On the etymology of Greek ἕλγης and γέλγης ‘garlic’: an Akkadian loanword in Pre-Greek

G. J. Kroonen
Roots of Europe - language, culture and migrations
Institut for Nordiske Studier og Sprogvidenskab
Copenhagen University
Denmark
guus@hum.ku.dk

In the present article, I offer a new etymology for Greek ἕλγης and γέλγης ‘garlic’. I argue that both of these lexical variants were ultimately adopted from Akkadian giddil / gidlu ‘string (of onions or garlic)’, a word with a well-established Semitic etymology. The word was not borrowed from Akkadian directly, however, but only indirectly through the language spoken in Greece and Asia Minor before the arrival of the Indo-European Greeks. The affiliation of this lost language is still hotly debated, but the case of ἕλγης / γέλγης offers a unique insight into its morphological structure and neatly demonstrates its role as an intermediate language between Assyrian in the East and Greek in the West.

At present, most Indo-Europeanists and archaeologists support the hypothesis that the Indo-European language family finds its origins in the pastoralist Yamna culture, an archaeological complex that stretched across the Pontic-Caspian steppes between 3300 and 2500 BCE (Gimbutas 1973; Mallory 1989:183; Anthony 2007:302). The expansion of this culture, which introduced a set of closely related Indo-European dialects into Europe and Asia, is generally assumed to have been triggered by the invention of light, horse-pulled wagons. This technological innovation greatly increased mobility, and thus enabled the Indo-Europeans to establish themselves throughout Eurasia within a relatively short span of time.

As a result of the emigration from the homeland, large parts of Europe and West Asia have since the
beginning of the historical record been dominated by
speakers of Indo-European languages. It is a known fact,
however, that when the Indo-Europeans left their
homeland, and established themselves at different
locations across Eurasia, they did not arrive in terra nullius.
Rather, they settled among indigenous peoples with
dissimilar linguistic and cultural traditions, often
supplanting these cultures in the long run. This is well-
established, for instance, for the Indic tribes, who imposed
themselves on multiple autochthonous cultures of North
West India, most notably a “Para-Munda” population. A
vestige of the cultural interaction with these non-Indo-
European tribes is found in the form of a lexical layer
reminiscent of modern Munda languages in the early
Vedas (cf. Kuiper 1962; Witzel 1999). Words belonging to
this layer can often be isolated on the basis of their un-
Indo-European form.

At the other side of the Indo-European diaspora, in
Ancient Greece, different waves of Hellenic immigrants
similarly grafted themselves onto local societies, the people
of which were later referred to as “Pelagians”. As in the
case of the Indic settlement of Punjab, the linguistic
evidence suggests that these autochthonous inhabitants
left a deep imprint on the Greek lexicon. Again, the words
belonging to this class tend to reveal themselves by their
notoriously un-Indo-European morphology, exhibiting
sound alternations and affixes that did not exist in the
linguistic ancestor that is reconstructed on the basis of the
other Indo-European languages. 1 An up-to-date, though
rather maximalistic analysis of the Pre-Greek material is
now offered by Beekes (2010).

The study of the Pre-Greek lexicon is of great interest
not just to the formation of Greek, but also to the

1The evidence is in disagreement with the idea that the Pre-Greek
substrate belonged to the Anatolian branch of the Indo-European
languages, as has been claimed by e.g. Buck (1926: 26), Palmer (1980: 9-
10) and Finkelberg (2005: 42-64). The fact that Pre-Greek words are
notoriously un-Indo-European in character on both the formal and
semantic level leaves no room for an Anatolian origin, nor for the claim
that “there are no visible traces of non-Indo-European speakers to the
west of the Semitic languages of Syria and to the north of the Egyptian of
Africa” (Finkelberg 2005: 51).
reconstruction of the Pre-Indo-European linguistic situation in the Eastern Mediterranean. Elsewhere, I have drawn attention to the formal variation of Gr. γέλγις, gen. ἰθός/ἰθός ‘garlic’ and the closely related ἄγλις, gen. ἰθός (cf. Hesychius ἄγλιδα · σκόροδα), arguing that it is suggestive of a non-Indo-European origin (Kroonen forthc.). I now think that the word represents a key case in the study of the Pre-Greek substrate language, as it contains a combination of as many as three different non-Indo-European formal features: 1) the aforementioned suffix, 2) the prefix a- and 3) an abnormal ablaut pattern. In the present article, I will elaborate on these features.

First, both ἄγλις and γέλγις contain the suffixes -ίθ- and -ίθ-, which are two different variants of -ίθ-. This suffix, which probably continues *-id- with a nasalized vowel (it seems unlikely, at any rate, that the Greek variation of a theta with a delta presupposes a voiced aspirated stop), was already associated with the Pre-Greek substrate by Kretschmer (1896). It is known to occur in phonetically irregular words with semantic fields that are strongly associated with sedentary Mediterranean culture rather than with a pastoral Indo-European way of life. Such fields are 1) flora and fauna, cf. ἕλμις, gen. ἐλμῶνθος ~ ἐλμυγγος ~ nom.pl. λίμναθες ‘helminth, intestinal worm’, τερεβίνθος ~ τέρμαθος ~ τρέμπαθος ‘turpentine tree’, ιάκωθος ‘hyacinth’, 2) agriculture, cf. ἐρέβινθος ‘chick-pea’, γάλινθοι, γάλιθοι, γέλινθοι, γέρμωνθι ‘id.’, and 3) technical terms (tools, architecture, etc.), cf. ἀσάμωνθος ‘bath tub’, λαβύρινθος ‘labyrinth’, μέμβρα, gen. μερύμθος ~ acc. μέρμυμα ‘string’, πείρα (acc. πείριθα) ‘cart-basket’. This, and the additional fact that the suffix occurs in numerous indigenous toponyms such as Ζώμινθος and Κόρμιθος, is widely assumed to point to a Pre-Greek origin.

A second formal feature that has been ascribed to non-Indo-European influence is the so-called a-prefix. This feature was used by Schrijver (1997) to describe a systematic, but non-Indo-European interchange of initial a- versus zero in a number of conspicuously non-Indo-European lexical doublets. Examples of this interchange are found in all the Indo-European languages of Europe, including Germanic, Italic, Celtic and Greek, cf. 1) OHG amsala ‘blackbird’ < *amsl- : Lat. merula ‘id.’ < *mesal-, 2)
Gr. (á)στραπή ‘lightning’ < *(a)-strp- : (á)στεροπή ‘id.’ < *(a)-sterop-, 3) Gal.-Lat. alauda ‘lark’ < *alaw- : OE lāwerce ‘id.’ < *laiw- and 4) OHG aruz ‘ore’ < *arud- : Lat. raudus ‘id.’ < *raud-. Schrijver therefore supposed that a- was a prefix in the pre-Indo-European substrate language from which these words were borrowed.

Schrijver further noticed that the given examples provide evidence for a systematic vowel reduction in the prefixed forms. This is demonstrated, for instance, by the word for ‘blackbird’, which has a “full grade” in the unprefixed form *mesl-, but a “zero grade” in the prefixed variant *amsl-. Similarly, *raud- ‘ore’ seems to represent the full stem of the prefixed and reduced form *arud-. It can hence be surmized that this vowel reduction resulted from some kind of morphological process in the Pre-Indo-European language. As such, it represents a third important feature that can be used to identify substrate words.

In Kroonen (forthc.), I have argued that both the a-prefix and vowel reduction can be successfully applied to a number of other exclusively European words, including the Greek doublet γέλαγις ~ ἀγάλις. Conventionally, the etymological dictionaries postulate a reduplicated form, i.e. *gel-gl- (Frisk 1, 295) or *ge-gl- (Beekes 2010: 265), in order to explain the form of γέλαγις, but there are several problems with these reconstructions. First, they both make use of the well-established Indo-European morphological mechanism of reduplication, which consists of a repetition of (the initial part of) the root, e.g. *gel-gl- or *ge-gl-. This is problematic, however, because this mechanism is extremely rare in Indo-European nouns, the evidence basically being limited to *bʰe/ibʰr-o- ‘beaver’ and *kʷe-kʷl-o- ‘wheel’. Second, both reconstructions leave the prefixed form ἀγάλις unaccounted for. Proto-Indo-European did not have a prefix *a-. In fact, it probably did not even have an *a phoneme.² The attempt by Pokorny to reconstruct the

²More properly, it is true that PIE did not have one *a, because it actually had two *a’s. Since PIE had only two real vowels, i.e. *e and *o, it would be phonetically more economical if they represented [æ] and [ɔ] rather than Graecocentric [ε] and [ɔ]. In fact, Brugmann’s law, i.e. the Indo-Iranian lengthening of PIE *o to *ā in open syllables, proves that *o must
word as a collective, i.e. *āγλίς < *sm-gl-, is farfetched, because the word does not mean “Ge-knoblauch-e”. Instead, it is semantically identical to γέλγις.

In view of these problems with the present state of reconstruction, it seems preferable to settle the formal variation displayed by this word outside the framework of Indo-European derivational morphology. Assuming that the word is of Pre-Greek origin, the co-existence of āγλίς and γέλγις can neatly be accounted for with the help of Schrijver’s Rule. The form γέλγις, which is widely taken to have developed out of *γέγλις by metathesis, directly points at a “full” stem *ggl-. The variant āγλίς can accordingly be reconstructed as the expected reduced and prefixed stem *a-ggl-. Both of these two root variants further seem to have been combined with the *-id- suffix.

It is interesting to see that Schrijver’s Rule is able to accurately predict the formal variation of this particular substrate word in Greek. The next logical step, of course, would be to see if the validity of the reconstructed Pre-Greek root *ggl- could somehow be tested, so as to make sure that it is not just a hypothetical reconstruction, but, in fact, an actual root in an actual language. One of the ways to achieve this would be to look for possible reminiscences in the ancient non-Indo-European languages of Anatolia, such as Hurrian or Urartian. In this particular case, however, the reconstructed Pre-Greek root *ggl- is more likely to have a parallel in the Semitic languages. To my mind, a possible Semitic connection with āγλίς and γέλγις is extant in the form of Akkadian — or more specifically — Old Babylonian gidlu, frequently written gid(d)il ‘plaited string, plait of onions or garlic’. The word has an undisputed

have been significantly lower than the fronted phoneme *e. This follows from the fact that open vowels are intrinsically longer than high vowels, opening of the lower jaw being more “time-consuming”. When the vocalization of the laryngeals resulted in a new *a phoneme,*[æ] and *[D] were presumably raised in those languages where they did not merge.

4“In Mesopotamia the Sumerian term sum combined with another sign stood for a variety of the genus Allium including onion, leek and shallot while sum itself meant garlic.” (Potts 1997: 64). Other linguistic
Semitic etymology, as it seems to be derived from the root *gdl- ‘to braid’, cf. Hebr. gádil, Aram. gedillá and Arab. gadil ‘braid’ (cf. Gelb 1982: 78). The secondary meaning ‘string of garlic or onions’ is specifically Akkadian. Apparently, the gidlu type of string was used as a standard measure for garlic and onions by the speakers of this language.

Both formally and semantically, there are no real problems with the comparison of Akk. gidlu with Greek γέλγις. Since it is likely, in view of ḫγλίς, that this γέλγις developed out of older *γέγλις by metathesis, as has been claimed before, the similarities with gidlu are considerable enough to allow for such a linkage. The surfacing of -dl- as -γλ- is relatively unproblematic: It has a good parallel in Gr. γλυκός ‘sweet’, which in view of Lat. dulcis ‘id.’ must have developed out of *dłuku-. The development even seems to be attested within the proto-history of Greek itself, Myc. de-re-u-ko generally being regarded as the predecessor of Gr. γλεύκος ‘sweet wine, must’ (Aura Jorro & Adrados 1985: 167). As a result, it becomes possible to reconstruct a Proto-Greek form *γεδλίς, which is sufficiently similar to Akk. gidlu to assume a connection.

The derivational history of the prefixed form ḫγλίς is more intricate. In view of the Akkadian origin of the etymon, it is possible to assume that the a-prefix of this variant was added in Semitic. After all, with its prevalence of triconsonantal roots and its productive ablaut mechanisms, Semitic morphology at least theoretically evidence, too, suggests that the semantic boundaries between the different members of the genus are often fluid, cf. MoE garlic < OE gār-lēac “spear-lee” or Gr. σκόροδον, Alb. hurdhē(rē), Arm. (s)xtor ‘garlic’ vs Oss. sk’uda ‘ransoms’? (Abaev 1996: 218). In Akkadian, it furthermore occurs in combination with šakkum ‘strung’ (Stol 1987: 66).

Ugaritic gdl also means ‘string of garlic’, and is therefore assumed to be a loanword from Akkadian as well (Watson 2004: 121).

Admittedly, Lat. dulcis points to *dulk- rather than *dłuk.

Laconian Ḗλάς ‘seat’ < *sed-leh₂ has medial -dl- to -ll-, but this example is isolated and may be dialectal. In addition, Gr. Ḗλᾶς ‘force-meat, sausage, black-pudding’ has been compared to Lat. allium (see the footnote below), and could perhaps be adduced to support the same change. This comparison, however, is based on the conjectural assumption that the original meaning of Ḗλᾶς was 'garlic sausage'.
On the etymology of Greek āγλίς and γέλγις ‘garlic’

offers the right preconditions for the allomorphy of *a-gdl- ~ *gedl-. Vennemann, an advocate of a “Semitidic” superstrate in Germanic, in fact already earlier assumed that the a-prefix must correspond to the Semitic definite ha-prefix (2003: 818). In this particular case, however, Akkadian offers no direct evidence for such a prefixed form with reduced vocalism. Actually, Akkadian did not have a definite article, and the rise of the element ha- as a definite prefix is usually taken to be a late North West Semitic innovation (cf. Sarna 1996: 279). It therefore seems more plausible, not least in view of the remarkable predictive power of Schrijver’s Rule, that the prefixed form arose in Pre-Greek after the borrowing process. This can be explained by assuming that, when gidlu was borrowed from Akkadian into Pre-Greek, it was incorporated in the Pre-Greek ablaut system, thus giving rise to a “reduced” form *a-gdl-. When the form *a-gdl- was later assimilated by the speakers of primitive Greek, it can have yielded āγλίς in two different ways. Either the dental was lost straightaway in the heavy cluster of this form, or the d was again shifted to g before l, as in the case of γέλγις.

On several different levels, the doublet āγλίς ~ γέλγις turns out to prove key to the study of the Pre-Greek substrate. This follows from the fact that, even in the unlikely event that the a-prefix was added in Semitic itself, the word for ‘garlic’ still reveals an interaction of at least three different language families: 1) Semitic, 2) Pre-Greek and 3) Hellenic. This is evident from the addition of the non-Indo-European and non-Semitic īd-suffix by the speakers of Pre-Greek after its adoption from Akkadian. If, alternatively, the addition of the a-prefix took place in the Pre-Greek substrate — and this seems by far the most probable scenario —, the implications of the Akkadian etymology are even greater. It would provide solid

9 Note that the prefixed variant (corresponding to) Gr. āγλίς must be source of Lat. allium, which has not yet received a satisfactory etymology (cf. De Vaan 2008: 33). However, since the loss of g is not regular before l in Latin, this allium cannot possibly be the direct continuant of *aglē. The alternative would be to consider the possibility of a pre-form *adlē, which according to the known sound changes, would indeed give *allē (cf. sella ‘seat’ < *sed-lā). This pre-form may then have been borrowed from Proto-Greek *ādōlīs, if not from Pre-Greek *adl-īd- itself.
evidence for the hypothesis that the \textit{a}-prefix and the \textit{id}-suffix belonged to one and the same language system, i.e. Pre-Greek.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure1.png}
\caption{The geographical microsatellite variance of haplotype R1b1b2 according to Balaresque et al. 2010.}
\end{figure}

Regarding the linguistic situation in “Old Europe”, it has already been mentioned earlier that the distribution of the \textit{a}-prefix, i.e. its presence in both Greek, Italo-Celtic and Germanic, seems to be suggestive of a large, homogenous language stretching from Greece to Central or even Northern Europe (cf. Schrijver 2007). Now, if it is correct that this \textit{a}-prefix belonged to the same language as the \textit{id}-suffix, we now have tangible linguistic evidence in support of the hypothesis that Pre-Greek (or “Para-Pre-Greek”) speech also affected the more Northern branches of the Indo-European invaders. I have therefore tentatively suggested in Kroonen (forthc.) to map this substrate concerned onto the microsatellite variation of haplotype R1b1b2 (Figure 1), which has recently been linked to the spread of the Neolithic Revolution from Anatolia into North West Europe from nine thousand years ago (Balaresque et al. 2010). This is only one of many options, however.

\textit{The Journal of Indo-European Studies}
In recent years, Schrijver (2007; 2011) has collected evidence in favor of the claim that Pre-Greek was related to Hattic, a non-Indo-European language spoken in Anatolia in the 3rd and 2nd millennium BCE until it was ultimately marginalized by Hittite. Future research will have to reveal whether sufficient evidence can be gleaned in favor of this claim. It can be stated with some certainty, at any rate, that the prehistory of the Greek word for ‘garlic’ does not offer any direct counter evidence to it. On the contrary, the fact that the Pre-Greek substrate served as the mediator between Akkadian to the East and Greek to the West implies that, at the time of borrowing, the center of gravity of this non-Indo-European culture was situated in the area directly between these two languages, most probably Anatolia. It is tempting to think, from this perspective, that the borrowing of Akk. *gidlu* into Pre-Greek happened via the Assyrian *kārum*, the trading posts that were established throughout Anatolia at the beginning of the second millennium BCE. One of the best-known posts, located just outside the originally Hattic and later Hittite city of *Kaneš*, was established already in the last quarter of the third millennium, and flourished roughly between 2000 and 1600 BCE (Kurt 1995: 91). It therefore seems reasonable to assume that Akk. *gidlu* was adopted by Anatolian city-dwellers somewhere in the first quarter of the second millennium or perhaps slightly earlier.

References

Abaev, V. I.  

Anthony, D. W.  


Beekes, R. S. P. 2010 Etymological Dictionary of Greek. With the assistance of Lucien van Beek. Leiden: Brill.


Gimbutas, M. 1973 Old Europe c.7000-3500 BC., the earliest European cultures before the infiltration of the Indo-European peoples. Journal of Indo-European Studies 1, 1-20.

On the etymology of Greek ᾠγλίς and γέλαγς 'garlic'

Kroonen, G. J. 

Kuiper, F. B. J. 

Palmer, L. R. 

Potts, D. T. 

Sarna, N. M. 

Schrijver, P. 

Stol, M. 

Vennemann, Th. & P. N. Aziz Hanna (ed.) 

Watson, W. 

Witzel, M. 