

An Illusory Substratum Influence in Pamphylian *)

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1. The regular weakening of gamma to yod¹⁾ after the front vowel [ε] is one of the most striking characteristics of Pamphylian Greek. This is in fact one phonological feature which serves to distinguish Pamphylian from other Ancient Greek dialects (see e.g. Schmitt 1977: 96; Schwyzer 1939: 209; Thumb-Scherer 1959: 185).

According to Szemerényi (*SMEA* 5, 1968, p. 129) the change of gamma to yod in Pamphylian is striking for another reason. The contexts in which weakening occurs in Pamphylian are in sharp contrast to the late general Greek developments.²⁾ This fact leads Szemerényi to claim that the weakening of gamma in Pamphylian is deserving of special attention.³⁾ More specifically, he suggests that weakening of gamma is not an internal change in Pamphylian at all, but rather a change due to some external influence.

Since there is some onomastic evidence for a Luwian substratum in Pamphylia (see Neumann *IF* 65, 1960, pp. 95–96 and 1961: 43; Houwink Ten Cate 1965: 113ff.) and since Pamphylian and

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¹⁾ I have selected the term *weakening* to refer to the processes by which velars become *ɨ/ø* in Pamphylian (and Luwian). It is clear that spirantization, fronting, and widening all were part of the weakening process. In Pamphylian the order in which fronting and spirantization occurred is somewhat controversial. However, since fronting seems to be a prerequisite for loss of occlusion I would suggest that gamma was fronted (via assimilation with respect to the tongue position of the preceding vowel), spirantized, and then widened ([g] → [ǵ] → [j] → [j]).

²⁾ In *Koine* gamma is spirantized intervocally. Whether or not the resulting spirant is fronted depends on the quality of the following vowel (see Allen 1974: 30; Lejeune 1972: 54; Schwyzer 1939: 209). As noted in section 1, paragraph 1 gamma is spirantized intervocally in Pamphylian *only* if the preceding vowel is a front vowel. In other intervocalic contexts gamma is not spirantized (see Brixhe 1976: 85–86).

³⁾ The fact that the weakening of gamma occurs only after front vowels in Pamphylian is scarcely a sufficient reason in and of itself to seek an explanation via some external cause. Many developments in regional Greek dialects do not mirror *Koine* developments. We have no reason to expect parallel developments in every respect, and no reason to explain these differences by seeking some external causation.

Luwian⁴⁾ (Szemerényi, 130) show weakening of voiced velars⁵⁾ in similar contexts, Szemerényi proposes that the weakening process in Pamphylian is the result of a Luwian substratum influence. Despite the fact that traces of a Luwian substratum can be found in Pamphylian there is a good reason to reject Szemerényi's suggestion.⁶⁾ The Luwian and Pamphylian changes are not as similar as Szemerényi argues. In fact the contexts in which voiced velars were weakened are substantially different in both languages.

⁴⁾ Luwian is a cover term for a subgroup within the Anatolian branch of PIE. Cuneiform Luwian (CLuwian), Hieroglyphic Luwian (HLuwian), and Lycian (varieties A and B) are included in this subgroup. The dates at which these languages are attested vary considerably. CLuwian Texts are assigned to the 13th century B.C. The HLuwian texts are dated two or three centuries later (10th–8th centuries B.C.), and the Lycian inscriptions approximately two to three centuries after that (6th–4th centuries B.C.). Despite the chronological progression in the dates of attestation these languages are not mere chronological variants of one another (see Oettinger *KZ* 92, 1978, p. 75).

⁵⁾ Szemerényi (*SMEA* 5, 1968, p. 130) assumes that the PIE plain voiced stops and the PIE aspirated stops merged as plain voiced stops in P-A. There is some evidence from Palaic which suggests that these two series did not merge in P-A: *lukit* (*lu-ki-i-it*) 'break up' < **leuǵ-* vs. *huššinta* (*hu-uš-ši-i-in-ta*) 'bring as offering' < **ǵhey-*; *^aGulzannikeš* (*^aGul-za-an-ni-ke-eš*) 'group of Palaic deities' < **g^ul-* vs. *aḫuḫanti* (*a-ḫu-ḫa(-a)-an-ti*) 'drink' < **əǵ^h-* (zero grade of **h₁eg^h-*). I am indebted to H. Craig Melchert for bringing these data to my attention.

Since the plain voiced velar stops and the aspirated velar stops receive the same treatment in Luwian, i.e. are weakened, one can assume that they merged as plain voiced stops during the common Luwian period.

⁶⁾ Brixhe (1976: 87) argues that the fundamental problem with Szemerényi's hypothesis is the vast chronological chasm existing between CLuwian and Pamphylian. The CLuwian texts occur almost a millenium before the earliest attested Pamphylian inscriptions (4th century B.C.). Brixhe is correct in his view that the Luwian influence on Pamphylian cannot be assigned to the 2nd millenium. But this is not to say that the possibility of a Luwian substratum influence must be dismissed out of hand. There were speakers of a Luwian language, namely Lycian, in areas (Lycia and Cilicia Aspera) adjacent to Pamphylia well into the Hellenistic period (Houwink Ten Cate 1965: Introduction x–xi and Chapter 1). And while one would not want to propose that these Luwian speakers actively weakened underlying velars for a thousand years it would not be unreasonable to suggest that the sound change survived in the form of a phonotactic constraint. In effect the sound change could have resulted in a constraint against the pronunciation of velars (in the context *e__a* according to Szemerényi) in much the same way as the deletion of #*k* before *n* in English has resulted in a constraint against the pronunciation of #*kn-* sequences.

2. The strength of Szemerényi's claim of substratum influence must lie in the similarity between the Luwian and Pamphylian changes. Szemerényi (p. 130) argues that voiced velars are weakened intervocalically between *e* and *a* in both languages, e.g. Cuneiform Luwian (CLuwian) *tiāmmi-* 'earth' < Proto-Anatolian (P-A) **degam* < Proto-Indo-European (PIE) **dhéǵhōm*⁷⁾ and Pamphylian *μηε[ι]άλα* = *μεγάλην*. However, an investigation of the evidence for weakening in Luwian and Pamphylian reveals that the contexts for the changes are dramatically different in each language.

2.1 As was noted in section 2 Szemerényi claims that gamma is weakened only in the context *e*__*a* in Pamphylian. The evidence cited in support of this claim (Szemerényi, 129) comes almost exclusively from the adjective *μέγας* and its derivatives:

	<i>Inscription no.</i> ⁸⁾
<i>μηε[ι]άλα</i>	3 (p. 172)
<i>Μηειάλετι</i>	3 (p. 176)
<i>Μηεια[λε]τυς</i>	3 (p. 177)
<i>Μηειάλε</i>	3 (p. 183)
<i>Μειακλῆτυς</i>	55 (p. 227)
<i>Μειαλε[s]</i>	92 (p. 251)
<i>Μεαλίνα</i>	44 (p. 222)
<i>Μεᾶς</i>	48 (p. 223–4)

⁷⁾ For the reconstruction of PIE **dhéǵhōm* 'earth' see J. Schindler, *Sprache* 13.2, 1967, p. 201ff. and *Sprache* 23.1, 1977, pp. 31ff.

The derivation of CLuwian *tiāmmi-* from PIE **dhéǵhōm* is not as straightforward as generally indicated. There are at least two problems involved in such a derivation. First, since **e* regularly becomes *a* in Luwian, except after palatals (see Oettinger *KZ* 92, 1978, pp. 77–78, 80–81), the *i*-vocalism is problematic. Second, the double *-mm-* is left without an explanation.

Čop's account (*IF* 75, 1970, p. 91) of the derivation of *tiāmmi-* from **dhéǵhōm* creates as many problems as it solves. Briefly, he argues that *tiāmmi-* is an *i*-extension to **dhéǵhōm*. In the process of derivation the accent shifts from root to suffix (P-A **dégam* → **degám-i-*). As a result **g* was not geminated via *éC₁ → aC₁C₁* (for which see Čop *IF* 75, 1970, pp. 85–96) but underwent the regular development to *i*. **e* was then free to become *i* before *ǰ*. There is however no evidence for the shift of accent or for the change **e* to *i* before *ǰ*. Moreover, the double *-mm-* is still without an explanation.

H. Craig Melchert has suggested (personal communication) that CLuwian *tiāmmi-* may be a participle to **tāi tiānti* 'suckles.' The epithet 'the suckling one' would then have replaced 'earth.' The difficulties mentioned above enhance Melchert's suggestion. Of course the most important consequence of this suggestion is that Szemerényi's hypothesis loses its sole piece of support.

⁸⁾ All Pamphylian references may be found in Brixhe 1976.

	<i>Inscription no.</i>
<i>Μεακλῖς</i>	63 (p. 232–3)
[<i>M</i>]εάλις	119 (p. 264)
<i>Μεάλειττις</i>	158 (p. 281)
<i>Μιαλίνα</i>	45 (p. 222)
<i>Μιακλῖ[s]</i>	63 (p. 232–3)
<i>Μιαλειτους</i> ⁹⁾	109 (p. 260)

The only word cited by Szemerényi which is not derived from *μέγας* is *πρευας* ‘of Perga’ (Brixhe 1976: inscription 1 (p. 161)). Szemerényi derives this word from a metathesized **pergajās* in which *-ajā-* is contracted to *-ā-*, cf. Attic *Ἀθηναία*—*Ἄθηνα*. However the assumption of an *-ajā-* suffix seems unnecessary. *πρευας* can be more efficiently derived from **pregiās* (again from an earlier **pergiās* via metathesis) with an *-(i)jo-* suffix (for which see Schwyzler 1939: 466 and 209; Brixhe 1976: 86).

In addition to *πρευας* there are two additional words which bear on the precise contexts in which gamma was weakened in Pamphylian: *πρεῖφς* (Brixhe 1976: inscription 87 [p. 160–61]) and *πρεεως* (Brixhe 1976: inscription 141 [p. 247–48]). Both words are genitive singular of patronymics in *-εως*. *πρεῖφς* can be derived from an earlier **pregēwos*. The merger of long eta and iota as well as raising of omicron to upsilon in final syllables are typical of Pamphylian. *πρεεως* represents a genitive equivalent to *πρεῖφς* but with nondialectal inflection (Brixhe 1976: 248; Dressler *Sprache* 11, 1965, p. 196).

If the derivations of the words which are not related to *μέγας* are correct then one must conclude that the quality of the vowel in the environment following gamma is irrelevant as a conditioning factor for weakening. What is important is the quality of the preceding vowel. The examples cited in this section point to an [ε].¹⁰⁾

There is however some reason to suspect that the contexts favoring weakening were actually more general than the data would lead one to believe. As Brixhe (1976: 86, footnote 3) has pointed out, there are no examples of *-igV-* sequences in Pamphylian. As a result it is possible to conclude that weakening was not restricted

⁹⁾ Pamphylian words like *Μεακλῖς* may indicate that intervocalic yod was lost. The loss of intervocalic yod is almost certain in *Μιαλίνα* etc. since raising of epsilon indicates a vocalic hiatus.

¹⁰⁾ Szemerényi (*SMEA* 5, 1968, p. 129) and Brixhe (1976: 86–87) assume that metathesis of *-er-* occurs before spirantization.

only to the context after [ε] and that gamma was weakened after front vowels generally in Pamphylian. The sporadic weakening of gamma after [i] in Arcadian (e.g. *Φιάλεια* beside *Φιγάλεια*) and Attic (e.g. *ὄλιος* beside *ὄλιγος*) lends some credence to this hypothesis (see Buck 1955: 59; Schwyzler 1939: 209).

In sum then, the contexts in which weakening occurred in Pamphylian may be characterized as intervocalically after front vowels¹¹).

2.2 As noted earlier (section 2) Szemerényi offers CLuwian *tijammi-* ‘earth’ as evidence that voiced velars were weakened in identical contexts in Pamphylian and Luwian. Apparently it is this characteristic of pronunciation, the inability to pronounce voiced velars between *e* and *a*, which Luwian speakers carried over into their pronunciation of Pamphylian Greek. But closer inspection of the Luwian evidence for weakening shows that voiced velars were weakened in a variety of contexts and this fact makes Szemerényi’s substratum hypothesis very problematic.

Even Szemerényi himself points out (p. 130) that voiced velars were weakened in contexts other than between *e* and *a* in Luwian. Szemerényi cites one piece of evidence¹²) from CLuwian which indicates that voiced velars were weakened in initial position: CLuwian *iš(ša)ri-* ‘hand’ < P-A **gesr-* < PIE **ǵhesr-*, note Lycian *izri-* and Hieroglyphic Luwian (HLuwian) *isàtara/i-* (see Scheller *IF* 69, 1964, pp. 39–40; Tischler 1980: 560) and compare Hittite *keššar*, Greek *χείρ*. That the loss of voiced velars in this position was a regular sound change is assured by CLuwian *im(ma)ri-* ‘open country’¹³) which is generally derived from P-A **gemr-* < PIE

¹¹) There are a few cases in which gamma is retained intervocalically after a front vowel, e.g. *εγενομα* = *ἐγενόμενον* (see Brixhe 1976: 86). In every case a morpheme boundary precedes the gamma. It is possible that weakening was blocked by a preceding morpheme boundary or that gamma was reintroduced from initial position, e.g. in the case of *εγενομα* from augmentless forms.

¹²) The HLuwian example, *i-* ‘this’ < PIE **ǵheǵi/i* (see Scheller *IF* 69, 1964, p. 40), cited by Szemerényi is no longer valid since the reading of this pronoun has been corrected to *za-* (see Tischler 1980: 459).

¹³) Van Windekens (*KZ* 95, 1981, pp. 249–250) has suggested that Hittite *gim(ma)ra-* and CLuwian *im(ma)ri-* be derived from the PIE root **kem-* meaning ‘hem in, enclose’. H. Craig Melchert has pointed out (personal communication) that Van Windekens’ suggestion is implausible on semantic grounds. Hittite *gim(ma)ra-* and CLuwian *im(ma)ri-* refer to ‘open country’ and not to ‘fenced-in fields’ or the like. I would add that this suggestion is

**ghemr-* (see Scheller *IF* 69, 1964, p. 40; Tischler 1980: 574) and HLuwian *wawa-*/Lycian *vavã* (acc. sg.)¹⁴ ‘cow’ < P-A **g^wau-* < PIE **g^wou-* (see Laroche *BSL* 62, 1967, pp. 59–60; Oettinger *MSS* 34, 1976, pp. 101–102). Therefore, if Szemerényi’s hypothesis is going to be maintained then one must explain why Luwians learning Pamphylian only failed to pronounce voiced velars intervocalically between *e* and *a* and not in word initial position since all the evidence points to initial gamma remaining in Pamphylian, e.g. *γέρας*.

When the remaining good evidence¹⁵) for weakening of voiced velars in Luwian is taken into consideration the lack of parallelism between the Pamphylian and Luwian changes becomes even more apparent. There are two pieces of evidence which indicate that voiced velars were weakened in medial position in contexts other than *e*__*a*. CLuwian *parri-/parrai-* ‘high’ < P-A **bergi-/bargei-* < PIE **bhérǵhi-/bhrǵhéi-*¹⁶) (see Laroche *BSL* 58, 1963, p. 78) shows that voiced velars were weakened in postconsonantal position and HLuwian ^{FILIA}*tuwatara-* [duwatra-]/Lycian *kbatra* ‘daughter’ < P-A **dugatra-* < PIE **dhug^{tr}-* (Hawkins *KZ* 92, 1978, pp. 112–116; Laroche *BSL* 62, 1967, p. 47; Oettinger *MSS* 34, 1976, p. 101) provide evidence that voiced velars were weakened in intervocalic position regardless of the quality of the contiguous vowels.

The evidence for weakening of voiced velars in Luwian points to a fundamentally different type of change than in Pamphylian. The implausible on phonological grounds. There is good evidence which indicates that voiceless velars remained in Luwian, e.g. *kisai-* ‘comb’ < **kes-* and *kui-* ‘who, which’ < **k^wi-*.

¹⁴) Lycian also contains an alternate form for ‘cow’: *uva*. Laroche (*BSL* 62, 1967, p. 61) sees the relationship between *vavã* and *uva* as the result of a reduction of *va-* to *u-*. For an alternative explanation see Oettinger *MSS* 34, 1976, p. 102.

¹⁵) CLuwian *ūttiš* is probably to be added to the evidence for the loss of velars in Luwian. A. Morpurgo Davies has suggested (*KZ* 94, 1980, p. 106 footnote 24) that this word may be analyzed morphologically as consisting of a root *ū-* plus a second singular inflectional ending *-ttiš* and may mean ‘drink.’ If *ū-* is to be connected with the PIE root **h₁eg^wh-* ‘drink’ (as suggested by H. Craig Melchert, personal communication) then it can be derived by loss of the velar element (**h₁eg^wh-* > **ey-*) and monophthongization (**ey-* > *ū-*).

¹⁶) Laroche (*BSL* 58, 1963, p. 78) assumes that the variant writings (*par-ra-ia-an-za* vs. *par-ra-i-ia-z[a]*) indicate that Luwian retained ablaut variants in *i*-stem adjectives (for ablaut in Hittite *i*-stems see Friedrich 1960: 49–50) although their distribution and function have been altered. Since both forms are accusative plural (Laroche 1959: 78) it appears that the ablaut variants have survived as alternate stem forms (cf. CLuwian *ari-* vs. *arrai-* ‘long.’ Laroche 1959: 30).

fact that weakening occurs in the following contexts, $\# _ _ V$, $C _ _ V$, and $V _ _ V$, shows that it was essentially an unconditioned change.¹⁷⁾

3. To sum up, the contexts in which voiced velars were weakened are substantially different in Pamphylian and Luwian. In Pamphylian the weakening process is conditioned by a preceding front vowel, in Luwian the weakening of voiced velars is essentially a context-free process. As a result the proposed similarity between weakening in Pamphylian and Luwian is illusory. If, as Szemerényi wishes to argue, the loss of voiced velars was a feature carried over by Luwian speakers into their pronunciation of Pamphylian Greek then one would expect the absence of voiced velars in Pamphylian to be more widespread than is actually attested. The fact that it is not, coupled with the fact that voiced velars are weakened only after front vowels in Pamphylian, indicates strongly that Szemerényi's substratum hypothesis is wrong. Weakening of gamma is a Pamphylian innovation and not a contact-induced change.

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¹⁷⁾ The only evidence which indicates that there might have been some restriction on the general weakening of voiced velars in Luwian is the HLuwian word *takamī* 'earth' (see Meriggi 1966: 41) although there is some controversy with respect to its prehistory.

Čop (*IF* 75, 1970, p. 91) derives HLuwian *takamī* from P-A **dégam* < PIE **dhéghōm* directly. According to Čop P-A **dégam* will yield **daggam* via $\acute{e}C_1 \rightarrow aC_1C_1$. Čop then argues that HLuwian *takamī* is the result of cluster reduction. Čop may indeed be right in his suggestion that HLuwian *takamī* shows the real result of PIE **dhéghōm* in Luwian, but his last suggestion is unnecessary. The HLuwian writing system cannot show clusters. As a result HLuwian *takamī* may actually represent [daggamī] phonetically.

If Čop's account is correct then one must maintain that voiced velars were not weakened in geminate clusters.

N. Oettinger (*MSS* 34, 1976, p. 101) offers an alternative explanation for HLuwian *takamī*. He claims that this word is an *i*-stem extension to the oblique stem **dagm-i-* < P-A **dagm-* (for which see Schindler *Sprache* 23,1, 1977, p. 31). If Oettinger's suggestion is correct then one might propose that voiced velars were not weakened before sonorant consonants.

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Drei alt- und neugriechische Babywörter

VON THEODOROS STEPHANOPOULOS, Athen

Aristoph. Nub. 1380 ff.

καὶ πῶς δικαίως; ὅστις ᾧ 'ναίσχυντέ σ' ἐξέθρεψα
αἰσθανόμενός σου πάντα τραυλίζοντος, ὅ, τι νοοίης.