformation on the aorist (Piwowarczyk forthcoming, referring to Harðarsson 1998: 328). In addition, it is possible that the laryngeal suffix **h₂-o* was only added in Indo-Iranian. In Latin and Greek, sequence **(sm̄)sok^wy-* without laryngeal would have given *áooss-* and *socius* as well and if *aosse:tér* is related to Greek *hépomai* ‘I follow’ (from **sek^w-o-mai*), the question remains why *hépomai* has no laryngeal while would have had a laryngeal. The form *aosse:tér* can be explained as a thematicization of **sok^w-y* as is the case for Latin *socius*.²⁴ A second example is the comparative *meídzo:n* ‘bigger’ from *mégas* (**meǵh₂s*). The expected comparative form would be **meǵh₂-yos-* and this would normally have given ***megaío:n*. The loss of laryngeal is not necessarily a result of the rule. As the positive was *mégas* and the superlative *mégistos* ‘biggest’, it is possible that the stem *meg* was reintroduced to have a comparative and superlative **megyo:n* – *mégistos* besides **kretyo:n* – *krátistos* ‘better, best’ and **elakh-yo:n* – *elákhistos* ‘fewer, fewest’.²⁵ A third example is the verb *teíro*: ‘I annoy’ (Pinault 1982: 270). This is generally reconstructed as **terh₁-yoh₂* and would confirm the rule, but Greek *térnon* ‘thorn’ shows that the root also existed without a laryngeal and the connection with English *thorn* indicates that the laryngealless form might have already existed in PIE.²⁶ A fourth example is the verb *éiro*: ‘I speak, declare’ from **werh₁-ie/o* (Pinault 1982: 270). This present is rare and might well be a later creation based on the future *eréo*: ‘I will say’ (Chantraine 1948: 267, 1968: 325–326; Frisk 1960: 470; Kümmel 2001: 689–690; Piwowarczyk forthcoming). As such, we believe

²¹ This was already noted by Peters (1980: 80–81).

²² As we stated above, an Indo-Iranian voiceless aspirate can – in most cases – be explained as the result of a plain plosive and a laryngeal.

²³ This law states that an Indo-European **o* becomes *ā* in Indo-Iranian in an open syllable. That this lengthening did not happen in this word, means that the verb did not end in **k^w* followed by a vowel but in **k^w* and a laryngeal (as the laryngeal counts as a consonant). There are nevertheless several examples to this sound law and there are several publications on the problem, but we cannot address the issue here. It was first stated in Brugmann (1876: 380, note 9). The most in-depth analysis is Volkart (1994) (but the literature on the topic is enormous and the issue cannot be addressed here).

²⁴ As is argued by Verhasselt (forthcoming, example 32 in his article).

²⁵ Piwowarczyk (forthcoming) also assumed that the stem *meg* was used to form the comparative and superlative.

²⁶ See Verhasselt (forthcoming) under his example 30.

that Pinault's Law is not an Indo-European sound law,²⁷ and consequently, a reconstruction with a laryngeal cannot account for Greek forms *masáomai* (and *Moûsa*). As the forms cannot be reconstructed with a laryngeal, the Greek aspirates need to be accounted for in a different way. We believe that a reconstruction **me/ot^h* and *me/ont^h* (with an Indo-European voiceless aspirate) can solve the problem. If we accept that laryngeals had aspiratory force in Indo-Iranian but not in Greek, and that Greek and Indo-Iranian also preserved the inherited voiceless aspirates, the difference in consonantism between Greek *platús* 'flat' and Indic *pr^hthus* 'flat' from **p^hl₂us* is explained, as is the difference in consonantism between Greek *máthuia* and *platús*. If one accepts the aspiratory force of laryngeals in Greek, *platús* is a difficult counterexample. If one does not accept aspiratory force and denies the existence of voiceless aspirates, the forms *móthos* and *máthuia* are not easily explained.²⁸ The form *oístha* 'you know' seems to be a strong example for aspiratory force of laryngeals in Greek, if one accepts the reconstruction **th₂e* for the 2nd person singular ending (but there is nothing that argues against an ending **t^ha*). It is possible, however, that the imperative *ísthi* 'know' spread its aspiration to *oístha* (Frisk 1936: 41–43; Ruijgh 1978: 302). A similar example for such an 'aspiration extension' can be found in the 3rd person singular imperative *áno:k^htho*: 'let him order' and the 2nd plural *áno:k^hthe* 'you (pl.) order!' which have their cluster *kh^h* from the 2nd singular imperative *áno:k^hthi* 'order!' from the verb *áno:ga* 'I order'.

The last form that needs to be explained is *Moûsa*. Several suggestions have been made for this word. Brugmann interpreted the word as a compound of a root **men* 'think' and a suffix **tya*: the Muse would then be 'the thinking one, the inspiring one' (Brugmann 1894: 253–256, building on a suggestion by Theodor Benfey). Wackernagel (1895) argued that the suffix *tya* was not attested and suggested to link the word *moûsa* with Latin *mons* 'mountain', namely *mont-ya*: the Muse would then be 'goddess of the mountains'. The last suggestion was that by Ehrlich (1907), who argued that the Muse was the goddess that agitated and inspired knowledge and reconstructed **mont^hya*. Wackernagel's ingenious suggestion has the problem that the root *mont* is not attested in Greek (Chantraine 1968: 716). We therefore prefer to link *Moûsa* to **month* rather than to **mont*. *Moûsa* would then be another word linked to the root **me/ont^h* (a laryngealistic reconstruction **month₂y_h₂* for *Moûsa* is problematic, because Pinault's Rule did not apply in Greek). Beekes (2010: 972–973) argued that the word could be reconstructed as **monthya* and be linked with *mantháno*: 'I learn' or was PG because it did not have to be of Indo-European origin. We believe that there is no need to doubt the inherited nature of *Moûsa*

²⁷ Lindeman (2004: 126–129) and Piwowarczyk (2008: 37, forthcoming) pointed out that the rule only applied in younger languages and in Indo-Iranian, a language where the anaptyctic vowel between laryngeal and consonant was an *i*. They wondered if this could not have triggered the deletion. See most recently Verhasselt (forthcoming).

²⁸ Zubaty (1892) and Elbourne (2012) argued that PIE **t^h* lost its aspiration when it was preceded by a resonant or *s*. Paul Elbourne (2012) informed us that he therefore denied the link between *móthos* and *mánthati* but this is not necessary. If there was already a nasalless form in PIE, *móthos* might have come from that form. This would not contradict his sound law (but we think that the examples of this sound law can be explained differently).

(or any of the other words) and accepting voiceless aspirates allows us to link these words with other Indo-European cognates and there is no need to assume that the Greek words were PG.

14. *mágeiros* ‘cook’.

15. *mákhaira* ‘large knife’, later also ‘dagger’ (Beekes 2010: 915).

16. *mákhomai* ‘I fight’ (Beekes 2010: 916).

It is not certain whether these three words are related, but we discuss them together as some dictionaries have linked them.

Three suggestions have been made for *mákhaira*. The first stated that it was a derivation from *mákhomai* ‘fight’, the second considered it a borrowing from Semitic and the third linked it with *mágeiros* (Chantraine 1968: 673; Frisk 1970: 187, without further observations; Beekes 2010: 915). Beekes accepted the connection between *mágeiros* and *mákhaira*, and interpreted *mákhaira* as PG, because it had a voiceless aspirate and *mágeiros* a voiced stop. In addition, the suffix *eiros* in *mágeiros* pointed at PG as well. *Mákhaira* has been interpreted as a Semitic loanword from *m^ekērā* ‘sword’,²⁹ but against a Semitic borrowing speaks the fact that the word that would have been the basis for the borrowing was uncommon in Hebrew and Phoenician (Lewy 1895: 177–178).³⁰ This makes it more likely that the word was borrowed from Greek into Semitic.³¹ An additional problem is the meaning of the Semitic word: this means ‘sword’, but *mákhaira* is attested in Homer with the meaning ‘knife, dagger used in a sacrifice’ but is not used to refer to a sword (Seiler, Capelle 1889: 371; O’Sullivan 1993a).³² This brings us to the third suggestion, namely the link between *mákhaira* and *mákhomai*. At first, the link between *mákhaira* and *mákhomai* seems self-evident, as *mákhaira* means ‘knife, dagger’ and *mákhomai* ‘fight’. In that case, the former would be a derivation with suffix *ya* on an *r* extension of *mákhomai* (i.e. **makh* – *r* – *ya*) (Boisacq 1938: 616; Frisk 1970: 188; Peters 1980: 181).³³ Some have doubted this derivation, because *mákhaira* is not used to refer to a sword in Homer (cf. supra) (Seiler, Capelle 1889: 371; O’Sullivan 1993a, cf. supra). Prellwitz (1905: 284) and Boisacq (1938: 616) referred to the labour-class *kheiomákhai* in Miletos who represented the ‘hand-labourers’ and had nothing to do with fighting. In addition, they pointed out that the Greek medic in the *Iliad* was called Makhaon. This proved in their opinion that *mákhomai* did not only mean ‘fight’ but also ‘handle, treat with one’s hands’ and they therefore concluded that the link between *mákhomai* and *mákhaira* posed no problems. This analysis

²⁹ Lewy (1895: 177–178), with doubts because the suspected source was rare in Phoenician and Hebrew. The borrowing hypothesis was reiterated by Stella (1967: 121–122).

³⁰ See note 29.

³¹ Sayce (1928: 162) noted that the words were identical, but did not say which language borrowed from which. Frisk (1970: 187) stated that Gordon had argued for a borrowing by Semitic coming from Greek. Rosół (2012: 192–193) rejected the borrowing by Greek because the meanings did not match.

³² Lewy himself had already noted this.

³³ Schwyzer (1939: 475) only discussed the suffixation, but not the etymology.

is not convincing, however. First, *mákhomai* means 'fight' in Homer and never 'make' or 'treat with hands' or something similar (Ebeling 1885: 1023–1025; Seiler, Capelle 1889: 372; O'Sullivan 1993b). Second, Makhaon might be a medic but he was also a soldier and came to Troy with a contingent of soldiers (Seiler, Capelle 1889: 371, referred to *Iliad* 2,729–733). Third, *kheiomákhai* are attested much later. There is, however, a reason why *mákhaira* might have been derived from *mákhomai* and not from *mágeiros*. As a sacrificial knife is used to kill animals, it is more likely that such a word is derived from a verb from fighting, whereas a word for 'cook' is more likely to be formed from a verb that means 'prepare, handle (food)'. This brings us to the word *mákhomai*, which has no certain etymology either, cf. O'Sullivan (1993b: 45).³⁴ Five suggestions have been made. Fick (1901b: 320) linked *mákhaira*, *mákhomai*, *Makháo:n* with *me:khané*: 'means, trick' (Doric *ma:khaná:*). Wiedemann (1904: 62–63) followed this suggestion, added Germanic **mag* 'be able' to the equation and reconstructed **māgh*. Wiedemann's suggestion was expanded by Trümpy (for Greek) and adopted by Hofmann and LIV² (with a short vowel) (Hofmann 1950: 201; Trümpy 1950: 126–128; Zehnder 2001a: 422, with reference to Trümpy). The second suggestion was to link it with an alleged personal name *Amadzón* which would be the Aeolic adaptation of an Iranian name *hamazan* 'warrior' (Hofmann 1950: 192–193; Pokorny 1959: 697). This suggestion is very unlikely (Frisk 1970: 188, *ebenso geistreich wie unsicher*). A third suggestion is to connect it with Vedic *makha-* 'fighter' and to reconstruct the Greek and Vedic words as **mak^h*.³⁵ Grassmann (1873: 971) started from an original meaning 'hit with a (sacrificial) knife, slaughter, fight' and linked Greek *mákhomai*, Vedic *makhá* and Latin *mactāre* 'to slaughter'.³⁶ He argued that the other meanings of the word, 'hero' and 'enemy' could both be derived from 'fight', but Macdonell (1893: 272) and Monier Williams (1899: 772) translated the word as 'joyful, vigorously'.³⁷ After careful consideration, Renou (1966: 141) argued that the original meaning was 'fight' after all.³⁸ The fourth suggestion is that by Malzahn, Peters (2008: 266–267, without mentioning the Dutch word), who link it with Tocharian *māke* 'run' and reconstructed **meg^hH* with a metathesis in Greek. They linked *mákhlos* 'lascivious' as well (cf. infra) and started from the meaning 'run': *mákhomai* originally meant 'run' and evolved via 'run aggressively' into 'fight', while *mákhlos* originally meant 'running' and this evolved into 'lascivious' (for this evolution there would be a parallel in German *läufig* 'sexually in heat [of females]' and Dutch *loops* 'sexually heated [usually of female animals]').

³⁴ See also the doubts in Chantraine (1968: 673–674) and Frisk (1970: 187–188).

³⁵ This had been suggested by Kuhn (1855: 19–21); Grassmann (1873: 971); Curtius (1879: 327); Renou (1966: 141); Dunkel (1979: 259); Mayrhofer (1996: 288, with doubts). **mak^h* is our suggestion and not that by Mayrhofer.

³⁶ The link with the Latin word was preserved in Wiedemann (1904: 62) and Lewis, Short *s. u.* but the other etymological dictionaries denied the link (Walde, Hofmann (1954: 5) and Hofmann (1935: 8) linked with Greek *máссо*: 'I knead' while Ernout, Meillet (1967: 376) and De Vaan (2008: 357) denied it had any cognates at all).

³⁷ This meaning is also mentioned in Mayrhofer (1996: 288).

³⁸ Chantraine (1968: 673–674) stated that the meaning was uncertain, but referred to Renou (1966: 141) who suggested that the original meaning was 'fighter'.

In that case, the link with Sanskrit has to be given up. What argues against this equation, is that Greek would have preserved two derivations from the root but that none of them maintained the original meaning. The fifth suggestion is that by Beekes (2010: 916) who called the word “probably PG”, because it was isolated and because in the field of fighting inherited terms were unlikely. The last suggestion is *non liquet*, which is in our opinion only the last resort when there are really no other options. If the meaning of Sanskrit *makhá* was indeed ‘fight’, there is in our opinion nothing that argues against a link between the Greek and Sanskrit word, as they correspond perfectly in form and it would be a violation of Ockham’s Razor to state that the Sanskrit word was borrowed from a Dravidian language,³⁹ and that the Greek word was borrowed from another non-Indo-European language.⁴⁰ Linking the Latin word is more problematic: phonologically, a form **mak^h* could account for the Latin *mac-tāre* (as a Latin sequence *mac* can only come from a root with an *a* in it), but semantically, it is more problematic, because one would then have to start from a meaning ‘hit with a (sacrificial) sword’, which would have been preserved in Greek *mákhaira* and Latin *mactāre* and would have evolved into ‘fight’ in *mákhomai* and *makhá*. This cannot be ruled out, but it seems more cautious to link the Greek and the Sanskrit word; to posit a Graeco-Aryan isogloss **mak^h*- ‘fight’ (rather than to link *mákhomai* with the Germanic root *mag^h*) and to assume that *mákhaira* was a secondary derivation from *mákhomai*.

17. *mákhlos* ‘lascivious (of a woman), horny’ (Beekes 2010: 915–916). Prellwitz (1905: 284, with doubts) linked this word to Sanskrit *makha*,⁴² but this is semantically unlikely (Chantraine 1968: 673; Frisk 1970: 187; Beekes 2010: 916). Furnée (1972: 209, 211) compared the word with the god Bakkhos and Beekes therefore suggested this word was PG because of the variation *m/b*. As we argued elsewhere, allowing such widespread variations is problematic, because it is not falsifiable and enables one to link almost any set of words (De Decker 2015).⁴³ Malzahn, Peters (2008: 267) argued that the word was related with Tocharian *máke* ‘run’ and compared German *läufig* ‘(sexually) in heat (of females)’, but as we argued above, the problem is that the alleged root **meg^hH* ‘run’ would then only have survived in Greek in two words with changed meanings and with metathesis. As the word is attested in Armenian *mahaz* ‘lascivious’ (as noted by Beekes himself) and is close in meaning to the Greek word, it could very well present another Helleno-Armenian isogloss.⁴⁴ If the words were independently borrowed from the same language, it would mean that the PG

³⁹ This was suggested in Mayrhofer (1996: 288).

⁴⁰ We refer to Dunkel (1979: 259): “no convincing argument has ever been made against the connection of *makhá* and *mákhe*., only alternative suggestions”.

⁴¹ Neither Kluge et. al. (1957: 484) nor the online German lexicon DWDS included the verb *mákhomai* among the cognates of the German *mögen* ‘be allowed, be able’.

⁴² The link was recently reiterated by Malzahn, Peters (2008: 267, without mentioning Prellwitz).

⁴³ Similar arguments were made in Verhasselt (2009a, 2009b, 2011), and in Meissner (2014).

⁴⁴ It was not addressed in Clackson (1994) nor in Martirosyan (2008) and the Armenian word was not mentioned in Prellwitz (1905: 284) nor in Frisk (1970: 187).

language was spoken in an area vast enough to have influenced both Greek and Armenian (either when they were still together or individually). The question is if assuming an Helleno-Armenian isogloss would not be the more economic option.

18. *me:khané*: 'tool, ruse'.

19. *mánganon* 'ruse' (Beekes 2010: 949–950).

The question is if both Greek words can be considered related to Gothic, German and Dutch *mag* 'he is able', OCS *mogo* 'be able' and possibly also Vedic *maghá* 'gift', in which case they would go back to the root **mag^h* 'powerful' (Von Miklosich 1886: 199; Osthoff 1891: 216–217; Chantraine 1968: 700; Frisk 1970: 235).⁴⁵ Beekes rejected the connection with the Germanic and Slavic forms because of the non-existence of PIE **a* and pointed to a suggestion by Van Beek, who compared this word with *mánganon* 'ruse' (Van Beek *apud* Beekes 2010: 949–950). As *mánganon* had a voiced stop and "pre-nasalization" and *me:khané*: had a voiceless stop, this word was considered to be PG. Neither argument is convincing. First, there are words that prove the existence of a phoneme **a* for PIE. An important example is in our opinion the word for 'blind', which is *caecus* in Latin and is related to Sanskrit *kekaras* 'squinting'. The Sanskrit word rules out reconstructions **kh₂eik* or **keh₂ik* as the former would have given ***khekaras* and the latter ***kaikaras*. Second, the consonant variation *ng/kh* can be explained as the result of an internal Greek sound law. If we start from a stage of Proto-Greek with the voiced aspirates still present, we could assume that from the form *magh-*, a derivation with a nasal infix *n* and suffix *an* (a similar derivation occurred in *túmpanon* 'kettledrum' derived from *túpto*: 'I beat') was made, namely **mángghanon*. In that form, the voiced aspirate was preceded by a nasal and also preceded by the accented syllable. Under these conditions, Greek rendered the voiced aspirate by a voiced stop. This is known as Miller's Law (Miller 1977a: 151, 1977b: 37–38). As such, *mánganon* is an expected outcome and is not an indication of Pre-Greekness. The long vowel in *me:khané* needs an explanation as well. Frisk, following Schwyzler, suggested that besides the *s* stem *mêkhos* 'means, remedy' with lengthened grade, there was also an *s* noun **mâkhar*, **mákhanos* from which a feminine and oxytone noun *me:khané*: was derived with the lengthened grade (although the lengthened grade from *mêkhos* could have contributed as well) (Schwyzler 1939: 459; Chantraine 1968: 700; Frisk 1970: 235). The Greek forms could also be explained from the root **māgh* with a long vowel. In that case, the short vowel of *mánganon* could be explained by Osthoff's Law.⁴⁶ As the variations between the Greek words can be explained by internal Greek sound laws and there are cognates in other Indo-European languages, we believe that there is no need to catalogue this word as PG.

⁴⁵ Frisk noted that Bopp and Pott had already made this equation. The connection with Greek goes back to Fick (1901b: 320) and Wiedemann (1904: 62–63), and was adopted in Pokorny (1959: 659), Mayrhofer (1996: 289) and Zehnder (2001a).

⁴⁶ This sound law, which is not of Indo-European date as it does not operate in Indo-Iranian and Tocharian, states that a long vowel is shortened in Latin and Greek when it is followed by a resonant and a consonant.

20. *molobrós* (uncertain meaning) (Beekes 2010: 963). This word is used as epithet for Odysseus when he was still disguised as a beggar and therefore must have had a negative or derogatory meaning. Earlier attempts to explain this word are phonologically impossible. One example is that by Fick (1904: 97), who linked it with *blábe*: ‘damage’ from a root **mleb* which would have had *molob* in the full grade. This is impossible (Frisk 1970: 250–251). This word is not only attested in Homer but also appears in Mycenaean as *mo ro qo ro* and therefore the word must have had a labio-velar. Chantraine considered this word a compound of *molo* and **g^wro* and translated it as ‘animal qui dévore les jeunes pousses’ (Chantraine 1968: 709, 1972: 203–205). The first part of the Greek word is not attested in the meaning ‘flea’, however, but has an equivalent in Indic *mala* ‘dirt, shit’ and the second is a form of the root **g^werh₃* ‘devour’ in the zero grade (Normier 1980: 276; Neumann 1992: 75–80; De Leeuw 1993). As this is a compound, the form was subject to the so-called *neognós* rule, which states that in compounds or reduplicated forms, a laryngeal is lost when it is preceded by a sonorant and followed by a vowel:⁴⁷ thus **molo-g^wrh₃-os* became **molog^wros*, leading to the attested Greek form. Beekes considered this word PG, because he did not accept the loss of laryngeals in compounds (Beekes 2010: 963 *I do not accept the loss of laryngeals in compounds*). This is strange, because elsewhere in his dictionary and his publications he mentioned the *neognós* rule. As this word can be explained from an Indo-European perspective and has a meaning that makes perfect sense in the context (‘Dreckfresser’),⁴⁸ we see no need to assume PG origin.

21. *mogéo*: ‘I am in distress, suffer’ (Beekes 2010: 960–961).

22. *mógos* ‘pain’ (Beekes 2010: 960).

23. *mókhthos* ‘difficulty, distress’ (Beekes 2010: 973).

24. *mókhlos* ‘handle, long or strong rod’ (Beekes 2010: 973).

The first three words are clearly linked and the basic word is *mogéo*: (Chantraine 1968: 707–708). Attempts have been made to find an Indo-European etymology. Schulze

⁴⁷ The Greek word *neognós* ‘newly born’ is a compound **neo-ǵnh₁-os* of *néos* ‘new’ and *ǵnh₁* ‘originate’. In that compound, the laryngeal is lost. Beekes is considered the inventor of that rule, see Beekes (1969: 241–245, pointing out that Hirt might be the first one to state that laryngeal loss in compounds could occur; 1982: 114; 1988: 60–61, pointing out that there were only a few examples). In Beekes (2010: 1079) he mentioned the rule.

Mayrhofer (1986: 129) assumed that the rule applied to **h₁* alone, but this example proves that all laryngeals were subject to this rule. Weiss (2009: 113) stated that the rule operated in “long” words such as reduplications and compounds. See also Byrd (2015: 26).

There are, nevertheless, several exceptions to this rule, especially – but not exclusively – in reduplicated presents, such as Greek *titró: sko*: ‘I wound’ from **terh₃*. The reduplicated form **tith₃skoh₂* should have given **titrskoh₂* by the *neognós* rule and also by the Schmidt-Hackstein rule (this rule, based on Schmidt 1973 and Hackstein 2002 states that a cluster CHCC became CCC in PIE). This last form should have given Greek **titrásko*: but it is very likely that this form was reformed (or that the laryngeal was reintroduced) after the aorist *étro: sa* ‘I wounded’. Byrd (2015: 85–125) argued that the Schmidt-Hackstein rule only applied in cluster PHCC (i.e. only when the consonant preceding the laryngeal was a plosive and not just any consonant), but even if this is correct, the presents are still an exception to the *neognós* rule. Analogical reintroduction seems the only possible solution.

⁴⁸ This is the translation suggested by Neumann and De Leeuw.

(1887: 270) tried to connect these words with Latin *mōlēs* ‘burden, heavy weight to carry’, Solmsen (1888: 85–86) suggested to link *mógos* with Lithuanian *smagùs* ‘heavy to carry, heavy to drag’ and Latvian *smags* ‘heavy’. Meier-Brügger (1993) suggested that the Greek words contained the *o* grade of the adjective *mégas* ‘big’ and compared *mélas* ‘black’ and *mólos* ‘dirt’. The suggested cognates are not certain: the link with Latin *mōlēs* has been doubted by Walde, Hofmann (1954: 102), and neither Ernout, Meillet (1967: 410) nor De Vaan (2008: 386) even mentioned the link,⁴⁹ and according to Fraenkel the Baltic words should be linked to Lithuanian *smagiù* ‘hit, throw something heavy’ (quoted in Frisk 1970: 262). The connection between *mókhlos* and Latin *mōlēs* can, however, not be excluded a priori, if one reconstructs *mogslo-* with the suffix *slo* that is attested elsewhere in Latin as well (as can be seen in *inpālus* ‘pale, stake’ from **pagslo-*) (Schulze 1887: 270; Walde, Hofmann 1954: 243; Ernout, Meillet 1967: 478; Frisk 1970: 262). The Greek form *mókhlos* ‘handle’ could be included assuming that a handle is a tool to perform (heavy) labour: it could be an original *mogslo-* with a suffix *slo*. The form would then have lost the interconsonantic sigma and have aspirated the other consonants, which occurred in *érkhomai* ‘I go’ from Proto-Greek **erskomai*. This is better than Chantraine’s (1933: 240) explanation that the suffix was *lo* and that the aspiration was expressive. The main problem with Schulze’s equation is the difference in declension type in Greek and Latin. Solmsen’s (1888) explanation assumes a link between ‘heavy’ and ‘difficult’ which is acceptable, but Meier-Brügger’s (1993) suggestion is more problematic. He assumed an evolution from ‘big’ into ‘heavy’ into ‘difficult’ and explained the verb’s original meaning as ‘groß machen’ which became then ‘unter großer Anstrengung tun’. A last remark involves the form. If **me/oǵh₂* were the basis, would one not have expected Greek **mogáo*? If the Baltic cognates are not related, the word has no etymology (but even with Latin and Baltic cognates, a PIE origin would not have been entirely certain). Beekes argued that the links of *mogéo*: with other Indo-European languages were hardly credible. He also argued that the form *móklos* (attested in Anakreon, living in Asia Minor in the 6th century BC) with a plain voiceless plosive instead of an aspirated one in *mókhlos* and the variation *khth* in *mókhthos* and *g* in *mogéo*: proved that all the words were PG. We do not believe that the derived words are evidence for PG origin. The variation between *móklos* and *mókhlos* can be explained by an influence of Anakreon’s dialect as well. As he lived in Asia Minor and wrote in Ionic (which was a psilotic dialect), the form without an aspirate could reflect his everyday speech. The aspirate in *mókhlos* has been explained above. For *mókhthos*, one can assume that the suffix *-thos* was added to the stem *mog*.⁵⁰ This suffix can be used in words referring to difficult situations or negative feelings such as *ákthos* ‘burden, burden of pain’ besides *ákhos* ‘pain’. Chantraine (1933: 366–367) considered this to be an inherited expressive suffix, visible in Sanskrit *tha*.⁵¹ Another explanation is

⁴⁹ De Vaan stated that *mōlēs* did not have a good etymology.

⁵⁰ Rather than a suffix *sdho* (Schulze 1887: 270) or *stho* (Prellwitz 1905: 301).

⁵¹ Frisk (1970: 261–262) agreed with the Greek expressive suffix but did not mention the Sanskrit suffix.

a link with **d^heh_i* ‘put’ and then the suffix *thos* would be an original **d^hh₁os* meaning ‘bringing, carrying X’. It is therefore not correct to use the variation *g/khth* as proof for Pre-Greekness. Even if *mogéo:* were of non IE origin, the noun *mókhthos* could represent a regular Greek compound.

25. *mudáo:* ‘to be humid’ (Beekes 2010: 974).

26. *múdro:* ‘metal roasted in fire, glowing stones’ (Beekes 2010: 975).

As *múdro:* represents the molten iron, a link with the verb *mudáo:* is very likely (Debrunner 1908: 5, 9). Beekes considered the noun to be PG because of the anlaut *sm* which is also attested and because of the technical meaning. We believe that this is not necessary. Many words of technical meaning are of non-IE origin, but that does not mean that they are all of such origin; second, the anlaut *sm* could be onomatopoeic or could have been influenced by other words with an anlaut *C/sC*. The verb is also attested with a long *u*, which is explained as metrical lengthening (Curtius 1873: 336; Frisk 1970: 263; Beekes 2010: 974). Beekes argued that the verb was PG as well because of the link with the adjective *múso:* (variation *d/s* in one word would point to PG) and because the verb was attested with a long and short vowel. We believe that the arguments are not convincing. First, the distinction in vowel length might be ascribed to metrical lengthening (as Beekes admitted himself) and as such, it has no probative value. Second, there is the connection with the Dutch word *mot(regen)* ‘light rain’ and the Sanskrit word *mudirá* ‘cloud’⁵² (but this is attested only in the Classical Sanskrit period). As the Indic word also means ‘lover’ according to the lexica, it is often linked to the noun *mud-* ‘joy’ (Curtius 1873: 336; Frisk 1970: 263), but this connection is rather doubtful and maybe there was an Indic root *MOD* ‘wet’ besides *MOD* ‘rejoice’ (Mayrhofer 1996: 383).⁵³ As such, we believe that the word is of Indo-European origin (as Germanic, Greek and Indic did not have shared innovations).⁵⁴

27. *múdo:* ‘voiceless, numb’ (according to Hesychios) (Beekes 2010: 975).

28. *mukós* ‘speechless’.

These two words have been explained by Hesychios as *ápho:nos* ‘speechless’. As *múdo:* is also attested as *múndo:*, Beekes argued that the words were PG because of the so-called “pre-nasalization”. This is not certain, however. There is the word *munj* in Armenian, which could continue **mund-yo-*. If this were the case, it could be an Helleno-Armenian isogloss and consequently, PG would be excluded. Clackson (1994)

⁵² Boisacq (1938: 648, without mentioning the Dutch word), Hofmann (1950: 206), Chantraine (1968: 718). Frisk (1970: 263) mentioned the connection, but was doubtful about an etymological link.

⁵³ He mentioned the Greek words but not the Dutch one.

⁵⁴ The recent Dutch etymological dictionary by Van Veen, Van der Sijs (1997: 569, 579) linked the Dutch word with Dutch *modder* ‘mud’, English *mud* (this connection had already been made by Prellwitz 1905: 301), Greek *mudrós* and Avestan *muthra* ‘faeces’ and Indic *mutra* ‘urine’, but this is unlikely as an Indo-Iranian *t*, a Greek *d* and a Germanic *d* cannot be linked with each other.

considered the reconstruction **mundy* or **mūdy* for the Armenian form *somewhat dubious*,⁵⁵ but he did not discuss the Greek word. Personally, we do not see why a link between the Greek and Armenian word would be excluded. It also seems that the word *mukós* cannot be separated either. In other languages, there are words with an initial *mul/mū* that refer to the absence of speaking such as Latin *mūtus* ‘dumb’ and Sanskrit *mūka* ‘dumb’ with different extensions (Ernout, Meillet 1967: 427; Chantraine 1968: 720; De Vaan 2008: 398). A connection with sound imitating *mū* is possible (Frisk 1970: 268), but then the connection with *mūthos* (cf. infra) is difficult, because that word means ‘word’ and not ‘dumb, deaf, soundless’. One single etymology that connects all different words is not available, but it seems that all words are derivations with different suffixes from the onomatopoeic root *mul/ū*. As such, there is no need to posit a PG origin for these words.

29. *mūthos* ‘word’ (Beekes 2010: 976). This word is in formation very similar to the words mentioned above and can -at least formally- be explained by the root **mū* and the suffix **thos* (be it from **t^ho-* or **d^hh₁o-*).⁵⁶ There are two problems with this explanation: first, there is no indication in the texts that *mūthos* was ever an onomatopoeic word (Chantraine 1968: 719: “mais le sens du mot, dès les plus anciens textes, n’est pas en faveur de cette hypothèse”) and second, the other words derived from this root mean ‘dumb, not speaking’, which is exactly the opposite. The second observation is maybe less problematic, if one assumes an initial meaning ‘producing the *mū* sound’ which would have evolved into ‘producing a sound’ and eventually into ‘what is produced by the mouth, (namely) word’. Beekes suggested that the word was PG because there were no comparanda, but not every Greek word without an Indo-European etymology is of substrate origin.

30. *mukhós* ‘hiding place, innermost place, storage room’ (Beekes 2010: 987). According to Wace (1951: 209–210), the word was also used to refer to the private rooms of the master of the house. Fick (1909: 149) linked *múskhon* ‘female and male genitalia’ with *mukhós* as well and suggested an etymology **mukh-sko*, in which the first velar was lost but the aspiration was transferred to the last velar. Semantically, there is no problem with this explanation, as the genitalia are those parts that remain hidden. Cognates of this word in other Indo-European languages are OCS *smykati se* ‘crawl’, Lithuanian *smūkti* ‘glide’, ON *smjúga* ‘to slip in’ (Frisk 1970: 279; Beekes 2010: 987), with the first two forms derived from **smuk* and the last one from **smug^h*. Frisk connected *mokhós* with the Armenian verb *mxem* ‘immerse’, assumed a basis meaning ‘stuff away, hide’ from which the Greek word received its meaning ‘hiding place’ and reconstructed **muk^h*.⁵⁷ Clackson (1994: 182) considered the etymology doubtful and Beekes (2010: 987) rejected this reconstruction because

⁵⁵ Clackson (1994: 45), talking about the origin of the Armenian *u* (which is often written <ow> as well). Similar doubts were already voiced by Frisk (1970: 269).

⁵⁶ As was already done by Curtius (1873: 336, without discussing the suffix). See also Frisk (1970: 264–265).

⁵⁷ Already Solta (1960: 160) had linked these words. See Clackson (1994: 182).

voiceless aspirates were no longer accepted. As we stated above, voiceless aspirates are indeed much rarer than the other plosives, but there are a few words where another explanation is not possible (the same applies to PIE **b* and **a*) and “rare” does not mean “non-existent”. As the root **muk^h* with its voiceless aspirate is only attested in Greek and Armenian, it is not certain that it can be reconstructed for PIE. Other Indo-European languages display roots of a similar form but with different velars (**muk* and **mug^h*). Chantraine (1968: 728) explained this by the expressive nature of the word, and Frisk (1970) suggested that the different roots could be unified into one root with several allophonic variants due to assimilation with contiguous consonants. Maybe the Hellenic-Armenian innovation was that from a root **muk* and **mug^h* a root **muk^h* was extracted? Beekes mentioned that Furnée considered this word PG, but that the arguments were lacking (Beekes 2010: 987–988, referring to Furnée 1972: 364). Given the fact that this word is attested in several languages, PG origin is in our opinion excluded.

31. *mú:ps* ‘gadfly, goad, spur’ (Beekes 2010: 989). Prellwitz (1905: 192) started from the assumption that cattle feared this animal and that it recognized the insect by its tone. He therefore suggested a compound of the *mu* ‘mumming sound’ and *o:ps*. Boisacq (1938: 65) explained this word as a compound of *muia* ‘fly’ and *o:ps* ‘seeing’. The meaning would then be ‘what looks like a fly’. This etymology was accepted by Hofmann (1950: 209) and Frisk (1970: 281), but rejected by Chantraine (1968: 729). Beekes considered it unlikely and rather suggested PG origin because of the suffix *o:ps* that could be found in other insect names such as *kó:no:ps* ‘gnat’. As there is a word *mú:ps* ‘short sighted’ which is a compound from *múo*: ‘I close’ and *o:ps* ‘seeing’ and which literally means ‘with closed vision, (hence) ‘short-sighted’,⁵⁸ there is nothing that rules out that and in this case we would have another *o:ps* compound ‘with fly-looks’.

3. Conclusion

While it was not our goal to rewrite the dictionary, we hope to have shown that many of the words catalogued as <PG> or <PG?> allowed for other explanations as well (this is the reason why we often decided to discuss earlier etymologies as well). In several instances, there was no agreement on an etymology or there was no established etymology altogether, but in many instances, an Indo-European etymology was available. We never argued (nor will we ever argue) that each and every word in Greek has to have an Indo-European etymology nor that there are no borrowings in the Greek lexicon. The main intention of this article was to show that in establishing etymologies one should look at the evidence and not be searching for borrowings when they are not there, and that strict and falsifiable rules should be used.

⁵⁸ This analysis was accepted by Beekes (2010: 989) as well.

References

- Bally C., Gautier L. 1922. *Recueil des publications scientifiques de Ferdinand De Saussure*. Genève.
- Beekes R. 1969. *The development of the Proto Indo European laryngeals in Greek*. The Hague.
- Beekes R. (rev.). 1982. Peters 1980. – *Kratylos* 26: 106–115.
- Beekes R. 1988. Laryngeal developments: A survey. – Bammesberger (ed.). 1988: 59–105.
- Beekes R. 2010. *Etymological dictionary of Greek*. Leiden.
- Benveniste E. 1935. *Origines de la formation des noms en indo-européen*. Paris.
- Boisacq E. 1938. *Dictionnaire étymologique de la langue grecque*. Heidelberg.
- Brugmann K. 1876. Zur Geschichte der stammabstufenden Declinationen, Erste Abhandlung: Die Nomina auf *ar* und *tar*. – *CS* 9: 361–406.
- Brugmann K. 1894. *Moûsa; triaina, thrínaks, Thrinakíe; eneika*. – *IF* 3: 253–264.
- Brugmann K. 1905. Alte Wortdeutungen in neuer Beleuchtung. – *IF* 18: 423–439.
- Byrd A. 2015. *The Indo-European syllable*. Leiden.
- Chantraine P. 1933. *La formation des noms en grec*. Paris.
- Chantraine P. 1948. *Grammaire homérique. Tome I: morphologie*. Paris.
- Chantraine P. 1968. *Dictionnaire étymologique de la langue grecque*. Paris.
- Chantraine P. 1972. Le témoignage du mycénien pour l'étymologie grecque: *daí, Kopreús, Kukleús, molobrós, mólubdos*. – *Minos* 12: 197–206.
- Clackson J. 1994. *The linguistic relationship between Armenian and Greek*. Oxford, Cambridge (MA).
- Clackson J. 2007. *Indo-European linguistics*. Cambridge.
- Cuny A. 1912. Notes de phonétique historique: indo-européen et sémitique. – *RPhon* 2: 101–132.
- Curtius G. 1873. *Grundzüge der griechischen Etymologie*. Leipzig.
- Curtius G. 1879. *Grundzüge der griechischen Etymologie*. Leipzig.
- Debrunner A. 1908. Die Adjektiva auf *aleos*. – *IF* 23: 1–43.
- De Decker F. 2011. Evidence for laryngeal aspiration in Greek. Part 1: The “recent” evidence. – *IF* 116: 87–109.
- De Decker F. (rev.). 2015. Beekes 2014. – *IJDL* 13: 1–23.
- De Decker F. [forthcoming a]. Evidence for laryngeal Aspiration in Greek? Part 2: The older evidence. – *Orbis*.
- De Decker F. [forthcoming b]. What is the Greek counterpart of (Proto-)Indo-Iranian (*)th? – *IJDL*.
- De Leeuw J. 1993. *molobrós*. – *LfgrE* 15: 252.
- De Vaan M. 2008. *Etymological dictionary of Latin and the other Italic languages*. Leiden.
- Dunkel G. 1979. Fighting words: Alcman *Partheneion* 63 *mákhontai*. – *JIES* 7: 249–272.
- DWDS = Digitales Wörterbuch der Deutschen Sprache. [Accessible online: www.dwds.de].
- Ebeling H. 1885. *Lexicon Homericum* I. Leipzig.
- Ehrlich H. 1907. Zur Mythologie II. *Moûsa*. – *KZ* 41: 287–289.
- Elbourne P. 1998. Proto-Indo-European voiceless aspirates. – *KZ* 111: 1–30.
- Elbourne P. 2000. Plain voiceless stop plus laryngeal in Proto-Indo-European. – *KZ* 113: 2–30.
- Elbourne P. 2001. Aspiration by *s* and devoicing of Mediae Aspiratae. – *KZ* 114: 197–219.
- Elbourne P. 2011. *epírrhotos*. – *Glotta* 87: 37–57.
- Elbourne P. 2012. A rule of deaspiration in Greek. – Probert P., Willi A. (eds.). *Laws and rules in Indo-European*. Oxford: 125–133.
- Ernout A., Meillet A. 1967. *Dictionnaire étymologique de la langue latine*. Paris.
- Fick A. 1872. Etymologische Beiträge. – *KZ* 20: 161–181.
- Fick A. 1890. *Wörterbuch der indogermanischen Sprachen*. [vol. 1; 4th edition]. Göttingen.

- Fick A. 1901a. Die griechischen verbandnamen (ethnika). – *BB* 26: 233–265.
- Fick A. 1901b. Asklepios und die heilschlange. – *BB* 26: 313–323.
- Fick A. 1904. Hesychglossen. – *BB* 28: 84–111.
- Fick A. 1909. Hesychglossen VI. – *KZ* 43: 130–153.
- Fortson B. 2004. *Indo-European language and culture. An introduction*. Oxford.
- Frisk H. 1936. Suffixales *th* im Indogermanischen. – *GHÅ* 42: 3–46.
- Frisk H. 1960. *Griechisches Etymologisches Wörterbuch*. [vol. 1: A–Ko]. Heidelberg.
- Frisk H. 1970. *Griechisches Etymologisches Wörterbuch*. [vol. 2: Kr–O]. Heidelberg.
- Furnée E. 1972. *Die wichtigsten konsonantischen Erscheinungen des Vorgriechischen*. Amsterdam.
- Grammont M. 1948. *Phonétique du grec ancien*. Paris.
- Grassmann H. 1873. *Wörterbuch zum Rig Veda*. Leipzig.
- Greppin J. 1981. Gr. *mallós* ‘fleece, lock of wool’. – *Glotta* 51: 70–75.
- Hackstein O. 1995. *Untersuchungen zu den sigmatischen Präsensstambildungen des Tocharischen*. Göttingen.
- Hackstein O. 2002. Uridg. *CH.CC > *C.CC. – *KZ* 115: 1–22.
- Hamp E. 1982. *mallós* a clarification. – *Glotta* 60: 61–62.
- Harðarsson H. 1998. Mit dem Suffix *-eh₁- bzw. *(e)h₁-ye/o- gebildete Verbalstämme im Indogermanischen. – Meid W. (ed.). *Sprache und Kultur der Indogermanen: Akten der X. Fachtagung der Indogermanischen Gesellschaft*. Innsbruck: 323–339. [quoted in Piwo-warczyk forthcoming and Verhasselt forthcoming].
- Hofmann J. 1935. *macerō*. – *Thesaurus Linguae Latinae* 8: 8–10.
- Hofmann J. 1950. *Etymologisches Wörterbuch des Griechischen*. München.
- Kluge F. et al. 1957. *Etymologisches Wörterbuch der deutschen Sprache*. [Many later reprints]. Berlin.
- Krahe H. 1928. *Kháones, Khônes*. – *Glotta* 17: 158–160.
- Kuhn A. 1855. Über das alte S und einige damit verbundene lautentwicklungen. Sechster artikel. Der anfall des s vor mutis. – *KZ* 4: 1–46.
- Kuiper F. 1934. *Die indogermanischen Nasalpräsentia*. Amsterdam.
- Kümmel M. 2001. **u̯erh₁*. – *LIV* 2: 689–690.
- Kümmel M. [forthcoming]. The lengthened grade in the nominative singular. [Accessible online: https://www.academia.edu/10167321/The_lengthened_grade_in_the_nominative_singular (Accessed August 3rd, 2015)].
- Kuryłowicz J. 1927. Les effets du ə en indo-iranien. – *Prace Filologiczne* 11: 201–243.
- Kuryłowicz J. 1928. Le type védique grbhāyati. – Meillet A. (ed.). *Étrennes de linguistique offertes par quelques amis à Émile Benveniste*. Paris: 51–62.
- Kuryłowicz J. 1935. *Études indo-européennes*. Wrocław.
- Lewy H. 1895. *Die semitischen Lehnwörter im Griechischen*. Berlin.
- LfgRE 15 = Meier-Brügge M. (ed.). 1993. *Lexikon des frühgriechischen Epos*. *μά* – *νεῖνις*. Göttingen.
- Lindeman F. 2004. On the vocalization of ‘laryngeals’ in Indo-European. – *KZ* 117: 118–133.
- LIV² = Rix H. et al. 2001. *Lexikon der indogermanischen Verben*. Wiesbaden.
- Macdonell A. 1893. *A Sanskrit – English dictionary*. London.
- Malzahn M., Peters M. 2008. How (not) to compare Tocharian and Ancient Greek verbal stems. – Kim R. et al. (eds.). *Ex Anatolia Lux. Anatolian and Indo-European studies in honor of Craig Melchert*. Ann Arbor: 265–268.
- Martirosyan H. 2008. *Studies in Armenian etymology, with special emphasis on dialects and culture*. [PhD thesis]. Leiden.
- Mayrhofer M. 1981a. Ferdinand de Saussure. Nach hundert Jahren. – *Sitzungsberichte der Heidelberger Akademie der Wissenschaften*: 7–38.

- Mayrhofer M. 1981b. Laryngalreflexe im Indo-Iranischen. – *ZPSK* 34: 427–438.
- Mayrhofer M. 1986. *Indogermanische Grammatik*. Heidelberg.
- Mayrhofer M. 1996. *Etymologisches Wörterbuch des Altindoarischen*. [Band 2]. Heidelberg.
- Mayrhofer M. 2005. *Die Fortsetzung der indogermanischen Laryngale im Indo-Iranischen*. Wien.
- Meier-Brügger M. 1993. Zu griechisch *mogéo*: und Familie. – *Glotta* 70: 134–135.
- Meier-Brügger M. 2010. *Indogermanische Sprachwissenschaft*. [Zweite erweiterte Auflage]. Berlin.
- Meiser G. 2005. Lat. *mando*, *mandi* ‘kaue’. – Marchesini S., Poccetti P. (eds.). *Linguistica è storia. Scritti in Onore di Carlo di Simone*. Pisa: 121–125.
- Meissner T. (rev.). 2014. Beekes 2010. – *Kratylos* 58: 1–31.
- Miller G. 1977a. Was Grassmann’s Law reordered in Greek? – *KZ* 91: 131–158.
- Miller G. 1977b. Some theoretical and typological implications of an IE root structure constraint. – *JIES* 5: 31–40.
- Monier Williams M. 1899. *A Sanskrit – English dictionary*. Oxford.
- Narten J. 1960. Das vedische Verbum *math-*. – *III* 4: 121–135.
- Neumann G. 1992. Griechisch *molobros*. – *KZ* 105: 75–80.
- Nikolaev A. 2010. Indo-European **demh₂* „to build“ and its derivatives. – *KZ* 123: 56–96.
- Normier R. 1980. Tocharisch *ñakt/ñakte* ‘Gott’. – *KZ* 94: 251–281.
- Osthoff H. 1891. Das Praeteritopraesens *mag*. – *PBB* 15: 211–218.
- O’Sullivan J. 1993a. *Mákhaira*. – *LfgrE* 15: 44.
- O’Sullivan J. 1993b. *Mákhomai*. – *LfgrE* 15: 45–49.
- Pedersen H. 1893. *r/n* stämme. Studien über den stammwechsel in der declination der idg. Nomina. – *KZ* 32: 240–273.
- Pedersen H. 1926. *La cinquième déclinaison latine*. Copenhagen.
- Peters M. 1980. *Untersuchungen zur Vertretung der indogermanischen Laryngale im Griechischen*. Wien.
- Peters M. 1993a. *Oresq-* neben *orestā*. – *Die Sprache* 35: 135–139.
- Peters M. 1993b. Beiträge zur griechischen Etymologie. – Isebaert L. (ed.). *Miscellanea Linguistica Graeco-Latina*. Namur: 85–113.
- Pinault G. 1982. A neglected phonetic law: The reduction of the Indo-European laryngeals in internal syllables before *yod*. – Ahlqvist A. (ed.). *Papers from the 5th International Conference on Historical Linguistics*. Amsterdam: 265–272.
- Piowarczyk D. 2008. *The treatment of laryngeals before yod in Indo-European verbs*. [MA thesis]. Leiden.
- Piowarczyk D. [forthcoming]. Some remarks on Pinault’s Rule in Greek.
- Pokorny J. 1959. *Indogermanisches Etymologisches Wörterbuch*. Bern.
- Prellwitz W. 1899. Lat. *flagitium*, lit. *Blōgas*. – *BB* 25: 280–288.
- Prellwitz W. 1905. *Etymologisches Wörterbuch der griechischen Sprache*. Göttingen.
- Rasmussen J. 1987. On the status of the aspirated tenues and the Indo-European phonation series. – *ALH* 20: 81–109.
- Rasmussen J. 1989. Die Tenues Aspiratae, Dreiteilung oder Vierteilung des indogermanischen Plosivsystems und die Konsequenzen dieser Frage für die Chronologie einer Glottalreihe. – Vennemann T. (ed.). *The new sound of Indo-European: Essays in phonological reconstruction*. Berlin: 153–176.
- Renou L. 1966. *Études védiques et paninéennes*. [15]. Paris.
- Ringe D. 2006. *From Proto-Indo-European to Proto-Germanic*. Oxford.
- Rosół R. 2012. *Frühe semitische Lehnwörter im Griechischen*. Frankfurt.
- Ruijgh C. (rev.). 1978. Rix 1976. – *Mnemosyne* 4.31: 298–307.

- Sayce H. 1928. Cybele and Gallos in the Hittite texts. – *CR* 42: 161–163.
- Schmidt G. 1973. Die iranischen Wörter für ‘Vater’ und ‘Tochter’ und die Reflexe des interkonsonantischen H (ə) in den indogermanischen Sprachen. – *KZ* 87: 36–83.
- Schulze W. 1887. Das lateinische v perfectum. – *KZ* 28: 299–274.
- Schwyzler E. 1939. *Griechische Grammatik*. München.
- Seiler E., Capelle C. 1889. *Vollständiges Wörterbuch zu den Gedichten des Homeros und der Homeriden*. Leipzig.
- Solmsen F. 1888. Sigma in Verbindung mit nasalen und liquiden im Griechischen. – *KZ* 29: 59–124.
- Solmsen F. 1909. Odysseus und Penelope. – *KZ* 42: 207–233.
- Solta G. 1960. *Die Stellung des Armenischen im Kreise der indogermanischen Sprachen*. Wien.
- Stella L. 1967. Una recensione di John Chadwick. – *SMEA* 4: 121–124.
- Szemerényi O. 1996. *Introduction to Indo-European linguistics*. Oxford.
- Trümper H. 1950. *Kriegerische Fachausdrücke im Griechischen Epos: Untersuchungen zum Wortschatze Homers*. Basel.
- Van Veen P., Van der Sijs N. 1997. *Groot etymologisch woordenboek*. Utrecht.
- Verhasselt G. 2009a. *Het Pre-Griekse substraat. Recente tendenzen binnen het taalkundig onderzoek*. [MA thesis]. Leuven.
- Verhasselt G. 2009b. The Pre-Greek linguistic substratum. An overview of current research. – *LEC* 77: 211–239.
- Verhasselt G. 2011. The Pre-Greek linguistic substratum. A critical assessment of recent theories. – *LEC* 79: 257–283.
- Verhasselt G. [forthcoming]. Die Lex Pinault: Ein idg. Lautregel? – *KZ* 126.
- Volkart M. 1994. *Zu Brugmanns Gesetz im Altindischen*. Bern.
- Von Miklosich F. 1886. *Etymologisches Wörterbuch der slavischen Sprachen*. Wien.
- Wace A. 1951. Notes on the Homeric house. – *JHS* 71: 203–211.
- Wackernagel J. 1895. *Moûsa*. – *KZ* 33: 571–575.
- Wackernagel J. 1896. *Altindische Grammatik. I. Lautlehre*. Göttingen.
- Walde A., Hofmann J. 1954. *Lateinisches etymologisches Wörterbuch*. [M–Z]. Heidelberg.
- Weiss M. 2009. *Outline of the historical and comparative grammar of Latin*. Ann Arbor.
- Whitney D. 1885. *The roots, verb-forms, and primary derivatives of the Sanskrit language: A supplement to his Sanskrit Grammar*. Leipzig.
- Wiedemann O. 1904. Etymologien. – *BB* 28: 1–83.
- Zehnder T. 2001a. *mag^h. – *LIV*²: 422.
- Zehnder T. 2001b. *meld^h. – *LIV*²: 431.
- Zehnder T. 2001c. *ment₂. – *LIV*²: 438–439.
- Zehnder T. 2001d. *meth₂. – *LIV*²: 442–443.
- Zubaty J. 1892. Die ursprachliche tenuis aspirata im Arischen, Griechischen und Latein. – *KZ* 31: 1–9.