

# Could Greek and Italic share a same Indo-European substratum?

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Greek and Latin have developed from their common Proto-Indo-European (PIE) ancestor in distinct ways, resulting in two languages that exhibit very different features, in particular regarding phonology and *Wortbildung*. Moreover, the Greek lexicon has long been recognised for its huge proportion of non-inherited words, among which it is difficult to draw a clear distinction between substrata and loan words. Several of the languages that contributed to shaping the Greek lexicon are Indo-European. Among the Indo-European contributors to the non-inherited Greek lexicon, we tentatively identify a language that shares phonetic and morphological features with substratic elements attested in Italic, and possibly articulatory properties of Latin itself. We shall review five phonetic features of this language: (i) voiceless reflexes of PIE voiced aspirated stops; (ii) the anticipation of nasals resembling *lex-unda* in Latin but generalised to labial stops, such that  $VCnV > VnGV$  with lenition of the consonant; (iii) a velarised /h/ (viz. *l pinguis*) which can trigger an anaptyctic -ǝ- or -ǔ-; (iv) apparent voice alternations that follow similar patterns to the Verner law in Germanic; (v) the metathesis of -r-, such that  $CVrC > CrVC$ . Our study also unveils morphological peculiarities of this language: (a) the frequent use of elsewhere poorly attested labial morphs, leading to nouns of the form *\*CóC-Po-* and adjectives of the form *\*CoC-Pó-*; (b) the frequent use of a prefix *\*eǵ<sup>h</sup>s-* (cf. Lat. *ex-*, Gr. ἐξ-) reflected as a simple *\*s-*; (c) the frequent occurrence of action nouns built with the well-known *\*CóC-no-* pattern.

(i) The connection between non-inherited Lat. *rūtīlus* ‘red’ and the ethonym *Rūtūlī* ‘Rutulians’ is consensual, as is their derivation from PIE *\*h<sub>1</sub>rud<sup>h</sup>-ró-* ‘red’ > Com. It. *\*rūtəló-* ‘id.’ (Szemerényi, 1991:670). Inherited counterparts are Lat. *rūbĕr* ‘red’ (< Com. It. *\*ruθró-*) and Gr. ἐρυθρός ‘red’. As we shall see, this non-inherited correspondence PIE *\*d<sup>h</sup> ~ Lat. t* reflects a substratic treatment of all voiced aspirated consonants as voiceless consonants.

(ii) The case for PIE *\*b<sup>h</sup> > \*p* is illustrated by Gr. πύνδαξ [m.] ‘bottom of a jar’ reflecting *\*pundó-* ‘bottom’ < PIE *\*b<sup>h</sup>ud<sup>h</sup>-nó-* ‘bottom’. More interestingly, this word is the result of a treatment akin to *lex-unda* in Latin (Meiser, 1998:121), i.e. *\*-T-n- > Lat. -nd-* (with voicing; T = *\*t, \*d* or *\*d<sup>h</sup>*). The inherited Latin reflex of PIE *\*b<sup>h</sup>ud<sup>h</sup>-nó-*, namely *fundus* ‘bottom’, provides a parallel for a derivation of the form PIE *\*b<sup>h</sup>ud<sup>h</sup>-nó-* > *\*put-nó-* > *\*pundó-*, hence Gr. πύνδαξ. Contrarily to the *lex-unda*, this treatment applies in our substratum language to any stop, as illustrated by Gr. τύμβος ‘tomb’ from a substratic *\*túmbo-* < PIE *\*d<sup>h</sup>úb<sup>h</sup>-no-* m. ‘depth’, derived from PIE *\*d<sup>h</sup>ub<sup>h</sup>-nó-* ‘deep’ based on the same PIE root *\*d<sup>h</sup>eub<sup>h</sup>-* as above. A cognate of this substratic *\*túmbo-* would be Gaul. *\*dubno-* ‘underworld’ attested in compounds such as the PN *Dubno-rix*.

(iii) Several non-inherited Greek words seem to contain anaptyctic vowels -ǝ- or -ǔ-, especially next to an *l*. It could reflect a velarised articulation /h/ when the *l* is the first consonant in a consonant cluster, as is precisely the case in Latin. Let us consider for example σκόλοψ [m.] ‘pointed pole, palisade, prickle’ < *\*skótǝp-* < *\*skótǝp-* < PIE *\*(s)kól-p-* < *\*(s)kól(h<sub>2</sub>)-p-* (with ‘Saussure-effect’) from a PIE root *\*(s)kelh<sub>2</sub>-* ‘to chop (wood)’<sup>1</sup> (Rix *et al.* 2001:322) and with a known although poorly attested labial morph.<sup>2</sup> Σκόλοψ can be related to the Hesychian glosses σκόλοφρον· θρανίον ‘bench’ and σκολύψαι· κολούσαι, κολοδῶσαι ‘cut short, mutilate’ < *\*skótǝp-* < PIE *\*(s)kól-p-*.

(iv) Gr. κολοβός ‘mutilated’ is formally and semantically close to this series. We assume a substratum form *\*kol(ǝ)bós* < PIE *\*(s)kol-p-ó-* < *\*(s)kol(h<sub>2</sub>)-p-ó-*. It exhibits two striking differences with previous forms: the labial morph is voiced and the stress is word-final. We interpret it as the outcome of a Verner-like treatment, i.e. a lenition of all voiceless stops in pre-tonic positions.<sup>3</sup> Also Gr. καλύβη [f.] ‘hut, cabin’ (var. καλυβός, κολυβός [m.]), which is difficult to separate from PIE *\*kel-* ‘to cover’ (cf. Lat. *oc-cūl-ĕrĕ* ‘hide’ < PIE *\*kél-elo-*), points to a substratic adjective *\*kǝtǝbó-* ‘covered’ < PIE *\*k<sub>l</sub>-b<sup>h</sup>-ó-* ‘id.’ that exhibits this Verner-like effect. Next to this adjective existed a feminine PIE substantive *\*k<sub>l</sub>-b<sup>h</sup>-eh<sub>2</sub>* ‘covering’ reflected in our substratum language, with a fortition in post-tonic position, as *\*kǝtǝppā* (maybe *\*kǝtǝp<sup>h</sup>ā*). It has been borrowed in Proto-Romance as

<sup>1</sup> This root is duplicated in the LIV<sup>2</sup> (Rix *et al.*, 2001) as *\*kelh<sub>2</sub>-* ‘chop wood’ (p. 350) and *\*skelH-* ‘id.’ (p. 553).

<sup>2</sup> On the same root, cf. Lat. (inherited) *scalpō* ‘scratch, carve’ < Com. It. *\*skǎlǎp-elo-* < PIE *\*sk<sub>l</sub>h<sub>2</sub>-p-elo-*.

<sup>3</sup> According to Pokorny (1959:926), Com. Gmc. *\*χalbāz* ‘half’ (> Go. *halbs*, ON *halfr*) reflects, with the standard Verner effect, a Pre-Proto-Gmc. *\*kolpó-* ‘cut (into two pieces)’ < PIE *\*(s)kol(h<sub>2</sub>)-p-ó-*, which we pose as an indirect source for Gr. κολοβός.

\**kalúppa* ~ \**kalúffa*, reflected by Provençal *caloufo* ‘nut hull’ and Old Occit. *calupa* ‘\*nutshell; boat’, hence Fr. (dial.) *chalouppe* ‘nutshell; boat hull’. A proterocinetic PIE adjective \**kél-u-s* (NOM), \**k<sup>l</sup>l-éu-s* (GEN), \**k<sup>l</sup>l-ú-h<sub>1</sub>* (INSTR) ‘hidden, covered (vel. sim.)’ could produce, via a decasuative *cvi*-like construction based on the instrumental, a PIE form \**k<sup>l</sup>l-u-h<sub>1</sub>-b<sup>h</sup>(u)-ó-* ‘being covered’. Substantivisation via barytonesis would then lead to a substratic \**kálúppo-* ~ \**kálúffo-* ‘covering’ that could be the source of Gr. κέλῦφος [secondary n.] ‘fruit shell, eggshell’. This shows that we are dealing with a *centum* language, as PIE \**k* is reflected by a substratic \**k*.

Other examples of this Verner-like treatment can be found in words derived from PIE root \**d<sup>h</sup>eu<sup>b</sup>h-* ‘sink in(to), go deep’ (Kümmel, 2014, s.v.). We analyse Lat. *Tibēris, -is* [m.] ‘the river Tiber’ < Com. It. \**Tūbris* as reflecting PIE \**d<sup>h</sup>ub<sup>h</sup>-r<sup>i</sup>-* ‘ravine’ (± Szemerényi, 1991:675-681). Another example is non-inherited Lat. *tūbus*<sup>4</sup> (and Proto-Romance \**tūfus*) < Com. It. \**túfo-* ‘underground pipe (for conducting water)’ (Meyer-Lübke, 1935:746) from a substratic \**túppo-* ~ \**túffo-* ‘id.’.

(v) Another phenomenon typical of our substratic language is the metathesis of *-r-*, such that *CVrC* becomes *CrVC*. For example, we explain the Gr. verb στρέφω ‘twist’ (“Pre-Greek” according to Beekes, 2010:1413) as related to the PIE root \**terk<sup>h</sup>-* ‘turn oneself’ (Rix *et al.* 2001:635)<sup>5</sup> inherited as Lat. *torqueō* ‘turn, twist’ from a PIE causative stem \**tork<sup>h</sup>-éj<sup>h</sup>-e/o-*. Apart from the metathesis of the *-r-*, this form exhibits a spurious *s-* which can hardly be accounted for as an *s-mobile*. It could be a reflex of a preverb \**s-* < \**-es* < \**eks-* < PIE \**eg<sup>h</sup>s-*, with a treatment which parallels Vulgar Latin developments (cf. It. *scorrere* ‘flow’ < Lat. *ex-currere* ‘run’). We therefore posit a Post-PIE form \**eks-terk<sup>h</sup>-e/o-* > \*(*e*)*streK<sup>h</sup>-e/o-* borrowed as Com. Gr. \*στρέχ<sup>w</sup>ω > Gr. στρέφω. The Verner-like fortition of \**-k<sup>h</sup>-* as \**χ<sup>w</sup>* > \**φ* rather than \**κ<sup>w</sup>* > \**π* is the same as in Gr. κέλῦφος explained above. A lenited counterpart is found in Gr. στρεβλός ‘turned, twisted’ < Com. Gr. \*στρεγ<sup>w</sup>-λό- from a substratum form \*(*e*)*s-treg<sup>h</sup>-ló-* < Post-PIE \**eks-trek<sup>h</sup>-ló-*. The extended *lex-unda* seen in point (ii) also explains Gr. στρόμβος ‘spinning-top (Ξ 413); whirlwind’, which reflects a substratum form \*(*e*)*stróng<sup>h</sup>-o-* < \*(*e*)*strók<sup>h</sup>-no-* following the PIE \**CóC-no* pattern. Note that the labiovelar is warranted by non-inherited Gr. στρογγύλος ‘round, spherical’, which we analyse as a reflex of Com. Gr. \*στρογγ<sup>w</sup>-υ-λό- ‘id.’ (with paroxytonesis due to Wheeler’s law), derived in Com. Gr. (or in the substrate) from the same thematic stem \*(*e*)*stróng<sup>h</sup>-o-*.

We have unveiled a consistent system of phonetic and morphological common points between one of the IE layers in the non-inherited Greek lexicon and substratic words and influences in Latin and Romance.<sup>6</sup> We conclude with the widespread PIE word \**g<sup>h</sup>órd<sup>h</sup>-o-* ‘fence, enclosure’ which acquired the meaning ‘town’ for example in OCS *gradъ* ‘town’ (cf. also the Phryg. city name *Górdion*). With the well-known characterising suffix \**-on-*, we would expect a development \**g<sup>h</sup>órd<sup>h</sup>ōn* > \**kórtōn* (cf. point (i)) > \**krótōn* (cf. point (v)), which correctly matches the name of the town Κρότων ‘Crotona’ located in Calabria, Southern Italy. Based on this formal, semantic and geographic match, and despite the lack of definitive evidence, we suggest the name “Crotonian” for the IE substratic language reconstructed here.

## REFERENCES

- BEEKES R.S.P. (2010). *Etymological Dictionary of Greek* (2 volumes). Leiden·Boston: Brill.
- MEISER G. (1998). *Historische Laut- und Formenlehre der lateinischen Sprache*. Darmstadt: Wissenschaftliche Buchgesellschaft.
- MEYER-LÜBKE W. (1935), *Romanisches Etymologisches Wörterbuch*. Heidelberg: Winter.
- POKORNY J. (1959). *Indogermanisches Etymologisches Wörterbuch*. Bern·Stuttgart: Francke Verlag.
- RIX H., M. KÜMMELE, T. ZEHNDER, R. LIPP AND B. SCHIRMER (2001), *Lexikon der Indogermanischen Verben*, 2<sup>nd</sup> ed. (LIV<sup>2</sup>). Wiesbaden: Ludwig Reichert Verlag.
- KÜMMELE, M. (2014), *Addenda und Corrigenda zu LIV<sup>2</sup>*. Published online at the following URL: <http://www.indogermanistik.uni-jena.de/dokumente/PDF/liv2add.pdf>.
- SZEMERÉNYI O. (1991). “The development of the Indo-European mediæ aspiratæ in Latin and Italic”, in *Scripta minora. Selected Essays in Indo-European, Greek and Latin*. Innsbruck: IBS, Band 53 (=Volume II), 628-693.

<sup>4</sup> Lat. *tūbus* and Proto-Romance \**tūbus* ~ \**tūfus* < Com. It. \**túfo-* (Meyer-Lübke, 1935:746) reflecting a source word \**tuPo-* derived from zero-grade PIE \**d<sup>h</sup>úb<sup>h</sup>-o-* [m.] ‘ravine’ from PIE \**d<sup>h</sup>ub<sup>h</sup>-ó-* ‘deep.’ This PIE formation would have been inherited as Com. It. \*\**thúfo-* and would appear as Lat. \*\**fūbus*.

<sup>5</sup> It is generally accepted that Gr. στρέφω is akin to the Myc. Gr. *ku-su-to-ro-qa* ‘global sum’, probably for \**ξυν-στροχ<sup>w</sup>á* (cf. Gr. συστροφή ‘density, condensation, gathering, group’). Therefore, an etymology for Gr. στρέφω based on the PIE root \**trep-* ‘turn’ is unlikely, as are *ad hoc* reconstructions of the form PIE †*streb<sup>h</sup>-* or †*streg<sup>h</sup>-* (pace Rix *et al.*, 2001:603 and Kümmel 2001, 2014).

<sup>6</sup> On the Italic side, it corresponds to Szemerényi’s “Siculo-Ausonian” substrate.