KRZYSZTOF TOMASZ WITCZAK<br>Faculty of Philology, Department of Classical Philology<br>University of Łódź, Poland<br>ORCID: 0000-0001-8895-974X<br>krzysztof.witczak@uni.lodz.pl

# GREEK MEGAS AND LATIN MAGNUS 'GREAT, BIG, LARGE': A NEW CONTRIBUTION TO THE LARYNGEAL THEORY 

> For my teacher Prof. Dr.Hab. Ignacy Ryszard Danka,
> a fine classical philologist and Indo-Europeanist, on the occasion of the golden jubilee of his doctorate


#### Abstract

Almost a hundred years ago Jerzy Kuryłowicz, the well-known Polish linguist, convincingly demonstrated that the Indo-European short vowel *a was secondarily formed by the interaction of PIE. ${ }^{*} h_{2}$ with the next vowel ${ }^{*} e$. There are some instances where this explanation does not apply. The most characteristic example of the secondary root $a$-vocalism is the Latin adjective magnus 'great, large', etymologically related to Greek $\mu \varepsilon ́ \gamma \alpha \varsigma$ adj. 'great, big, large' (< PIE. *méĝh ${ }_{2} s$, cf. Arm. mec 'great', OInd. mahi- adj. 'great', Hitt. mekkiš adj. 'id.', Goth. mikils adj. 'id.'). Lat. magnus demonstrates an unexplained vowel [a] as opposed to PIE. *e. It is suggested that the Latin $a$-vocalism appeared as the effect of influencing the laryngeal $* h_{2}$ on the preceding syllable. In other words, the Latin adjective is created by the following regular development: PIE. ${ }^{*}$ méĝg $h_{2} s$ adj. 'great, large' $\rightarrow{ }^{*}{ }^{*}$ eĝgh ${ }_{2}{ }^{-}$ no-s adj. 'id.' > Proto-Latin *megAnos > *magAnos > Lat. magnus 'id.'. The same phonological law (which can be called the magnus rule) should be postulated for other Italic and Indo-European languages, e.g. MIr. maige adj. 'great' (< Celtic ${ }^{*}$ magjos 'id.' < *megAios 'id.' < *meĝh $h_{2}-\mathrm{i} o-s \leftarrow \mathrm{PIE} .{ }^{*}$ mégegh $_{2} s$ ); Toch. A māk, B māka adj. 'many' (< CToch. ${ }^{*}$ măkă $<{ }^{*}$ megAs < PIE. ${ }^{*}$ méğ $_{\mathrm{o}}{ }_{2} s$ ).


Keywords: Indo-European linguistics, Jerzy Kuryłowicz, laryngeal theory, magnus rule, secondary a-vocalism.

## 1. Introduction

The Indo-European nominal root *me $\hat{g}(h)$ - 'great, large', more correctly PIE. ${ }^{*} m e \hat{g} h_{2^{-}}$, is commonly posited in many handbooks and dictionaries (Pokorny 1959: 708-709; Mann 1984/87: 744; Mallory, Adams 1997: 344; Wodtko, Irslinger, Schneider 2008: 468-478). However, many Indo-European languages surprisingly demonstrate a number of formations with initial *mag-, omitting the basic variant *meg-completely. The unexpected vowel *a in the nominal root is usually explained as "an unusual reduction" (Orel 1998: 240), as a zero-grade ${ }^{*} m_{e} \hat{g}(h)$ - (Pokorny 1959: 708), as the regular development of ${ }^{m}$. before the voiced stop plus a consonant (Schrijver 1991: 480-481; Kim 2012: 143), as "an analogical replacement for a zero-grade" (Weiss 2021: 90, fn. 10) or even *mg ( $h_{2}$ )- with the so-called schwa secundum (Leumann 1977: 50; Mayrhofer 1986: 176; Meiser 2008: 65). These ad hoc suggestions are hardly convincing. It will be documented that the distribution of reflexes is generally regular. Some IndoEuropean subgroups use only *meg-, others exclusively prefer *mag- (Mallory, Adams 1997: 344), in other words, all the languages belonging to the IndoEuropean family demonstrate only one of two different reflexes of $*_{m e g} h_{2}$ : either with the primary root $e$-vocalism or with the secondary $a$-vocalism. In light of the above, an explanation in response to the initial question posed seems timely.

Reflecting on the secondary vowel [a], observed in some reflexes of the nominal root * $m e \hat{g} h_{2^{-}}$, it would seem this was regularly introduced by a laryngeal Umlaut, i.e. influenced by a (now lost) laryngeal (PIE. ${ }^{*} h_{2}$ ) existing earlier in the next syllable. The most representative instance seems to be the Latin adjective magnus 'great, large', which evidently derives from PIE. *megh $2^{2}$ - by means of the productive suffix *-no- (de Vaan 2008: 358-359). This paper argues for and introduces a regular sound law, which can be called the magnus rule.

## 2. The regular distribution of reflexes in the Indo-European languages

The following subgroups belonging to the Indo-European family preserve the original vowel ${ }^{*} e$ in the Proto-Indo-European nominal root $*_{m e g} h_{2^{-}}$'great, large':

### 2.1. Anatolian

Hitt. mekkiš adj. 'much, many, numerous', mekki adv. 'greatly, much, in large numbers, very'; Luw. maiaš adj. 'much, many' (Kloekhorst 2007: 661662).

### 2.2. Hellenic

Gk. $\mu \varepsilon ́ \gamma \alpha \varsigma, \mu \varepsilon \gamma \alpha ́ \lambda \eta, \mu \varepsilon ́ \gamma \alpha$ adj. 'great, big, large'; $\mu \varepsilon \gamma \alpha i ́ \rho \omega$ vb. 'to look on a thing as too great; to grudge, envy, refuse' and numerous derivatives (Frisk 1962: 189-190; Chantraine 1974: 674-675; Beekes 2010: 917-918).

### 2.3. Armenian

Arm. mec adj. 'great, big, large', mecarem 'to honour, to esteem highly' (Martirosyan 2009: 458-460).

### 2.4. Germanic

ON. mjok adv. 'much' (< PG. *meku-); Goth. mikils adj. 'large, great, much', ON. mikill adj. ‘id.', Far. mikil adj. 'id.', Elfd. mikkel adj. ‘id.', OE. micel adj. 'id.', MDu. mekel adj. 'id.', OSax. mikil adj. 'id.', OHG. mihhil adj. ‘id.', MHG. michel adj. 'id.' (< PG. *mekilaz adj. 'large, great, much') (Kroonen 2013: 361-362).

Other Indo-European languages, which preserve the vocalic opposition between IE. ${ }^{*} e,{ }^{*} o$ and $* a$, seem to document a secondary nominal root ${ }^{*} m a g$ $\left(<\right.$ PIE. ${ }^{*}$ mégh $_{2_{2}}$ ). Let us quote some representative examples:

### 2.5. Celtic

OIr. maige adj. 'great' (< PC. *magios vs. PIE. *mégh ${ }_{2}-\underset{1}{ }$ os $)$; MIr. mál m. 'noble, prince', MW. mael m. 'chieftain, lord' (< PC. *maglos vs. PIE. *mégh $2^{-}$ los); MIr. maglorg f. 'mace, club' (< PC. *mag-lorg $\bar{a} \mathrm{f}$. 'great stick') and so on. The variant *meg- is completely absent in the Celtic languages (Pedersen 1909: 96; Matasović 2009: 252-253).

### 2.6. Italic

Lat. magnus adj. 'great' (< PIt. *măgnos vs. PIE. *méĝh $\left.{ }_{2}-n o s\right)$; Lat. māiōr, māius adj. comp. 'greater, larger' (< PIt. *măgiōs-, *măgiŏs- vs. PIE. *mégh $2^{-}$ ios-); OLat. maxumus, Lat. maximus superlat. 'greatest, largest' etc. (Muller 1926: 250). There are no traces of an alternative variant *meg- in the Italic languages.

### 2.7. Tocharian

Toch. A māk, Toch. B māka adj. 'many, much', adv. 'very, much' (< CToch. *măkă vs. PIE. *méĝg $h_{2}$ ). It is stressed that "when vocalic all PIE laryngeals"
yielded Tocharian $\bar{a}$ in word initial position (Adams 1988: 18). The Tocharian languages unanimously show $a$-Umlaut (Ringe 1996: 161). The primitive $e$-vocalism is not attested (Adams 2013: 479-480).

The situation in the Paleo-Balkan languages including Albanian, as well as in the Balto-Slavic ones, is unclear for two reasons. Firstly, all the languages introduced a secondary opposition between the vowels ${ }^{*} e$ and $* a$, replacing the IndoEuropean triple opposition between ${ }^{*} e,{ }^{*} o$ and $* a$. In other words, it is extremely difficult to show whether Albanian $* a$, Baltic $*_{a}$ and Slavic $*_{o}$ represent a secondary vocalism *a or the primitive apophonic vowel *o. Secondly, reflexes in the Proto-Indo-European nominal root * $m e \hat{g} h_{2^{-}}$'great, large' are on occasion either completely lost (as in Slavic) or highly uncertain (as in Baltic).

### 2.8. Albanian

Alb. madh adj. 'big, large, tall; great, grand'; madhështí f. 'grandeur', pej. 'conceit, conceitedness, pomposity'; madho 'to get bigger, grow larger, grow up; to grow in esteem' (Newmark 1998: 483). According to the traditional position, the irregular $a$-vocalism in Albanian "may be explained by an unusual reduction" (Orel 1998: 240).

### 2.9. Baltic

Lith. mãzzas adj. 'small, little, not large', Latv. mazs adj. 'small, scanty'; Yatv. maz adj. 'small’; OPrus. ni massais adv. 'no less’ (< PB. *mažas) (Zinkevičius 1992: 115; Smoczyński 2018: 769-770). The traditional etymology explains the Baltic forms in question as antonymised reflexes of PIE. *me $\hat{g} h_{2}-S$ adj. 'great, large'. The reason for this alleged process of antonymisation is uncertain. Wojciech Smoczyński (2018: 769) believes that the meaning 'small, little' was caused by an ironic use of the Indo-European adjective for 'great, large, ${ }^{1}$. Nevertheless, he has reconstructed the Proto-Indo-European archetype of *mogh ${ }_{2}-\dot{o}-s$ (Smoczyński 2018: 769). It is not impossible, however, that the root $a$-vocalism in Common Baltic represents a secondary vowel *a, according to the so-called magnus rule. In fact, the secondary $a$-vocalism can be securely suggested on the basis of vroddhi derivatives, e.g. Lith. mõžis, -io m. 'small quantity’ (< PB. *māžjas), also observed in the tautological compound mãžmožis m. 'trinket, trifle, detail, bagatelle' (Smoczyński 2018: 825).

[^0]
### 2.10. Slavic

There is no obvious trace of the nominal root *megh $2_{2^{-}}$'great, large' in the East, West or South Slavic languages.

It is a well-known fact that the Indo-Iranian languages demonstrate one exclusive vowel $* a$, which reflects PIE. ${ }^{*} e,^{*} o$ and $* a$. This is why Indo-Iranian lexical data cannot be used in our discussion on the origin of the secondary vowel $* a$ in the nominal root ${ }^{*} m e \hat{g} h_{2^{-}}$'great, large'. The following Indo-Iranian examples display numerous cognates in other Indo-European languages.

### 2.11. Indo-Aryan

Ved. máhi adv. 'greatly, very, exceedingly, much' (= Gk. $\mu \varepsilon ́ \gamma \alpha$ adv., Hitt. $m e k k i ~ a d v ., ~ T o c h . ~ B ~ m a ̄ k a ~ a d v.) ; ~ V e d . ~ m a h a ́ n t-~ a d j . ~ ' g r e a t, ~ l a r g e, ~ b i g, ~ h u g e, ~$ ample, extensive, long, abundant, numerous, considerable, important, high, eminent', superlat. máhiṣtha- 'greatest, largest' (= Av. mazišta-, Gk. $\mu \varepsilon ́ \gamma ı \sigma \tau \circ \varsigma)$; Ved. máhas- n. 'greatness, might, power, glory' (= Av. mazah-; OIr. mag, W. ma-, Gaul. -magus); Ved. mahí- f. 'the earth, space' (= Lat. Māia f. 'a Roman Earth-goddess') and so on.

### 2.12. Iranian

Av. mazant- adj. 'great' (= Ved. mahánt-), comp. mazyah- 'greater', superlat. mazišta- 'greatest'; Av. mazah- n. 'greatness', mazan- 'great' (= MW. maon), Kurd. mazin 'big, great, old', Bal. mazan 'great, big, high' and so on (Edelman 2015: 313-316).

It cannot be excluded, however, that the so-called magnus rule appeared in the Indo-Iranian languages as well. It is more than conceivable that the laryngeal $a$-Umlaut, described here tentatively as the magnus rule, must have been a first step towards introducing a phonological system with one basic vowel [a] in IndoIranian.

## 3. Proto-Indo-European formations derived from the nominal root ${ }^{\boldsymbol{m}} \boldsymbol{m e g} h_{2^{-}}$

In this part of my paper, I would like to review all the hypothetical Proto-Indo-European archetypes beginning with PIE. * $m e \hat{g} h_{2^{-}}$, which can be reconstructed on the basis of the lexical data attested in the descendant IndoEuropean languages. Of course, I have taken into account both probable and theoretically possible derivatives from the original root ${ }^{*} m e \hat{g} h_{2}$.

### 3.1. Basic adverb

PIE. *mégh $h_{2}$ or better *mégh $h_{2}$ adv. 'greatly, very, much, many ${ }^{\prime 2}$ : The original $e$-vocalism is regularly preserved in Gk. $\mu \varepsilon ́ \gamma \alpha$ adv. 'much, many' and Hitt. mekki adv. 'greatly, much, in large numbers, very' (Kloekhorst 2007: 662), whereas Toch. B māka adv. 'very, much' (< CToch. *máka) demonstrates a secondary $a$-vowel instead of $* e$ taken from the laryngeal $* h_{2}$ of the next syllable. Also Ved. máhi adv. 'greatly, very, exceedingly, much' contains the secondary vowel *a (vs. PIE. *e), as well as the secondary aspiration (OInd. $h<{ }^{\prime} \hat{g}^{h}<{ }^{*} \hat{g}+* h_{2}$ as the effect of the laryngeal influence on the voiced palatal stop ${ }^{*} \hat{g}$ ). The attestation in four different subgroups firmly documents a very archaic status of the analysed adverb in Proto-Indo-European. See additionally, Lith. màž adv. 'little, not much, somewhat, almost; at least’ (Smoczyński 2018: 769, s.v. màž).

### 3.2. Basic adjective

PIE. *mégh ${ }_{2} s$ or better ${ }^{*}$ még $h_{2} s$ adj. 'great, large': Arm. mec adj. ( $a$-stem) 'great', instr. mecaw; Gk. $\mu \varepsilon ́ \gamma \alpha \varsigma$ adj. 'great, big, large'; Hitt. mekkiš adj. ( $i$-stem) 'much, many' ${ }^{3}$. The $a$-Umlaut is attested by Alb. madh adj. 'great' and Toch. B mäka adj. 'many, much', while the postulated magnus rule appears to be confirmed in the Baltic adjectives for 'small' (cf. Lith. mãǎas adj. 'small, little', Latv. mazs adj. 'id.'; Yatv. maz adj. 'small'), as long as they changed the original meaning 'great, large' as the result of following an oppositional contradistinction. The lexical material is firmly documented in six Indo-European subgroups ${ }^{4}$. Note additionally that the Middle Irish noun maglorg f. 'mace, club' ( < PC. *mag-lorgā f. 'great stick', as if from *megA-lorgā) appears to contain the primitive adjective ${ }^{*} m e ́ g h h_{2} s$.

[^1]
### 3.3. Terms for '(great) earth' or 'earth-goddess'

PIE. *megh $h_{2}-i h_{2}-\mathrm{f}$. 'earth, space' (as 'a great world, greatness', see additionally Sect. 3.9. PIE. * ${ }^{\prime}$ égh $h_{2}$-os- n. 'greatness, a great area, plain'): Ved. mahí l . 'the earth, space' (orig. 'the great world'), Latin theonym Māia f. 'the Roman earth-goddess, known as Vulcanus' wife and Mercurius' mother' $\left(<{ }^{*}\right.$ Magia $<{ }^{*}$ MegAiA). The Proto-Indo-European protoform is commonly reconstructed, though its evidence is relatively weak (attested in two languages only), whereas the Latin and Old Indic forms unanimously attest the secondary $a$-vowel.

### 3.4. The -io-stem adjective

PIE. *mégh $h_{2}$-io-s adj. (o-stem) 'great, large': This archetype is attested in the western periphery, cf. MIr. maige adj. 'great', Gaul. PN Magios (Matasović 2009: 253); Osc. PN Maiius (dat. sg. Maiiúú); Lat. Māius m. 'May’, deus Maius 'a by-name of Iovis', literally 'great god' (< PIt. *magios $<$ *magAios $<$ *megAios < PIE. *megh $\left.h_{2}-\mathrm{i} o-s\right)$. The laryngeal $a$-Umlaut is clearly established in the Italo-Celtic languages, as well as by Lith. mõžis, -io m. 'small quantity' (as if from PB. *māžjas < *mažHjas < PIE. *megh $h_{2}$-io-s). It is not impossible that Luw. maiaš adj. 'much, many' (Kloekhorst 2007: 662) and Skt. mahya- adj. 'highly honoured' (Monier-Williams 1999: 803) belong here as well.

### 3.5. The comparative degree

PIE. *mégh ${ }_{2}$-ios- adj. comp. 'greater, larger': The Greek forms of the comparative degree (e.g. Myc. Gk. $m e-z o-a_{2}$, Att. $\mu \varepsilon i \zeta \omega v$ and so on) preserve the primitive root vowel $* e$. It is worth emphasizing that the original laryngeal is lost before PIE. *i in Ancient Greek and most Indo-European languages according to Pinault's law (Pinault 1982: 265-272; Byrd 2017: 2065). The secondary $a$-vocalism is attested not only in Latin māior, māius adj. comp. 'greater, larger' (Muller 1926: 250), but also in Skt. mahīyas- adj. comp. 'greater, mightier, stronger' and Av. mazyah- adj. 'greater'.

### 3.6. The superlative degree

PIE. *még $h_{2}-i s-t h o-s$ adj. superlat. 'the greatest, the largest': Gk. $\mu \varepsilon ́ \gamma \iota \sigma \tau o \varsigma$ 'id.' is formally opposed to the Indo-Iranian equivalents presenting a root $a$-vocalism, cf. Ved. máhiṣṭha-superlat. 'the greatest' and Av. mazišta- superlat. 'id.' (Rix 1992: 168). The above reconstruction is commonly accepted. Moreover, there is clear evidence that the Latin noun magister m. (o-stem)
'master, chief, head, leader, director, conductor' (cf. also Umbr. mestru adj. f. 'bigger') derives from the Proto-Indo-European superlative form *mégh $h_{2}$ isthos by means of the equative suffix *-eros (frequently also *-teros). The original meaning can be reconstructed as 'a person who is equal to the greatest'.

### 3.7. Nominal formations with the suffix -lo-

PIE. *megh ${ }_{2}$-lo-s adj. 'great, large' (Mann 1984/87: 744): Gk. $\mu \varepsilon \gamma \alpha \lambda 0-\mathrm{adj}$. 'great' (the alternative variant of the Greek adjective for 'great, large', frequently used in oblique cases and derivatives, as well as in feminine forms like $\left.\mu \varepsilon \gamma \alpha{ }^{\prime} \lambda \eta\right)^{5}$. While the Germanic forms (e.g. Goth. mikils adj. 'large, great, much', OE. micel adj. 'id.' < PG. *mekilaz) demonstrate a vocalic assimilation $e-a>e-e^{6}$, the laryngeal $a$-Umlaut is plainly apparent in the Celtic vocabulary: MIr. mál m. 'noble, prince'; MW. mael m. 'chieftain, lord' ( $<\mathrm{PC}$. *maglos $<$ *magAlos < *megAlos < *megh $h_{2}$ los 'great person'), as well as the Celtic onomastics, e.g. Gaul. PN Magalos, -maglus, Ogam PN Cuno-magli (gen. sg.); OBryt. PN Maglo-cune (= MW. PN Mael-gun); MW. PN Broch-fael ( $<$ *Brocco-maglos), MBret. PN Tier-mael (Matasović 2009: 252-253). See also Skt. (lex.) mahira- m. 'the sun', originally 'large object' (Monier-Williams 1999: 803), if OInd. -ra- derives from PIE. *-lo-.

### 3.8. Abstract n-stem nouns

PIE. *megh $h_{2}$-ón- m. ( $n$-stem) 'greatness; great man': Ved. mahánn. 'greatness, might, power, abundance' (attested only in instr. sg. mahnā and once instr. pl. mahabhih); Av. mazan- m. 'greatness'; MW. maon m. pl. 'the great and noble men / die Großen' (< PC. *magón-es). Moreover, there is a possible Celto-Indo-Iranian isogloss demonstrating the secondary vowel $* a$ in the root.

### 3.9. Abstract es-stem nouns

PIE. *mégh $h_{2}-o s-\mathrm{n}$. (es-stem) 'greatness, a great area, plain'. Only the secondary $a$-vowel is attested in the Celtic and Indo-Iranian languages, cf. Ved. máhas- n. 'greatness, might, power, glory' (Monier-Williams 1999: 794), Av. mazah- n. 'greatness'; OIr. mag n. 'plain, field', Bret. ma 'place’ (< PC. *magos

[^2]n. 'a great area, plain'), MW. -ma, Corn. -ma and OBret. $-m a$ in place-names, Gaul. -magus (e.g. Noviomagus, Rigomagus). The Celtic languages also show the derived noun *mages-tu- m. 'field': MW. maes, Bret. maes 'id.' (Matasović 2009: 253).

### 3.10. Great woman

PIE. *mégh $2_{2^{-s-i}} h_{2^{-}} /$méǵgh $_{2^{-}-s-e h_{2^{-}}}$f. ( $\bar{\imath}$-stem or $\bar{a}$-stem) 'a great woman': Ved. máhiṣī- f. 'any woman of high rank, esp. the first or consecrated wife of a king; any queen'; Pa. mahesī- f. 'chief wife', Pk. mahesī- f. 'king's chief wife', Si. mehesi f. 'queen' (Monier-Williams 1999: 803; Turner 1966: 573); Khot. mijṣe, majṣye f. 'woman, wife’ (< Iran. *mazišī- f.; Bailey 1979: 331; Edelman 2015: 315), Pashto māǎō f. 'maternal aunt' (< Iran. *mazišā- f.). In all probability, the Baltic nouns for 'an honoured woman', e.g. Lith. móša f. 'husband's sister, sister-in-law', Latv. mãsa f. 'sister', OPruss. moazo 'mother's sister, aunt, gl. Mum', derive from PB. *máãžā f. and PIE. *mégh $2_{2}$ $s$-eh $2^{-}$'a great woman' (Witczak 2004: 136). See also Alb. madhe f. 'grandmother', originally 'great woman' (Newmark 1998: 483). All the reflexes show the secondary root vowel $* a$.

Other possible Proto-Indo-European prototypes seem less convincing since they arise on the basis of theoretical considerations:

### 3.11. Possible is-stem derivatives

PIE. *mégh $h_{2}$-is- can be postulated on the basis of Lat. magis adv. 'more', Osc. mais adv. 'id.' (Muller 1926: 250; Meiser 2008: 155) and Skt. mahiṣa- adj. 'great, powerful', as well as the superlative degree *mégh $h_{2}$-is-thos (see Sect. 3.6) and the comparative one (see Sect. 3.5).

### 3.12. Derivative formations with the suffix -no-

PIE. *me $\hat{g} \hat{h}_{2}-n o-s$ adj. 'great, large': It is attested not only in Lat. magnus ‘id.' (Muller 1926: 250), Ved. (RV) mahína- adj. 'great, mighty’ (MonierWilliams 1999: 803), Parth. mzn 'great, old' and Kurd. mazin 'big, great, old’ (Edelman 2015: 314), but also in the Lusitanian personal name Maganus (of Celtic or Lusitanian origin) (Prósper 2016: 32, 94) ${ }^{7}$. The archaic character of the derivative in *-no- seems relatively certain.

[^3]
### 3.13. Factitive Verb

PIE. *mégh ${ }_{2}-r_{0}$ - vb. 'to regard as great; to esteem highly' (Mann 1984/87: 745; Wodtko, Irslinger, Schneider 2008: 469) can be reconstructed based on the Greek-Albanian-Armenian lexical isogloss (of uncertain antiquity), cf. Gk. $\mu \varepsilon \gamma \alpha i \rho \omega$ 'to look on a thing as too great; to grudge, envy, refuse' (orig. 'to regard as too great' < 'to regard as great'); Arm. mecarem 'to honour, to esteem highly'; Alb. madhëroj 'to elevate to a higher position, promote; to exalt' (Newmark 1998: 483). Robert Beekes (2010: 917) correctly stresses that the Greek verb is formally identical with the Armenian one, "except for the yod-derivation".

### 3.14. Derivatives with the suffix -ro-

PIE. *mégh ${ }_{2}$-ro-m n . 'a great space': Gk. $\mu \varepsilon ́ \gamma \alpha \rho o v \mathrm{n}$. 'big hall, large room, the inner space of a temple', pl. 'big house, palace'. See also Skt. (lex.) mahiram . 'the sun' (literally 'great object'). The Greek term in question is commonly treated as an isolated noun of uncertain origin or even "a technical loan from the [Mediterranean] substrate, perhaps adapted to $\mu \varepsilon ́ \gamma \alpha$ " (Beekes 2010: 917).

### 3.15. Italic superlatives

PIE. *mégh $h_{2}$-smHo-s adj. superlat. 'greatest': OLat. maxumus, Lat. māxĭmus superlat. 'greatest, largest' (as if from Proto-Latin *megAsomos), Osc. maimas 'maximae'. Probably a purely Italic innovation.

### 3.16. North Indo-European u-stem adverbs

PIE. *me ${ }^{*} h_{2} u$ adv. 'much'. It is attested only in some Northern IndoEuropean languages, cf. ON. mjok adv. 'much', Icel. mjög adv. 'id.', Elfd. mjog adj. 'rather' (< PG. *meku adv.); Lith. pa-mažù adv. 'little by little, slowly' (Smoczyński 2018: 770). According to Guus Kroonen (2013: 362), the North Germanic adverb represents a secondary derivative created in analogy to ON. fjol adv. 'many' (< PG. *felu).

My tentative hypothesis is presented here on the basis of the well-known root *me $\hat{g} h_{2^{-}}$'great, large', which is broadly distributed in all descendant IndoEuropean subgroups, except the Slavic one (Mallory, Adams 2008: 97, 319). This nominal root creates, however, as many as ten (or more) different Proto-Indo-European archetypes (see Sect. 3.1-3.16). In other words, the lexical data, used in my paper, are strong and firmly established. A subsequent series of four papers intends to extend the research indicated in this present
article into different Proto-Indo-European roots (or archetypes) and demonstrate step by step that the magnus rule operates in Celtic, Italic, Tocharian and Baltic.

## 4. Conclusions

The detailed analysis of the nominal root $*^{m e} \hat{g h}_{2^{-}}$'great, large' and its numerous derivatives, attested in languages descending from Proto-IndoEuropean, leads to the following conclusions:

The Latin $a$-vocalism in the sizeable family of words, derived from PIE. *megh $2^{-}$(see Lat. magnus adj. 'great, large', comp. māior, māius 'greater, larger', superlat. maximus 'greatest, largest', magis adv. 'more', magister m . 'master, chief, head, leader, director, conductor' and so on), evolves from the influence of the lost laryngeal $* h_{2}$.

The postulated magnus rule, proposed for the first time in my paper, explains the secondary $a$-vocalism in Italo-Celtic, Tocharian, Albanian, Baltic and IndoIranian as a regular effect, caused by the laryngeal phoneme $* h_{2}$ (extensively attested in the next syllable).

The original vocalism ${ }^{*} e$ is clearly preserved and demonstrated only in Hittite, Greek, Armenian and Germanic (see Sect. 2.1-2.4).

The laryngeal $a$-Umlaut, described here as the magnus rule, appears in Italic, Celtic, Tocharian, Albanian, Baltic (see Sect. 2.5-2.9), as well as in Indo-Aryan and Iranian (see Sect. 2.11-2.12). There is a strong case that no other explanation can be accepted for twofold reflexes of the discussed root.

There is no lexical evidence for the nominal root ${ }^{*} m e \hat{g} h_{2}$ - in the Slavic languages (see Sect. 2.10).

The lexical data, attested in the Indo-European languages, allow for the reconstruction of the following homogenous archetypes: PIE. *mégh $h_{2}$ adv. 'greatly, very, much, many' (see Sect. 3.1); PIE. *mégh ${ }_{2} s$ adj. 'great, large' (see Sect. 3.2); PIE. *megh $h_{2}-i h_{2}-$ f. 'earth, space' (see Sect. 3.3); PIE. *méĝg $h_{2}$ io-s adj. (o-stem) 'great, large' (see Sect. 3.4); PIE. *méĝh2-ios- adj. comp. 'greater, larger' (see Sect. 3.5); PIE. *mégh $h_{2}-i s-t h o-s$ adj. superlat. 'the greatest, the largest' (see Sect. 3.6); PIE. *megh $h_{2}$-lo-s adj. 'great, large' (see Sect. 3.7); PIE. *megh ${ }_{2}$-ón- m. 'greatness; great man’ (see Sect. 3.8); PIE. *mégh $h_{2}$ os- n. (esstem) 'greatness, a great area, plain' (see Sect. 3.9); PIE. *meĝ'h ${ }_{2}-n o-s$ adj. 'great, large' (see Sect. 3.12) and so on.

Some diachronists suggest the doubtful existence of hundreds of parallel derivatives ("parallele Ableitungen"; Wodtko, Irslinger, Schneider 2008: 470) in the Indo-European languages, whereas the present explanation outlined here for the observed phenomenon offers an easy method for reconstructing simple and homogenous protoforms in Proto-Indo-European.

It is improbable that another explanation for the root $a$-vocalism, confirmed in numerous Indo-European languages, is plausible for a laryngeal $a$-Umlaut.


#### Abstract

Abbreviations:

Alb.: Albanian; Arm.: Armenian; Att.: Attic dialect of Ancient Greek; Av.: Avestan; Bal.: Balochi; Bret.: Breton; Corn.: Cornish; CToch.: Common Tocharian; Elfd.: Elfdalian; Far.: Faroese; FU.: Finno-Ugric; Gaul.: Gaulish; Gk.: Greek; Goth.: Gothic; Hitt.: Hittite; Hom. Gk.: Homeric (epic) dialect of Ancient Greek; Icel.: Icelandic; IE.: Indo-European; Iran.: Iranian; Khot.: Khotan Saka; Kurd.: Kurdish; Lat.: Latin; Latv.: Latvian; Lith.: Lithuanian; Luw.: Luwian; MBret.: Middle Bretonic; MDu.: Middle Dutch; MHG.: Middle High German; MIr.: Middle Irish; Mod. Gk.: Modern Greek; MW.: Middle Welsh; Myc. Gk.: Mycenaean Greek; OBret.: Old Breton; OBryt.: Old Bryttonic; OE.: Old English; OHG.: Old High German; OInd.: Old Indic; OIr.: Old Irish; OLat.: Old Latin; ON.: Old Nordic; OPrus.: Old Prussian; OSax.: Old Saxon; Osc.: Oscan; Ost.: Ostyak; Pa.: Pali; PB.: Proto-Baltic; PC.: Proto-Celtic; PG.: Proto-Germanic; PIE.: Proto-Indo-European; PIt.: Proto-Italic; Pk.: Prakrit; Si.: Singhalese; Skt.: Sanskrit; Toch. A: Tocharian A (East Tocharian); Toch. B: Tocharian B (West Tocharian); Ugr. - Ugric; Umbr.: Umbrian; Ved.: Vedic; W.: Welsh; Yatv.: Yatvingian.


## References:

Adams. D.Q. 1988. Tocharian Historical Phonology and Morphology. New Haven, Co.: American Oriental Society.
Adams, D.Q. 2013. A Dictionary of Tocharian B. Amsterdam/New York: Rodopi.
Bailey, H.W. 1979. Dictionary of Khotan Saka. Cambridge: Cambridge University Press.
Beekes, R. 2010. Etymological Dictionary of Greek. Vol. II. Leiden/Boston: Brill. Byrd, A.M. 2017. The Phonology of Proto-Indo-European. In J. Klein, B. Joseph, M. Fritz (eds.), Comparative and Historical Linguistics. Vol. III, 2056-2079. Boston: De Gruyter Mouton.
Chantraine, P. 1974. Dictionnaire étymologique de la langue grecque. Histoire des mots. Vol. III. Paris: Klincksieck.
de Vaan, M. 2008. Etymological Dictionary of Latin and the Other Italic Languages. Leiden/Boston: Brill.
Edelman, D.I. 2015. Etymological Dictionary of the Iranian Languages. Vol. V. Moskva: Nauka - Vostochnaya Literatura.
Frisk, H. 1962. Griechisches etymologisches Wörterbuch. Vol. II. Heidelberg: Winter.

Höfler, S. 2020. Vedic mahá- 'large' and Lithuanian mãžas 'small'. The emphatic Reading of Possessive Derivatives. In L. Repanšek, H. Bichlmeier, V. Sadovski (eds.), Vácāmsi miśrā krṇavāmahai. Proceedings of the International Conference of the Society for Indo-European Studies and IWoBA XII, Ljubljana 4-7 June 2019, celebrating one hundred years of Indo-European comparative studies at the University of Ljubljana, 285-292. Hamburg: Baar Verlag.
Kim, R. 2012. Unus testis, unicus testis? The ablaut of root aorists in Tocharian and Indo-European. In H.C. Melchert (ed.), The Indo-European Verb: Proceedings of the Conference of the Society for Indo-European Studies, Los Angeles 13-15 September 2010, 137-149. Wiesbaden: Dr Ludwig Reichert Verlag.
Kloekhorst, A. 2007, Etymological Dictionary of the Hittite Inherited Lexicon. Leiden/Boston: Brill.
Kroonen, G. 2013. Etymological Dictionary of Proto-Germanic. Leiden/Boston: Brill.
Leumann, M. 1977. Lateinische Grammatik. München: C.H.Beck'sche Verlagsbuchhandlung.
Mallory, J.P., D.Q. Adams 1997. Encyclopedia of Indo-European Culture. London/ Chicago: Fitzroy Dearborn Publishers.
Mallory, J.P., D.Q. Adams 2008. The Oxford Introduction to Proto-Indo-European and the Proto-Indo-European World. Oxford: Oxford University Press.
Mann, S.E. 1984/87. An Indo-European Comparative Dictionary. Hamburg: Helmut Buske Verlag.
Martirosyan, H.K. 2009. Etymological Dictionary of the Armenian Etymological Lexicon. Leiden/Boston: Brill.
Matasović, R. 2009. Etymological Dictionary of Proto-Celtic. Leiden/Boston: Brill.
Mayrhofer, M. 1986. Indogermanische Grammatik. Vol. II: Lautlehre. Heidelberg: Carl Winter Universitätsverlag.
Meiser, G. 2008. Historische Laut- und Formenlehre der Lateinischen Sprache. 2. Auflage. Darmstadt: Wissenschaftliche Buchgesellschaft.

Monier-Williams, M. 1999. A Sanskrit-English Dictionary. Delhi: Motilal Banarsidass Publishers.
Muller, F. 1926. Altitalisches Wörterbuch. Göttingen: Vandenhoeck \& Ruprecht.
Newmark, L. 1999. Albanian-English Dictionary. Oxford: Oxford University Press.
Orel, V. 1998. Albanian Etymological Dictionary. Leiden/Boston/Köln: Brill.
Orel, V. 2003. A Handbook of Germanic Etymology. Leiden/Boston: Brill.
Pedersen, H. 1909. Vergleichende Grammatik der keltischen Sprachen. Vol. I. Göttingen: Vandenhoeck und Ruprecht.
Pinault, G.-J. 1982 A neglected phonetic law: The reduction of the Indo-European laryngeals in internal syllables before yod. In A. Ahlqvist (ed.), Papers from the 5th International Conference on Historical Linguistics, 265-272. Amsterdam: Benjamins.
Pokorny, J. 1959. Indogermanisches etymologisches Wörterbuch. Bern/München: Francke Verlag.

Prósper, B.M. 2016. The Indo-European Names of Central Hispania. A Study in Continental Celtic and Latin Word Formation. Innsbruck: Innsbrucker Beiträge zur Sprachwissenschaft.
Ringe, D. 1996. On the Chronology of Sound Changes in Tocharian. Vol. I: From Proto-Indo-European to Proto-Tocharian. New Haven, Co.: American Oriental Society.
Rix, H. 1992. Historische Grammatik des Griechischen. Laut- und Formenlehre. Darmstadt: Wissenschaftliche Buchgesellschaft.
Schmitt, R. 1967. Dichtung und Dichtersprache in indogermanischer Zeit. Wiesbaden: Otto Harrassowitz.
Schrijver, P. 1991. The Reflexes of the Proto-Indo-European Laryngeals in Latin. Amsterdam/ Atlanta: Rodopi.
Smoczyński, W. 2018. Lithuanian Etymological Dictionary. Berlin: Peter Lang.
Turner, R.L. 1966. A Comparative Dictionary of the Indo-Aryan Languages. London: Oxford University Press.
Weiss. M.L. 2021. Outline of the Historical and Comparative Grammar of Latin. Second Edition. Ann Arbor/New York: Beech Stave Press.
Witczak, K.T. 1995. "Prothetic Vowels" in Hittite and Other Anatolian Languages. In W. Smoczyński (ed.), Analecta Indoeuropaea Cracoviensia Ioannis Safarewicz memoriae dicata, 495-502. Cracoviae: Universitas.
Witczak, K.T. 2004. Old Prussian moazo 'Mother's Sister', mosuco 'Weasel' and Related Words. Baltistica 39(1): 131-139.
Witczak, K.T. 2020. Antonimizacja jako problem diachroniczny [Antonymisation as a diachronic problem]. In K. Wojan (ed.), Wokól pewnego cytatu, 469-474. Warszawa: Bel Studio.
Wodtko, D.S., Irslinger, B., Schneider, C. 2008. Nomina im indogermanischen Lexikon. Heidelberg: Winter.
Zinkevičius, Z. 1992. A Polish-Yatvingian Vocabulary? Linguistic and Oriental Studies from Poznań 1: 99-133.


[^0]:    ${ }^{1}$ A different explanation for this phenomenon is suggested by Höfler (2020: 285-292). It is worth emphasizing that a similar semantic change is attested in the Ugric languages of the Uralic family (FU. *äji ‘great, big, old’> Ugr. *äjs ‘small, young', cf. Ost. äj ‘id.'), see Witczak (2020: 470-471).

[^1]:    ${ }^{2}$ Note that the Hittite vowel $i$ [i] represents a regular reflex of the vocalic sonant *h $h_{2}$ (Witczak 1995: 498-499), thus the Anatolian languages demonstrate not only consonantal variants (Hittite $\underline{\mathrm{h}}$ or $\mathrm{h} h$ ), but also three vocalic variants (Hitt. $a<{ }_{0} h_{1}, i<* h_{2}, u / \varnothing<* h_{3}$ ), like Phrygian and Ancient Greek ( $\varepsilon<*_{h_{1}}, \alpha<* h_{2}, \mathrm{o}<* h_{3}$ ). The vocalic laryngeal *h $h_{2}$ (earlier written as ${ }_{2} \partial_{2}$ ) is rendered as a vowel in most Indo-European languages, especially as $i$ [i] (e.g. in Vedic, Avestan and Hittite) or $a$ [a] (e.g. in Armenian, Ancient Greek, Phrygian and Proto-Tocharian).
    ${ }^{3}$ Vocalic reflexes (cf. Arm. $a$, Gk. $\alpha$ [a], Hitt. i) appear where Indo-Europeanists reconstruct $* h_{2}$ (or * $\partial_{2}$, according to Rix 1992: 162). This is a sufficient reason to treat laryngeals as sonants, even if many linguists argue for their consonantal nature, despite the available lexical evidence. The theory of consonantal anaptyxis rather than direct vocalisation does not explain regularity of reflexes (Hitt. $a$ and Gk. $\varepsilon$ in the case of *h $h_{1}$, vs. Hitt. $i$ and Gk. $\alpha$ in the case of $* h_{2}$ ). I follow these researchers who accept the notion of "Vocalic Laryngeals" (Adams 1988: 18). The problem of the Proto-Indo-European laryngeals has been recently discussed by Byrd (2017: 2063-2066).
    ${ }^{4}$ Note that Gk. (Homeric) $\mu \varepsilon ́ \gamma \alpha \kappa \lambda \varepsilon$ ćos 'great fame / große Ruhm' and Vedic máhi śrávaḥ 'id.' go back to the Proto-Indo-European poetic phrase *mégh ${ }_{2}$ *k'leuros (Schmitt 1967: 77-78; Mayhofer 1986: 138-139).

[^2]:    ${ }^{5}$ See also Mod. Gk. $\mu \varepsilon \gamma \dot{\alpha} \lambda \mathrm{os}$ adj. 'great, large' (Chantraine 1974: 675).
    ${ }^{6}$ A similar development is attested in Hom. Gk. $\mu \varepsilon ́ \gamma \varepsilon \theta$ os n. 'greatness, sublimity' vs. Att. $\mu \dot{\varepsilon} \gamma \alpha \theta$ os n. 'id.' $\leftarrow$ Gk. $\mu \dot{\varepsilon} \gamma \alpha$.

[^3]:    ${ }^{7}$ There is a strong case for the second vowel [a] in the Lusitanian PN Maganus reflecting the vocalisation of the laryngeal sonant $* h_{2}$ under the Indo-European stress.

