New Phrygian (-)τετικμενος, Hittite tekriand other descendants of PIE *deik-*



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To Craig Melchert, with gratitude

ABSTRACT

This paper surveys the previous interpretations of NPhryg. (-)τετικμένος and argues in favor of a translation 'condemned' and derivation from PIE *deik- (Ved. dis-, Gk. δείκνυμι, Lat. dicere). The proposed root connection finds support in the new etymological solution offered for Hitt. tekri- 'derogation, condemnation' < *do/eik-ri-. The third piece of evidence for the root *deik- used to express the idea of censure comes from PGmc. *teihan 'to accuse'. The source of the semantics is sought in Indo-European poetic language; it is argued that the PIE root *deik- could be employed in verbal contexts related not just to praise (Nikolaev 2012), but also to blame.

KEYWORDS

Indo-European, Phrygian, Hittite, Celtic, Germanic, etymology, poetic language

1. NEW PHRYGIAN (-)τετικμενος AND ITS ETYMOLOGY

The participle (-)τετικμένος is one of the best attested New Phrygian forms (65x). It is attested in highly standardized malediction formulae that are generally agreed to describe the fate of a violator of the tomb. The use of (-)τετικμένος can be illustrated by the following inscriptions:

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- See Obrador-Cursach 2020: 362–363.
- 2 The form is mostly found after the particle τι spelled as τι(τ)τετικμενος; it is once attested without τι (22.2 Obrador-Cursach = 118 Haas, with a hypercorrect spelling τετιοκμενος) and is twice found with ατε-/ατι-. Haas (1966: 88), followed by Lubotsky (1989: 86–87), plausibly explained the geminate as caused by the final consonant of the preceding particle (*tit tetikmenos). Another possibility is to take the τι from a prefix *d(μ)is (- Lat. dis-), see Obrador-Cursach 2020: 110 and cf. NPhr. τιδρεγρουν 'inedible, unpalatable' < *dis-dʰregʷʰro- (Haas 1966: 67, cf. Gk. τρέφω 'feed, bring up', further compared by Adams 2005 to Skt. d(h)rākṣā- 'grape', Toch. B traksiñ (nom.pl.) 'ears (of grain)', Late Khotanese drrāṃśā- 'millet', OIr. derc 'berry' and Serbo-Croatian drên 'cornel cherry').



ιος νι σεμον | κνουμανε κακον | αδακετ, δεως | ζεμελως τιτετικ|μενος ειτου 'Whoever does harm to this tomb, let him be τετικμενος (in the sight of) gods and men'

(32.1 Obrador-Cursach = 93 Haas)

ιος νι σεμον κνουμα|νε κακον δακετ αινι μανκα, τιε τιττετι|κμενος ειτου 'Whoever does harm to this tomb or stele, let him be τετικμενος (by) Zeus' (36.1 Obrador-Cursach = 26 Haas)

A Greek inscription found in Çayırbaşı is widely assumed to contain a calque of the Phrygian formula in the third line:

τίς δὲ ταύτη θαλάμειν κακὸν ποσποιήσει, κατηραμένος ἤτω 'whoever does harm to this (funerary) chamber, let him be accursed'³

The morphological analysis of the form (-)τετικμενος is not in doubt: it clearly is a middle participle made from a reduplicated stem, most likely perfect.⁴ The meaning and the etymology of the root, however, have been much debated. Many solutions have been proposed, three of which have continued to enjoy popularity in contemporary scholarship.

1.1 The first one is due to Marstrander (1929: 296), according to whom (-)τετικμενος 'cursed' belongs with Old Irish tongid, 'toing 'swears', Middle Welsh tyngu 'to swear'. This etymology was revived by Pokorny (1959: 1055) and more recently resuscitated in LIV^2 615, where a root *teg- 'schwören' is set up on the strength of the Celtic and Phrygian forms. ⁵ This reconstruction is, however, beset with problems.

As far as the Celtic side of this equation is concerned, there is no certainty whether the root vowel in 'toing goes back to PIE *u or *o. In Welsh, *tunge/o- and *tonge/o-would have the same reflex, 6 while the Irish present stem 'toing is better explained either from *tunge/o- with regular vowel lowering (H. Pedersen's theory) or from

³ Obrador-Cursach 2020: 607.

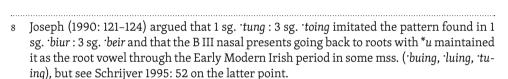
Phrygian -μενο- clearly reflects the PIE middle participle suffix, which may be reconstructed either as *meno or as *-mh,no-, as suggested by Klingenschmitt (1975: 163). Klingenschmitt was at the time doubtful about the Phrygian suffix, but the development *h₁ > e / C__C can currently be supported by several examples: δετουν 'monument' < * d^hh_1 -to-, δεως 'by the gods' < * d^hh_1 s-ōis, keneman 'niche, sepulcrum' < *kenh,mn and perhaps aor. εκανες 'dug' < *knh,s- (see Lubotsky 1988: 15; Gorbachov 2005: 211–2).

⁵ Sowa (2008: 115 n. 42) hesitantly agrees with the *LIV*.

⁶ See Schrijver 1995: 27–9 for Proto-British raising of *ŏ to *ŭ before nasal + stop.

Pedersen 1909: 35, 41, 362: *u > *o before *e in the following syllable if the intervening consonant(s) was non-palatal (see also Schrijver 1995: 50–52; before *o in the following syllable the lowering in Goidelic is universally accepted: *tungo- > *tongo-). Stüber (1998: 87) suggests a neutralization of phonemic opposition between /u/ and /o/ before a group of nasal + stop in Irish (*bundeti > 'boind), which would be the opposite of the development in British.

*tunge/o- with an analogical replacement of 1 sg. 'tung: 3 sg. 'tuing by 1 sg. 'tung: 3 sg. 'toing (L. Joseph's theory)⁸ or from *teunge/o- with a secondary full grade (K. McCone's theory),⁹ rather than from a morphologically suspect o-grade *tonge/o- reconstructed by Marstrander.¹⁰ A root *teug- (>*toug) will also account for Old Irish subj. tó (<*tōxt <*tougst) and Cornish ty 'oath' (<*tugio-).¹¹ The suppletive parts of the Averbo of this Celtic verb,¹² namely, pret. 'tethaig (whose e-reduplication is incompatible with a root with an internal u)¹³ and the verbal nouns fretech 'foreswearing, renouncing', díthech 'oath of denial' and éthech 'false swearing', may go back not only to Marstrander's *teg- but also to the much better attested *tek- 'to take' (Proto-Germanic *pegja 'to receive, to take', Lithuanian tèkti 'to be present in abundance, to suffice', LIV² 618).¹⁴ As a parallel, Schumacher (2004: 632) cites the semantic development of PIE *h_emh_3' seize' > Greek ὄμνυμι 'swear', Sanskrit am¹- 'injure' and 'swear', explained by K. Hoffmann as 'fest anfassen zur Eidesleistung'. ¹⁵ The Celtic evidence can thus be explained on the basis of two roots, *tek- and *teug- (>*toug-). ¹⁶



⁹ McCone 1991: 42–7: *teunge/o- > *tounge/o- > *tonge/o- > *tonge/o- with Osthoff's Law. The same explanation is advanced by McCone for as boind 'refuses' (< *-bonde/o- < *-bonde/o- < *-bounde/o- < *-bunde/o- < *-bunde/o- , Greek πυνθάνομαι), bongid 'breaks' (*-bunge/o-), fo-loing 'supports' (< *lunge/o-) and fo-roind 'reddens' (< *-h,rundhe/o-).

- 12 See Veselinović 2003: 166.
- 13 See McCone 1991: 45.
- Compare the meaning of pret. *con'tethaig* 'possesses, comprises', unless the latter is related to the root *tag- of Old Latin tagō, perf. *contigit* (Joseph 1990: 118).
- 15 Hoffmann 1969: 209. For hand gestures involved in taking an oath see Katz 1998.
- A different and less plausible etymology of 'toing was proposed by E. P. Hamp apud Koch 1992: 257, followed by Schulze-Thulin 2001: 215: Hamp compared Celtic *tonge/o- to Latin tongēre 'nōsse', Oscan tanginúd 'decree', PDE think (PIE *teng(h)-, see Kümmel 2016).



The hypothesis that the o-grade was imported from an (unattested!) causative-iterative *tog-eie/o-(LEIA T-108) does not carry conviction. The LIV lemma further mentions Gaulish toncsiíontío, but it is absolutely not certain that this form (which does not necessarily mean 'who will swear') belongs to the same root as Old Irish 'toing; see the arguments against the connection advanced by Schumacher 2004: 651. Schrijver (1997: 181) compares the root of Old Irish tocad 'chance, fate', Middle Welsh tynghet, and the rare verb tocaid 'to (be) destine(d)' < *tonk-eie/o- (see Schumacher 1995).

See Joseph 1990: 118–20. As to the further origin of Celtic *toug, two theories have been proposed. Lindeman (1999) argued that this root is a reflex of PIE * $h_l eug^{wh}$ - 'solemnly proclaim' with a preverb * $(h_2)d$, while Schumacher (2004: 650–1) pointed out that synchronically the verbal noun of the simplex tongid is lug(a)e 'oath' (Welsh llw, Cornish $ly < h_2 lugio$) and posited a contamination between PIE *tek- 'extend (the hand), receive' and PIE * $h_2 leug^h$ - '(öffentlich) verkünden' (Hittite $h_3 luga$ - 'message', Gothic liugan 'to lie', Slavic * $lv_3 luga$ - 'id.'. Through the crossing of Proto-Celtic * lv_4 - and * lv_4 - a new root * lv_4 - has emerged.



The evidence for a putative PIE root *teg- 'to swear' from which Phrygian (-) τετιμμένος could be derived is thus very uncertain, but there is an additional serious weakness on the Phrygian side, namely, the purported development of *e to Phrygian -i- in the medial syllable on which Marstrander chose not to comment. Little as we know about the phonology of Phrygian, it certainly did not behave like Latin with respect to its vowels. In fact, Phrygian vowels are surprisingly stable, both in Old and New Phrygian, cf. keneman 'niche, sepulcrum' < *kenh_mm, \text{18} acc. sg. materan 'mother' < *mah_tern, egertoy '?',\text{19} etc. This point is made particularly clear by the thematic vowel in such extremely well-attested forms as 3 sg. $\alpha\beta\beta\epsilon\rho\epsilon\tauo\iota$ / - $\tauo\rho$ 'brings' < *(ad)bheretoi / -tor or $\alpha\delta\delta\alpha\kappa\epsilon\tau$ (act.), $\alpha\delta\delta\alpha\kappa\epsilon\tauo\rho$ (mid.) 'puts' < *(ad-)dheh_ket / -tor. This phonetic difficulty seems to be fatal for Marstrander's analysis.

- 1.2 The second solution was proposed by Haas (1966: 88), who connected (-) τετιμένος with the root of Greek στίζω 'to brand' and offered a translation 'brandmarkt' (= Greek ἐστιγμένος). This etymology was justifiably criticized by Heubeck (1987: 74) on the grounds of semantics. Orel (1997: 59) accepted Haas' solution faute de mieux but apparently shared Heubeck's concerns and sought to improve on Haas' idea by translating (-) τετιμένος είτου by 'let him be struck' (1997: 68), potentially toying with a parallel in New High German fluchen 'curse, swear' from *pleh_g- 'to strike' (Greek πλήσσω). But the basic meaning of PIE *(s)teig- is 'to be sharp', and even its transitive reflexes in the daughter languages show meanings closely related to the idea of sharpness, cf. Old Norse steikja 'roast (on a spit)' or Latin īnstīgāre 'urge on (with a goad)'. It would be hard to imagine that the original meaning of Phrygian (-) τετικμένος referred to a concrete action such as 'sting' or 'pierce'.
- 1.3 Finally, a connection between (-)τετικμενος and PIE *deik- 'show' was proposed by Meister (1909: 318 n. 1), who posited a meaning '(zur Bestrafung) zugesprochen / angezeigt'. ²⁰ Meister's etymology was adopted by several scholars. ²¹ This etymology

¹⁷ According to the dossier in Obrador-Cursach (2020: 362–3), the form is spelled with <ι> in sixty instances, while two outliers with <ει> and <ιο> can be easily explained as itacistic confusions; gen. pl. τιτετουκμενουν (33.1 Obrador-Cursach = 28 Haas) is a bit problematic, but in the words of Sowa (2007: 90 n. 43) "dürfte eher phonetische Ursachen haben als eine analogische o-Stufe."

¹⁸ See Obrador-Cursach 2020: 126.

Janda (1997: 276) suggests 'erects' (* h_l ger-, Greek ἐγείρω 'wake up', Albanian ngre 'raise'). This etymology, however, is incompatible with the historical phonology of Phrygian adopted in this paper (*g > k); another possibility is that egertoy is a full-grade middle root aorist made from the root * \hat{g}^h er- 'bring, take' (LIV^2 177).

²⁰ Meister viewed the spelling ττετικμενος with an initial geminate as prefixed with a zero grade of $*(h_2)ad$ - 'to' and directly compared Latin $add\bar{\imath}c\bar{\imath}$, Greek ἐπιδείκνυμι, but this is unnecessary, see n. 2.

²¹ See Bonfante 1946: 89; Diakonoff & Neroznak 1985: 137; Neumann 1988: 4; Lubotsky 2004: 235 (who also accepts Brixhe's emendation ιστεικετ for transmitted ισγεικετ (Obrador-Cursach 6.1 = Haas 88), analyzing the form as etymologically related to Greek ἐκδείκνυμι,

faces both semantic and phonological difficulties, and yet I believe that this is the correct solution.



From the formal viewpoint, the advantage of this etymology is its ability to deal effectively with the problem of -i- in the medial syllable of (-)τετικμενος. However, the proposed explanation hinges on a much-vexed aspect of Phrygian phonology: (-)τετικμενος can only be derived from weak perfect stem *de-dik if PIE voiced stops in this language turned into voiceless stops (*d > t). While it has always been widely agreed that PIE voiced aspirated stops became voiced stops in Phrygian, the outcome of PIE *d and *q has been debated; the once popular Lautverschiebung theory taking *d, *q to Phrygian t, k was effectively resuscitated by Lubotsky (2004), who identified Phrygian tios, tie(i), tian as reflexes of PIE *dieu-. For PIE *d the transition to Phrygian t is further suggested by 3 sg. impy, οουιτετου 'may he find' (< *ueid-) and the preverb ti(s) < *d(u)is, while *q > k is made likely by Phrygian βεκος 'bread' from the same root as Greek φώγω 'bake' and PDE bake, 22 vrekun 'idol'' < *uergom23 and knaik- 'woman, wife' $< *q^w neh_2 ik$ -.²⁴ In the past decade new arguments have been advanced in favor of an unconditioned devoicing of PIE unaspirated stops in Phrygian: the Old Phrygian form petes 'feet' (< *ped-es) was identified by Kloekhorst (2015), Old Phrygian totin was plausibly analyzed by Ligorio (2016) as a reflex of *dh₋-ti- 'gift' (Greek δόσις), Old Phrygian torvetun was tentatively taken from *doru- by A. Lubotsky apud Hämmig 2013: 150 n. 52, and unclear Old Phrygian tekiset and eveteksetiy were compared to Greek δέκομαι 'accept', PIE *dek- by Tamsü Polat, Polat & Lubotsky (2020: 51); for Old Phrygian mekas 'great' (< *me \hat{q} - h_-)²⁵ see the discussion by Obrador-Cursach (2016). It is important to emphasize that the recent identifications in particular are extremely tentative, and the devoicing of PIE voiced dentals and tectals in Phrygian is not universally accepted.26 On the balance, nevertheless, the evidence for devoicing of PIE unaspirated voiced stops in Phrygian appears strong enough to allow the derivation of τετικμενος from *de-dik.²⁷

but it remains unclear why the final consonant of the preverb was not assimilated to the initial dental of the root).

- 22 See Panagl & Kowal 1983: 186-7.
- 23 See Matzinger 2005: 386-90, who postulates a neutralization of voice distinction after /r/.
- 24 See Ligorio & Lubotsky 2018: 1823–4. Woodhouse (2006, 2009) advocated a (conditioned) devoicing of PIE unaspirated stops in Phrygian, but his sound laws would not allow one to derive (-)τετικμενος from *deik-.
- In this case the adjacent laryngeal may have played a role, cf. the unexpected reflex of PIE *d in Tocharian AB $k\ddot{a}t\ddot{a}$ 'strew' (not $^*k\ddot{a}ts\ddot{a}$ -) $<^*(s)kedh_2$ -, Greek σκίδνημι, unless the development *d > t in this Tocharian verb is due to the adjacent nasal (but all examples for this development feature post-nasal devoicing, cf. AB späntā- 'trust' < *spend- (Latin spondēre) and see Hackstein 2017: 1324).
- See the detailed rejoinder to Lubotsky 2004 by Matzinger (2006). Sowa (2008: 28 n. 15), Gorbachov (2008: 95) and Woudhuizen (2021: 4-5) are likewise skeptical of the devoicing of PIE voiced stops in Phrygian.
- 27 New Phrygian <ε>δικες, translated by Orel (1997: 333, 369, 422) as 'devoted, dedicated' and derived from *deik´-, is in all likelihood unrelated and may go back to PIE *dħeig´(ħ)- 'build up, fashion', as I intend to discuss elsewhere.



The semantic difficulty appears more serious: the meaning of New Phrygian (-)τετικμένος seems rather different from that of PIE *deiκ-, traditionally glossed as 'to show' or, in the formulation of E. Tichy, "to bring something that one sees oneself to the optical notice of another through verbal or nonverbal means". This problem has not gone unnoticed (cf. e.g. R. Gusmani: "il senso è ben diverso"), 29 and I am not convinced by Lubotsky's use of Greek διαδικάζω 'judge' and καταδικάζω 'condemn' as parallels: 30 these verbs are derived from δίκη 'rule, justice, judgment', which is an inner-Greek formation, 31 and thus represent a specifically Greek development. 32

The problem of the semantic relationship between New Phrygian (-)τετιμμενος and PIE *deik can be reassessed in the light of new insights about the usage of this PIE root. Based on some well-known facts about Germanic and a new analysis of Hittite tekri-, I will argue that the root *deik was used to denote vituperative verbal acts and that this use of the root makes the contextually plausible meaning 'condemned' for (-)τετιμμενος entirely unproblematic from the etymological viewpoint.

2. A NEW COMPARISON

The undisputed reflex of PIE *deik in Germanic is *teihan 'to accuse' (cf. Old High German zīhan 'to incriminate', Old Phrysian tīgia 'id.', New High German Anzeige 'legal complaint', etc.). Surprisingly, these forms have not, to my knowledge, figured in the discussion of New Phrygian (-)τετικμενος. The significance of this group of cognates is clear: both Germanic *teihan and the Phrygian form refer to something bad.

In addition, there is a third piece of evidence for the root *deik used in a similar fashion. Contrary to the handbooks, which do not list any Anatolian reflexes of PIE *deik-, we may in fact find a hitherto unrecognized cognate in the Hittite word tekri-. This word is scantily attested: it is found in a vocabulary list where [t]ekri

²⁸ Tichy 1979: 171.

²⁹ Gusmani 1958: 890.

³⁰ Lubotsky 1998: 420 n. 22; 2004: 235; similarly Anfosso 2017: 15.

³¹ Skt. *diśā*- 'direction, region' is traditionally — and rightly — viewed as an independent formation (see e.g. Dieu 2016: 141–2).

It seems equally unlikely that Phrygian tik- adopted the meaning of Greek δ i κ - as the result of Greek-Phrygian language contact.

See the discussion by Hofmann 1972–1973: 73–75.

³⁴ One exception is Neumann (1988: 4): "τετικμενος "verurteilt[?]", wenn zu indogermanisch *deik-, IEW 188f., deutsch "zeihen"."

³⁵ Kloekhorst 2008: 863 translates *impaḥuwar* as 'making a burden', probably assuming unattested factitive *impaḥh as the derivational base, but see HW² 4.56.

Ed. by Scheucher 2012: 584–7. The Sumerian and Akkadian equivalents are lost. Between [t]ekriš and markiyawar the vocabulary list has hateššanza, which may have been

tekrin pa [$r\bar{a}$ (KBo 16.48+KBo 31.221 6') after walahher 'they struck'. ³⁷ Beside these fragmentary and obscure contexts the word was until recently known only from the Deeds of Suppiluliuma (CTH 40.IV.1.A), where it is found in the speech of Dahamunzu, the queen of Egypt:



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KBo 5.6 rev. iii 14-15 (NH):

ÌR=YA=ma=wa nūwān parā daḥḥi
nu=war=an=za=kan <sup>LÚ</sup>MUTI=YA iyami te-ek-ri=[w]a naḥmi
'I will not take one of my subjects and make him my husband.
I fear tekri-'38
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It has been noticed that a similar idea is reprised a few lines later (iii 54-iv 2), where the queen says that if she had written to a foreign king about having a son from this mésalliance, it would be a shame for her and for the country (ammel=ya KUR-eaš tepnumar). The traditional assumption has therefore been that the words tekriš and tepnumar 'humiliation, derogation, shame' belong to the same semantic field, and tekriš has been translated as 'defilement'.³⁹

A new context came to light thanks to joins made by Miller (2008: 121–24). Our word is found in a letter, possibly sent by the Hittite great king to the Assyrian

used here in a figurative meaning referring to mental health ('wilted') rather than literal 'dried up'.

Ed. by Groddek 2011: 39, who identifies the fragment as either belonging to a letter from a Hittite king (l. 11' d UTU SI = mu in l. 6') or containing a quote from such a letter.

nah(h) - can be construed either with acc. (in which case word-final -*n* in *tekrin* has been assimilated to enclitic *wa*) or dat. (see CHD L–N 339–340).

^{39 &#}x27;Befleckung': J. Friedrich, H. Güterbock, H. Kronasser (see the references in Kloekhorst 2008: 863-64); 'onta': del Monte 2009: 113. E. Neu (apud Tischler 1993: 302), followed by Rieken 1999: 210-211, suggested a closely related meaning 'Kennzeichnung' based on the purported etymological relationship with Hittite tekkuššiye/a- 'to show' and Greek τέκμαρ 'sign', but the Greek word most likely goes back to the same root *k™eḱ- as in Vedic kāś- ~ caks- 'appear; observe; reveal', see Nussbaum 2014; for Hittite takku- / tekku- 'show' see Sasseville 2019. Puhvel (2007: 285–86) argued for 'degradation, stigma' and derived tekrifrom PIE *(s)teig- (Greek στίγμα 'brand', Vedic tej- 'to be sharp'). The following dissenting opinions are on the record: Kloekhorst (2008: 864) opted for the meaning 'deposition, removal from power' (from *deik-, 'toss, hurl'), but see the persuasive criticisms by Alexandrov & Sideltsev (2009[2011]: 63–64) and Groddek (2011: 42), who points out that KBo 31.221 6' (probably spoken by a Hittite king) is problematic for Kloekhorst's interpretation (note that the context to be discussed presently in the main text (KBo 18.28+) could not have been known to Kloekhorst prior to the completion of his dictionary); Breyer (2010) argued that tekri- means 'shameless woman, prostitute' and is a loanword from Egyptian t^3 - k^3 r.t 'vulva' (see Alexandrov & Sideltsev 2009[2011]: 65 and Groddek 2011 for a critical assessment and Breyer 2013 for a response); Manaster Ramer (ms.) posits the meaning 'tying-up (of the womb)' (for the Deeds of Suppiluliuma context) / 'tying-up (of the target)' (for KBo 18.28+), deriving the form from PIE *(s)teq- 'cover'. For Melchert 2021: 384 n. 13 "[its] origin remains unclear."



great king.⁴⁰ The sender, responding to the addressee's earlier insults, is accusing him of a treaty violation; in line 8' of the letter he first paraphrases the addressee's words:

(8') [kiša]n=pat kuit DU_n-ši āššweni=m[a]n=wa=kan man ṬUPPU MĀMĪT DÙ-weni 'Why do you say in this same way: "If (only) we made the oath treaty in a friendly manner?"

Right after this the sender says, likely referring to a vassal who was responsible for the misunderstanding between the two parties:⁴¹

(9') [nu] te-ek-ri-in kuin te-ek-ri-i[š-ke-z]i 'What tekri is he tekri-ing?'

It is clear that the traditional translation does not work here. Alexandrov & Sideltsev (2009[2011]) in their discussion of the exceedingly difficult beginning of this text (4'-12') analyzed the clause *nu tekrin kuin tekriškezi* as a (rhetorical) question 'what slander is he hurling?'. This translation is merely provisional, as the authors themselves admit; for our purposes it is sufficient to note that this phrase clearly denotes a *speech act* of some kind.⁴² Important, too, is the *figura etymologica* that is particularly often found in Hittite with verbs of speaking: cf. *memiyanus memai* 'speaks words' (KUB 15.31 i 18+) or *ħukmain ħukzi* 'conjures a conjuration' (KUB 12.58 i 33). Outside of Anatolian one may compare English *sing a song*, Vedic *śastím śamśa* 'sing praise' (RV 4.3.3) or Greek ἀρὰς ἀρᾶσθαι 'to hurl curses' (Soph. *OC* 952). It is not unreasonable to speculate that the vassal who *tekrin tekriškezi* was speaking ill of some of the people involved in the treaty. The translation 'accusation', 'condemnation' is at least compatible with the fragmentary attestations of the word *tekri*- and would fit particularly nicely the passage cited earlier from the *Deeds of Suppiluliuma*: the queen of Egypt is afraid of words of derogation or disapproval.

⁴⁰ CTH 190: KBo 18.28+KBo 50.73+Bo 3626 (NH/NS); ed. Miller 2008: 121–24, trans. Alexandrov & Sideltsev 2009[2011]: 60. For the addressee of the letter see also Yamada 2011: 207–209.

⁴¹ It is important to emphasize that no certainty in the interpretation of this text has been achieved.

⁴² Cf. Melchert 2017: 179. In translating <code>tekrin tekriškezi</code> as 'hurls a slander' Alexandrov & Sideltsev (as well as other Hittitologists cited p.c.) may have been influenced by a possible etymological connection with the other root *deik- 'to hurl, to throw' (Greek aor. δικέ/ό- 'throw', Khotanese dīśś-), cf. Greek διαβάλλω 'reprove'. But while "to hurl slander" is a regular idiom in American English, it does not have been acceptable in Hittite. In addition, the etymological connection with *deik- 'to hurl' is seriously compromised by the fact that the verb <code>tekriške/a</code> is a denominative verb made from <code>tekri-</code> (contrast Greek ἀρὰς ἀρᾶσθαι cited above, where ἀράομαι is a denominative verb made from ἀρᾶ'curse, imprecation' < *h₂er- 'speak solemnly, curse', see n. 56 below).

Phonologically and morphologically, nothing stands in the way of deriving tekri(< te-ek-ri>) from the o-grade of the root $*deik.^{43}$ In Proto-Anatolian, the reflex of the PIE voiceless *k- would be lenited after an accented diphthong, 44 and then the diphthong would be monophthongized. In Anatolian, ri is a moderately productive suffix forming action / result nouns directly from verbal roots, cf. Hittite $^{sic}kišri$ - 'skein of carded wool' from ke/iš- 'to comb' or $z\bar{e}ri$ - 'fired clay cup' from $z\bar{e}$ - 'to be cooked done'. However, in the absence of any other traces of PIE *deik- in Anatolian, tekri- is best analyzed as an inherited formation going back to *do/eik-ri-, 47 itself a substantivization of passive deverbative *d(e)ikró of the type *sk/kidró- (Ved. chidrá- 'split', Gmc. *skidra- 'porous', Latv. škidrs 'thin'). 48 If the proposed etymology is correct, 49 Hittite



⁴³ Kloekhorst (2008: 864) has already suggested *deik- as the etymon, but since he operated with a meaning 'deposition, removal from power', he chose the root *deik-2 'to throw' (see n. 39).

⁴⁴ Cf. Palaic ki-i-ta-ar 'is lying' < *kei-tor, Luwian i-ti 'he goes' < *h,éi-ti, Hittite e-ḫu 'come!' < *h,ei-h,ou (Eichner 1973: 55).

⁴⁵ E-grade *deigri- might be another option, since after a dental no raising of Proto-Anatolian *ē < *ei̯ to /i/ is expected. Kloekhorst (2008: 100) tentatively suggests that the following velar could have triggered raising just as the preceding velar did, citing Hittite ša-li-i-ga / slīga/ 'he touches' < *sleiģ-o in support of this hypothesis, but secondarily root-accented zero-grade *sliġ-o is just as possible. In the absence of a consensus about the reflexes of PIE *ei̯ in Hittite, o-grade *doi̞kri- may be phonologically easier.

⁴⁶ See Melchert 1999: 365-68; 2021: 384-385.

An example of a deverbal derivative of this type attested in more than one branch is Vedic v'adhri- 'castrated (male)', Greek Hsch. ε 696 έθρίς 'castrated ram', ε 400 ἴθρις 'eunuch'; this comparison is not universally accepted (see e.g. Thieme 1954: 50–52), but was recently resuscitated by le Feuvre 2021: 320–321. The original root apophony in deverbal ri-stem-substantivizations cannot be reconstructed with certainty both because the examples are scarce and because the root ablaut could always have been aligned with that of the derivational basis or the verb (see the following footnote); the evidence of other i-stem deverbative substantives appears to suggest acrostatic declension (see Rau 2010: 181; Nikolaev 2014: 262 n. 27), and so does the evidence of the much better attested substantivization of primary adjectives (* h_2 ekró- 'sharp' \rightarrow * h_2 ó/ék-ri-'sharpness, sharp thing'), making *do/eikri- a morphologically plausible reconstruction.

⁴⁸ For substantivization of deverbative ro-adjectives cf. *μiH-ro- 'bent' (Germanic *μ̄ra- 'wire', Old Irish fiar 'crooked') → *μiH-ri- 'what is bent' (Greek ἴρις 'rainbow'), *dʰegʷʰ-ro- 'burning, burned' (Greek τέφρα 'ashes') → *dʰegʷʰ-ri- 'what is burning, burn' (Latin febris 'fever'), *steh₂-ro- 'still, rigid' (Slavic *starъ 'old', Lithuanian stóras 'thick, stout', perhaps Old Norse stórr 'big') → *steh₂-ri- 'what is thick' (Lithuanian stõris 'thickness'), or *ģnḫ₃-ro- 'known; knowing' (Latin gnārus) → *ģnḫ₃-ri- 'what is known; knowledge' (→ Gk. γνωριμός 'known'). An inherited (and possibly prototypical) example in Anatolian may be Hittite ēdri- 'food' < *ħˌed-ri- (perhaps, *ħˌo/ed-ri- with ablaut leveled after the verb) ← *ħˌed-ro- 'what is eaten' (Lith. ėdrà 'food').

⁴⁹ See n. 39 above for alternative solutions that have been proposed. It should be noted that the word *tekri*- can in theory go back to a plethora of other roots, none of which, however, seem to me to offer a semantically plausible connection.



tekri- 'condemnation' may serve as an indication of the fact that the root *deik- 'to show' was used to refer to vituperative verbal acts.

The formal and semantic similarity between Germanic *teihan, Hittite tekri- and New Phrygian (-)τετικμενος suggests the translation 'condemned' for the latter: condemnation to a punishment is precisely what we expect to find in a malediction formula.

3. THE SEMANTIC RECONSTRUCTION OF PIE *dejk-

How should we explain this semantic variation of PIE *deik-? According to an influential view set forth by E. Benveniste and W. Porzig, 50 the use of the root *deik- 'to show, to point out' in legal language was responsible for the meaning 'accuse' found in Germanic *teihan: the transition from the gesture of pointing to the pronouncement of the verdict supposedly first took place in verbal phrases where the object of * $dei\hat{k}$ - was the noun for 'law', 'justice' (Latin iūs dīcere, iūdex 'judge') and the root *deik- encoded a performative act. From legal language the meaning 'to speak' was generalized in Italic. Ingenious though this theory may be, legal use seems to be a rather slender basis for a major lexical innovation. In addition, if the analysis of Hitt. tekri- proposed above is correct, the semantic development canvassed by Porzig and Benveniste would have to be pushed back to Proto-Indo-European prehistory,⁵¹ but there is no basis for reconstructing a noun for 'law' or 'justice' for Proto-Indo-European: Latin iūs < ieues- 'binding' (Ved. yu-) was shown to be an Italo-Celtic innovation by Weiss (2018), while Anatolian and Tocharian legal terminology (Hittite hanneššar 'law, judgement, trial', išhiul 'law', Toch. B keś tā- 'to judge', preksanta 'judge', etc.), even though made from inherited roots, appears innovative within the respective branches.⁵²

An alternative — or, perhaps, a complementary — theory can be put forth. In an earlier publication (Nikolaev 2012) I argued that Greek and Indo-Iranian not only retained the colloquial meaning 'to show' of the root *deik- but also preserved the poetic expression 'to show forth praise'53 (diś- stómaṃ, δεῖκ- ὕμνον). Building on these results, it may be proposed that it was from this poetic use of the root that the speakers extracted the meaning 'to speak', generalized in Italic: e.g. *deike/o- *kanmen

⁵⁰ Porzig 1954: 113; Benveniste 1969: 107-9; Turcan 1982.

In principle, one might accept a two-stage process whereby the Anatolian reflex of the root *deik- first underwent the same semantic development as in Latin and then the root meaning 'to speak' was employed to refer to invectives of various kinds, for which ample parallels are available (cf. Palaic tarta- 'curse', Luwian tātariyamman- 'id.' derived from the same root as Hittite tar- 'to speak' by Melchert 1984: 35, or Luwian tarzandu (KBo 13.260) interpreted as 'pronunciare invettive, lanciare maledizioni' by Poetto 2000: 434–35). However, this scenario appears too contrived to carry conviction in the end.

For an intriguing reconstruction of the PIE term for 'sanction' on the basis of Luwian *ara* pa-ta, Tocharian B *erepate*, Latin *fas* and Greek θέσφατος see Barnes 2022–2023.

In the wonderfully parallel — though historically unrelated — King James Version wording.

'to show forth a song of praise' > 'sing a song' \rightarrow *deike/o- * $uerd^hom$ 'speak a word', hence Latin dīcere and (-)dĭcāre, Oscan **deikum** (inf.) 'to say', Umbrian deitu 'they will announce'. ⁵⁴ Schematically this can be represented as follows:



```
*deik 'to show, to point out, to direct' (colloquial register)
*deik *gʷrh²m² 'to show forth praise' → 'to sing a song' (poetic register)

(Vedic diś- gíram, Greek δεικ- ὕμνον, Latin dīcere laudēs)
→ *deik *μekʷm̞s 'to utter (any kind of) speech'
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The theory of the "poetic" origin of the meaning 'to speak' with the root *deik'- in Italic provides a good starting point to address other derivatives of the root whose meaning is similarly divergent, namely, Germanic *teihan, Hittite tekri- and New Phrygian (-)tetikhevoς. The only assumption that needs to be made is that the PIE root *deikُ-could be employed in verbal contexts related not just to laus, but also to vituperatio. In other words, the root *deik in the poetic language covered the entire merism "praise and blame": 56

```
*deik´ 'to show, to point out, to direct´ (colloquial register)

*deik´ *ḡw̄rh̄n̄m̄r̄ 'to show forth praise´ (poetic register)

(Vedic diś gíram, Greek δεικ- ὕμνον, Latin dīcere laudēs)

→ *deik´ *uek̄w̄m̄s 'to utter (any kind of) words´

→ *deik´ 'to speak´ (Latin dīcere)

→ *deik´ *h̄lenghōs̄r̄ 'to show forth blame´

→ *deik´ 'to blame, to condemn´

(Gmc. *teihan´ 'to accuse´, Phrygian τετικμενος´ condemned´,

Hittite tekri- 'condemnation´)
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This suggestion is not expected to persuade everyone to abandon Benveniste's and Porzig's "legal" theory, and perhaps the novel scenario can be combined with the old one: it is possible that the semantic development was from 'praise' to 'blame' as outlined above, and then from 'blame' to 'condemn, pass legal judgment', cf. Hittite hanna-i 'to judge' vis-à-vis Greek ὄνομαι 'blame'. A similar kind of semantic develop-

⁵⁴ The meaning 'to show' remained fossilized in a handful of isolated forms such as Latin index.

⁵⁵ Poetto (2000: 437 n. 20) has in fact tentatively proposed a direct comparison between New Phrygian (-)τετικμενος and Latin dicere.

⁵⁶ Cf. PIE *gwerh₂ 'to praise' (LIV² 210: Vedic gṛṇāti 'praises', Old Prussian girtwei 'to praise') > Hsch. δ 671 δερίαι · λοιδορίαι 'reproaches', δ 537 δε{ι}ριᾶν · λοιδορεῖσθαι. Λάκωνες 'to abuse'. Somewhat more complicated is the semantic development of PIE *h₂er- 'to speak solemnly' (Pinault 2014: 217–8), which gives not only Latin ōrāre 'to pray, plead, speak before an assembly', Oscan urust 'speak (in court)' (see Rix 1993: 331–5) and perhaps Ved. áryanti 'they praise' (RV 8.16.6+, unless 'treat as an ārya-), but also Greek ἀρά meaning both 'prayer' and 'curse' (pl.), κατάρᾶ 'curse' (Hdt. 1.165), Arcadian καταργος 'cursed' (IG 5.2 3.4–5) and Luwian ḫīrūt 'imprecation' (see Watkins 1993: 69–70).



ment may underlie Common Tocharian *pælæ (TB pele, TA pal 'rule, correct fashion, norm', TB pelaikne, TA märkampal 'law'), plausibly derived by Pinault 2020: 471 from the root *(s)pelH- 'say aloud / solemnly' (LIV^2 576), the derivatives of which include not only semantically neutral items such as Gothic spill 'tale, $\mu \tilde{\nu} \theta \circ \zeta$ ' or Hittite palwai-'cry out, recite', but also Latvian pelt 'to revile' and Tocharian AB päl-'praise'. ⁵⁷ Leaving this problem for future exploration, the modest purpose of the present paper is to show that the meanings of Germanic *teihan 'to accuse', New Phrygian (-) \text{Tetikhevo} \chi condemned' and Hittite tekri-'condemnation, derogation' can be explained based on the known usages of PIE *deik.

REFERENCES

- Adams, D. Q. (2005) Tocharian B *traksim* 'grains' and an Indo-European word for 'berry', in: *Journal of Indo-European Studies* 33/1–2, 1–8.
- Alexandrov, B. E. Sideltsev A. V. (2009[2011]) Hittite āššweni, in: Revue d'Assyriologie et d'archéologie orientale 103, 59–84.
- Anfosso, M. (2017) Du grec au phrygien et du phrygien au grec: changements et mélanges de code dans les inscriptions néo-phrygiennes (I^{er} III^e siècles après J.C.), in: *Camenulae* 18, 1–22.
- Barnes, T. G. (2022–2023) Anatolian and Indo-European legal language (I). Hittite āra, natta āra, a Hieroglyphic Luwian crux, and a Tocharian parallel, in: Die Sprache 55: 27–60.
- Benveniste, E. (1969) Le vocabulaire des institutions indo-européennes, 2 vols., Paris: Éditions de Minuit.
- Bonfante, G. (1946) Armenians and Phrygians, in: *Armenian Quarterly* 1, 82–97.
- Breyer, F. (2010) Die Etymologie von tekri-, einen hapax legomenon in den "Mannestaten Suppiluliumas", in: Altorientalische Forschungen 37/1, 95–103.
- (2013) New results and new questions on the reign of Suppiluliuma I, in: St. de Martino
 J. L. Miller (eds.), New Results and New

- Questions on the Reign of Suppiluliuma I [Eothen 19], Firenze: LoGisma, 11–32.
- Diakonoff, I. M. Neroznak, V. P. (1985) *Phrygian*, New York: Caravan Books.
- Dieu, É. (2016) L'accentuation des noms en

 -ā (-eh₂) en grec ancien et dans les langues
 indo-européennes: étude morphologique et
 sémantique [IBS 156], Innsbruck: Institut für
 Sprachen und Literaturen der Universität
 Innsbruck.
- Eichner, H. (1973) Die Etymologie von heth. meḥur, in: Münchener Studien zur Sprachwissenschaft 31, 53–107.
- Friedrich, J. Kammenhuber, A. Hoffmann, I. Hazenbos, J. (1974–) *Hethitisches* Wörterbuch, 2., völlig neubearbeitete Auflage, Heidelberg: Winter.
- Gorbachov, Ya. (2005) The origin of the Phrygian aorist of the type edaes, in:
 K. Jones-Bley M. Huld A. Della Volpe M. Robbins Dexter (eds.), Proceedings of the Sixteenth Annual UCLA Indo-European Conference, Washington D.C.: Institute for the Study of Man, 191–218.
- (2008) Nine observations on the Old Phrygian inscription from Vezirhan, in: Kadmos 47/1-2, 91-108.

Pinault notes that "[n]onetheless, the semantic aspect is not as easy as one would wish" and envisages two possibilities, either a semantic development from 'teaching' or from 'what is praised'. He admits that the meaning of *pælæ must have been "influenced by Skt. dharma- in the usage of Tocharian speakers"; under the theory proposed in the main text above, this influence would be responsible for the broadening of the original meaning 'legal ruling' vel sim. to include not only 'law', but also other meanings of dharma-.

- Groddek, D. (2011) Zur vermeintlich ägyptischen Herkunft von hethit. tekri-, in: Göttinger Miszellen. Beiträge zur ägyptologischen Diskussion 230, 37–48.
- Gusmani, R. (1958) Le iscrizioni dell'antico frigio, in: Rendiconti dell'Istituto Lombardo, Classe di Lettere 92, 870–903.
- Haas, O. (1966) Die phrygischen Sprachdenkmäler, Sofia: Académie Bulgare des Sciences.
- Hackstein, O. (2017) The phonology of
 Tocharian, in: J. Klein B. Joseph M. Fritz
 (eds.) Handbook of Comparative and Historical
 Indo-European Linguistics, Berlin Boston: de
 Gruyter, vol. 2, 1304–1335.
- Hämmig, A. E. (2013) Nevotan niptiyan, die Fluchformel der Stele von Vezirhan, in: Indogermanische Forschungen 118, 125–154.
- Hoffmann, K. (1969) Materialien zum altindischen Verbum [II], in: Zeitschrift für vergleichende Sprachforschung 83/2, 193–215 (reprinted in: Aufsätze zur Indoiranistik, ed. J. Narten, Wiesbaden: Reichert (1975), vol. 1, 288–310).
- Hofmann, D. (1972–1973) Fries. tiuche, deutsch zeche, griech. δίκη und Verwandte, in: Us Wurk: Tydskrift foar Frisistyk 21–22, 55–80 (reprinted in: Gesammelte Schriften, Band II: Studien zur friesischen und niederdeutschen Philologie, Hamburg: Buske (1989), 307–332). HW² = Friedrich et al. 1974–.
- Janda, M. (1997) Zur altphrygischen Areyastis-Inschrift, in: R. Gusmani — M. Salvini —
 P. Vannicelli (eds.), Frigi e frigio: Atti del 1°
 Simposio Internazionale, Roma, 16–17 ottobre
 1995, Roma: Consiglio Nazionale delle
 Ricerche, 271–277.
- Joseph, L. (1990) Old Irish *cú*: a naïve reinterpretation, in: A. T. E. Matonis D. F. Melia (eds.), *Celtic Language, Celtic Culture: A Festschrift for Eric P. Hamp*, Van Nuys, CA: Ford and Bailie, 110–130.
- Katz, J. T. (1998) Testimonia ritus italici: male genitalia, solemn declarations, and a new Latin sound law, in: Harvard Studies in Classical Philology 98, 183–217.
- Klingenschmitt, G. (1975) Tocharisch und Urindogermanisch, in: H. Rix (ed.), Flexion und Wortbildung. Akten der V. Fachtagung der

- Indogermanischen Gesellschaft (Regensburg, 9.–14. September 1973), Wiesbaden:
 Reichert, 149–163 (reprinted in: Aufsätze zur Indogermanistik, ed. M. Janda R. Lühr —
 J. Matzinger S. Schaffner, Hamburg: Kovač (2005), 133–148).
- Kloekhorst, A. (2008) Etymological Dictionary of the Hittite Inherited Lexicon, Leiden — Boston: Brill.
- (2015) The Old Phrygian word for 'feet': new readings in the 'podas'-inscription (G-02), in: *Kadmos* 54/1–2, 107–118.
- Koch, J. T. (1992) Further to Tongu do Dia toinges mo thuath, &c., in: Études Celtiques 29, 249–261.
- Kümmel, M. J. (2016) Das dünkt mich dunkel: germanische etymologische Probleme, in:
 B. S. S. Hansen B. Nielsen Whitehead —
 Th. Olander B. A. Olsen (eds.), Etymology and the European Lexicon: Proceedings of the 14th Fachtagung der Indogermanischen Gesellschaft, 17–22 September 2012, Copenhagen, Wiesbaden: Reichert, 219–233.
- LEIA = Lexique étymologique de l'irlandais ancien de J. Vendryes, vol. T–U, par les soins de E. Bachellery et P.-Y. Lambert, Dublin: Institute for Advanced Studies; Paris: Centre National de la Recherche Scientifique, 1978.
- Le Feuvre, C. (2021) Védique vádhri-, vrṣan-, dhārú-, grec *ἔθρις, ἄρσην/ἔρσην et θῆλυς: conversion et dérivation, in: H. A. Fellner M. Malzahn M. Peyrot (eds.) lyuke wmer ra: Indo-European Studies in Honor of Georges-Jean Pinault, Ann Arbor New York: Beech Stave, 319–330.
- Ligorio, O. (2016) Old Phrygian totin, in: Lucida intervalla 45, 33–39.
- Ligorio, O. Lubotsky, A. (2018) Phrygian, in: J. Klein — B. Joseph — M. Fritz (eds.), Handbook of Comparative and Historical Indo-European Linguistics, Berlin — Boston: de Gruyter, vol. 3, 1826–1831.
- LIV² = Lexikon der indogermanischen Verben. Die Wurzeln und ihre Primärstammbildungen, ed. by H. Rix, M. Kümmel, et al., 2nd ed., Wiesbaden: Reichert, 2001.
- Lubotsky, A. (1988) The Old Phrygian Areyastisinscription, in: *Kadmos* 27/1, 9–26.





- (1989) New Phrygian ετι and τι, in: Kadmos 28/1-2, 79-88.
- (1998) New Phrygian metrics and the δεως ζεμελως formula, in: J. Jasanoff — H. C. Melchert — L. Oliver (eds.) Mír Curad. Studies in Honor of Calvert Watkins [IBS 92], Innsbruck: Institut für Sprachwissenschaft der Universität Innsbruck, 413–421.
- (2004) The Phrygian Zeus and the problem of the 'Lautverschiebung', in: Historische Sprachforschung 117/2, 229–237.
- Manaster Ramer, A. (ms.) One more Hittite zinger: [nu] tekrin kuin tekri[skez]i :palawiti ... [
 GISP]AN SUD-si DIB-si.
- Marstrander, C. (1929) Sur la formule d'imprécation phrygienne, in: Norsk Tidsskrift for Sprogvidenskap 2, 290–305.
- Matzinger, J. (2005) Phrygisch und Armenisch, in: G. Meiser O. Hackstein (eds.), Sprachkontakt und Sprachwandel: Akten der XI. Fachtagung der Indogermanischen Gesellschaft, 17.–23. September 2000, Halle an der Saale, Wiesbaden: Reichert, 375–394.
- (2006) Interpretation sprachlicher
 Daten aus Rest- und Trümmersprachen.
 Das Fallbeispiel der Streitfrage um eine phrygische Lautverschiebung, in: Historische Sprachforschung 119, 190–210.
- McCone, K. (1991) The Indo-European Origins of the Old Irish Nasal Presents, Subjunctives and Futures [IBS 66], Innsbruck: Institut für Sprachwissenschaft der Universität Innsbruck.
- Meister, R. (1909) Die äolischen Demonstrativa ὅνε, ὅνι, ὅνυ und die Partikel νι (νε) im Phrygischen, in: Indogermanische Forschungen 25, 312–325.
- Melchert, H. C. (1984) Notes on Palaic, in: Zeitschrift für vergleichende Sprachforschung 97/1, 22–43.
- (1999) Two problems of Anatolian nominal derivation, in: H. C. Luschützky — H. Eichner (eds.), Compositiones indogermanicae in memoriam Jochem Schindler, Praha: Enigma, 365–375.
- (2017) Review of M. G. Maier, *Hethitisch* °uant- und *Verwan*(*d*)tes, Wiesbaden:

- Harrassowitz, 2013, in: Journal of the American Oriental Society 137/1, 178–179.
- (2021) Hittite neuter i-stems, in:
 H. A. Fellner M. Malzahn M. Peyrot
 (eds.), lyuke wmer ra: Indo-European Studies in
 Honor of Georges-Jean Pinault, Ann Arbor —
 New York: Beech Stave, 379–390.
- Miller, J. (2008) Joins and duplicates among the Boğazköy tablets (31–45), in: Zeitschrift für Assyriologie 98/1, 117–137.
- Monte, G. del (2009) *Le gesta di Suppiluliuma*, Pisa: Edizioni Plus.
- Nikolaev, A. (2012) Showing praise in Greek choral lyric and beyond, in: *American Journal of Philology* 133/4, 543–557.
- (2014) Hittite wattaëš 'birds', in: Münchener Studien zur Sprachwissenschaft 69, 257–267.
- Nussbaum, A. (2014) Greek τέκμαρ 'sign' and τέκμωρ 'sign': why both?, in:
 N. Oettinger Th. Steer (eds.), Das Nomen im Indogermanischen: Morphologie, Substantiv versus Adjektiv, Kollektivum. Akten der Arbeitstagung der Indogermanischen Gesellschaft vom 14. bis 16. September 2011 in Erlangen, Wiesbaden: Reichert, 215–260.
- Obrador-Cursach, B. (2016) Phrygian mekas and the recently discovered New Phrygian inscription from Nacoleia, in: *Indogermanische Forschungen* 121, 177–186.
- (2020) The Phrygian Language, Leiden Boston: Brill.
- Orel, V. (1997) The Language of Phrygians: Description and Analysis. Delmar, NY: Caravan Books.
- Panagl, O. Kowal, B. (1983) Zur etymologischen Darstellung von Restsprachen: am Beispiel des Phrygischen, in: A. Bammesberger (ed.), Das etymologische Wörterbuch. Fragen der Konzeption und Gestaltung, Regensburg: Pustet, 185–199.
- Pedersen, H. (1909) Vergleichende Grammatik der keltischen Sprachen, vol. 1, Heidelberg: Winter.
- Pinault, G.-J. (2014) Lexique et structure de la prière dans les langues indo-européennes, in: Ch. Guittard M. Mazoyer (eds.), La prière dans les langues indo-européennes. Linguistique et religion, Paris: KUBABA, 215–237.

- (2020) The dharma- of the Tocharians, in:
 V. Tournier V. Eltschinger M. Sernesi (eds.), Archaeologies of the Written: Indian,
 Tibetan and Buddhist Studies in Honor of Christina Scherrer-Schaub, Naples: Unior,
 461-492.
- Poetto, M. (2000) Quando 'dire' è 'maledire' in anatolico: Nuove risultanze dal luvio, in: C. Vallini (ed.), Le parole per le parole. I logonimi nelle lingue e nel metalinguaggio, Roma: Il Calamo, 433–440.
- Pokorny, J. (1959) *Indogermanisches etymologisches Wörterbuch*, Bern: Francke.
- Porzig, W. (1954) Die Gliederung des indogermanischen Sprachgebiets, Heidelberg: Winter.
- Puhvel, J. (2007) Hardly a Hittite 'hoe', in: D. Groddek & M. Zorman (eds.), Tabularia Hethaeorum: Hethitologische Beiträge S. Košak zum 65. Geburtstag, Wiesbaden: Reichert, 583–586.
- Rau, J. (2010) Indo-European Nominal Morphology: The Decads and the Caland System [IBS 132], Innsbruck: Institut für Sprachen und Literaturen der Universität Innsbruck.
- Rieken, E. (1999) Untersuchungen zur nominalen Stammbildung des Hethitischen, Wiesbaden: Harrassowitz.
- Rix, H. (1993) Oskisch úpsannam-uupsens und Zugehöriges, in: F. Heidermanns — H. Rix — E. Seebold (eds.), Sprachen und Schriften des antiken Mittelmeerraums: Festschrift für Jürgen Untermann zum 65. Geburtstag [IBS 78], Innsbruck: Institut für Sprachwissenschaft der Universität Innsbruck, 329–348.
- Sasseville, D. (2019) "To show" in Hittite and Palaic rituals, in: Altorientalische Forschungen 46/1, 22–32.
- Scheucher, T. S. (2012) The transmissional and functional context of the lexical lists from Hattuša and from the contemporaneous traditions in Late-Bronze-Age Syria, Ph.D. dissertation, Leiden University.
- Schrijver, P. (1995) Studies in British Celtic Historical Phonology [Leiden Studies in Indo-European 5], Amsterdam — Atlanta: Rodopi.
- (1997) Studies in the History of Celtic Pronouns and Particles [Maynooth Studies in Celtic

- Linguistics 2], Maynooth: Department of Old Irish, National University of Ireland.
- Schulze-Thulin, B. (2001) Studien zu den urindogermanischen o-stufigen Kausativa, Iterativa und Nasalpräsentien im Kymrischen [IBS 99], Innsbruck: Institut für Sprachwissenschaft der Universität Innsbruck.
- Schumacher, S. (1995) Old Irish *tucaid, tocad and Middle Welsh tynghaf tynghet re-examined, in: Ériu 46, 49–57.
- (2004) Die keltischen Primärverben:
 Ein vergleichendes, etymologisches und morphologisches Lexikon [IBS 110], Innsbruck:
 Institut für Sprachen und Literaturen der Universität Innsbruck.
- Sowa, W. (2007) Anmerkungen zum Verbalsystem des Phrygischen, in: *Indogermanische Forschungen* 112, 69–95.
- (2008) Studien zum Phrygischen, Göttingen:
 Cuvillier.
- Stüber, K. The Historical Morphology of n-Stems in Celtic [Maynooth Studies in Celtic Linguistics 3], Maynooth: Department of Old Irish, National University of Ireland.
- Tamsü Polat, R. Polat, Y. Lubotsky, A. (2020) An idol-shaped stele with an Old Phrygian inscription in the territory of Nakoleia, in: *Gephyra* 19, 45–67.
- Thieme, P. (1954) *Die Heimat der indogermanischen Gemeinsprache* [Akademie der Wissenschaften und der Literatur in Mainz, Abhandlungen der geistes- und sozialwissenschaftlichen Klasse, Jahrgang 1953, Nr. 11], Wiesbaden: Verlag der Akademie in Kommission bei Franz Steiner Verlag.
- Tichy, E. (1979) Semantische Studien zu idg. 1. *deik- 'zeigen' und 2. *deik- 'werfen', in: Münchener Studien zur Sprachwissenschaft 38, 171–228 (reprinted in Kleine Schriften, ed. A. Metzger, Bremen: Hempen (2018), 60–105).
- Tischler, J. (1993) Hethitisches etymologisches Glossar, mit Beiträgen von E. Neu und G. Neumann, Vol. 3, Fasc. 9 [IBS 20], Innsbruck: Institut für Sprachwissenschaft der Universität Innsbruck.





- Turcan, I. (1982) Dire et faire dans le vocabulaire des institutions indo-européennes, in: Études indo-européennes 1, 3–21.
- Veselinović, E. M. (2003) Suppletion im irischen Verb, Hamburg: Kovač.
- Watkins, C. (1993) Some Anatolian words and forms, in: G. Meiser (ed.) *Indogermanica* et Italica: Festschrift für Helmut Rix zum 65. Geburtstag [IBS 72], Innsbruck: Institut für Sprachwissenschaft der Universität Innsbruck, 469–478.
- Weiss, M. (2018) On the prehistory of Latin iūs, in: M. de Martino (ed.), The Comparative Mythology Today: Müller, Frazer, Dumézil. Perspectives from the Past to the Future. Atti

- del Primo Convegno del Comitato Scientifico di Speaking Souls — Animae Loquentes, Roma: Agora, 1–14.
- Woodhouse, R. (2006) Conditioned devoicing of mediae in Phrygian, in: *Studia Etymologica Cracoviensia* 11, 157–191.
- (2009) Devoicing of PIE mediae in Phrygian, in: Historische Sprachforschung 122, 208–227.
- Woudhuizen, F. (2021) The Phrygian language: an update, in: *Kratylos* 66, 1–17.
- Yamada, M. (2011) The second military conflict between "Assyria" and "Ḥatti" in the reign of Tukulti-Ninurta I, in: Revue d'Assyriologie et d'archéologie orientale 105, 199–220.