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Hipponyms in Indo-European: using register to disentangle the etyma

What was the distinction between the **márkos* and **$h_1$ék̂u̯o-* etyma for horse in Indo-European? It is argued that the distinction could be explained by a register based hierarchy that is likely to have existed in the proto-language. There is good evidence for the **$h_1$ék̂u̯o-* reflex being used in *Göttersprache* like semantic associative networks. The **$h_1$ék̂u̯o-* word is associated with the divine and appears in lexically identical poetic formulae and fixed locutions. On the basis of the multiple terms for horse in a number of the IE daughter languages, it is likely there was more than one term for horse in the IE period. A differentiation on the basis of register may have been a possibility, even at this early stage.

Keywords: hipponyms; language registers; Indo-European languages; etymology.

1. Introduction

The significance of the horse as an icon in the culture and myth of the Indo-Europeans has long been recognised.[1] The early written records concerning the horse are abundantly substantiated by archaeological finds. In the last few decades in particular the horse has gained an importance in scholarship following the publication of archaeological research suggesting that the horse was probably domesticated earlier than previously thought and that the Indo-Europeans may have been riders (Anthony 2007: 194–220; Mallory and Adams 1997: 276; Nobis 1971). The horse, as an emblem of speed, may have been the vehicle by which the Indo-European language disseminated, facilitating its break-up into the respective dialects (Anthony 2007: 26).

Given that the horse was so embedded in the culture of the earliest Indo-Europeans, it is surprising that hipponyms have attracted so little linguistic commentary.[2] The majority of the literature on the subject can be divided into purely etymological accounts, and treatments which aim to explain in cultural-historical terms the role the horse played in Indo-European society. The purpose of this article is to further the discussion on the problematic etymology of **$h_1$ék̂u̯o-* and to tease apart the semantic distinctions between the different etyma for horse by using the sociolinguistic notion of register.

2. Overview of the proto-lexicon: the PIE horse

Benveniste's semantic reconstruction of **pék̂u* first as 'movable wealth,' 'personal chattels' then 'livestock' and not the chronological reverse was a significant reinterpretation: deriving the

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[2] I use the term hipponym to denote kinds of horses as well as proper names. I realise my use of the word may be irregular: anthroponyms tend to refer to personal names and hydronyms names for rivers. Other uses of '-onym' suggest this need not be the case, however, and there is a degree of terminological inconsistency.

word for 'livestock' from 'movable wealth' and distinguishing between **wih$_x$rós* (Mallory and Adams 2006: 544) or **wī-ro-* 'man' (Watkins 2000: 101) and **péḱu* underpinned the pre-eminence of Indo-European nomadic pastoralism (Benveniste 1973: 40–51). It is perhaps no coincidence that the clear significance of livestock as 'movable wealth' correlates with generally strong etymological evidence for the word-field implicative of PIE stockbreeding: a number of the key etyma survive as semantically unshifted cognate reflexes into the historically attested daughter languages of Indo-European. This is clearly evidenced in **g^{w}ōus* 'cow' (Gmc. **kōuz*, OE *cū*, Lat. *bōs* also represented in Slav. **govędo* 'head of cattle'); **ḱ(u)wōn-* 'dog' (Goth. *hunds*, OIce. *hundr*, Lat. *canis*) and **sū-s* 'pig' (Eng. *swine*, Lat. *sus*, Skt. *su-*) (Mallory and Adams 2006: 530; 532; 549).

Paradoxically, this is not the case with **h$_1$éḱu̯o-* 'horse' where the well-attested form has undergone considerable diatopic variation, leading to a displacement in just about every modern European language (only the fem. Sp. *yegua*, Rom. *iapă* 'mare' and Sc. G. *ech* 'horse' remain) (Wodtko et al. 2008: 231–3).[3] This displacement has left considerable internal diversity within specific sub-groups of Indo-European as in the case of Germanic (Eng. *horse*, NHG *Pferd*, Sw. *häst*), which is particularly perplexing as it concerns a relatively small geographical area.

The absence of relics marking the lexical opposition between the wild and domestic horse has, however, a number of ethno-historical repercussions for PIE homeland theories since the horse is employed as a major marker of the Indo-Europeans.[4] Gamkrelidze-Ivanov (1995: 464) and Buck (1949: 167) claim that we can be reasonably sure that the horse was at least partially domesticated by the Indo-European period based on the very wide attestation of the **h$_1$éḱu̯o-* form. Cited as additional evidence is the fact that it figures prominently in the personal names of the earliest Indo-Europeans: Skt. *Aśva*-cakra, OPers. Vist-*aspa*, Gr. *Hípp*-arkhos and Phil-*ippos*, Gaul. *Epo*-pennus and OE *Eomaer* (Mallory 1989: 119). To be added to these European *reliktwörter* from **h$_1$éḱu̯o-* should be Lithuanian *ašva* 'mare' and *ašvienis*' 'workhorse'; Venetic *ekvon* 'horse' and Old Cornish *ebol* 'foul' (Wodtko et al. 2008: 230–31). It is interesting to note that the words for 'mare' seem more resistant to replacement than those for 'stallion' or 'horse'. Moreover, the word is also extended to deities such as the divine twins of Indic religion, the *Aśvin* (Skt. *áśva*) (Wodtko et al. 2008: 230–31) and the Gaulish goddess *Epona* (Gaul. *epos*) (Delmarre 2003: 163–164). We are unable to infer, however, from the proto-form **h$_1$éḱu̯o-* alone anything about horse-domestication. We can be sure that the horse was definitely known to the Indo-European people before the language split into its respective dialects, i.e. before c. 3000 B.C. but any observations beyond this are likely to be speculative. The attestation does not imply that horses were domesticated, let alone possessed, ridden or used for food or in any other way. We would have to rely on archaeological data for that.

2.1. The **h$_1$éḱu̯o-* etymon

The etymology of **h$_1$éḱu̯o-* (Wodtko et al. 2008: 230) is a persistent problem and has incited a considerable amount of debate amongst scholars. The philological issues pertaining to this particular proto-form is well endowed with descriptive and exegetic matter and I will not at-

[3] One might also posit **h$_1$éḱwos* (Mallory and Adams 2006: 50). The Anatolian evidence makes it quite clear that **h$_1$éḱwos* is a post-Anatolian innovation and that Proto-Anatolian (and PIE also) had **h$_1$eḱu-*, and **h$_1$éḱwos* was a thematicization thereof.

[4] For almost a hundred years, almost every region between western Europe and the Hindu-Kush, Central Asia, and the Levant has been claimed as the PIE homeland. See Anthony & Brown (2011: 131–160); Mallory and Adams (2006: 443–460); Anthony (2007).

tempt to summarize the entire history of the research since there is a degree of agreement regarding the derivation. The nature of the etymological problem is as follows: the form *h_1é$\hat{k}_u$o- is often cited as a base word (Pokorny 1959: 301–302) and yet the form must be derived from some other underlying root; the etymology is obscure and no verbal root has thus far been posited. *h_1é$\hat{k}_u$o- is generally derived from the lengthened *o* grade adjective *$\bar{o}\hat{k}$u- 'swift' or 'the swift one' (Watkins 2000: 23) giving us Gr. *ὠκύς* 'swift', Lat. *ocius* 'swifter' (Ernout and Meillet 1979: 457); Lat. *acupedius* (Ernout and Meillet 1979: 7) 'swift-footed'. Wodtko et al. (2008: 230) posit *HeH$\hat{k}$ ('quick'), possibly a derivative of the lost *u*-stem *$h_1$óé$\hat{k}$-u- ('speed'). Anatolian shows the *u*-stem of the horse-word directly, the morphological "difficulty" is plain thematization. Anatolian seems to directly attest to a *u*-stem *$(h_1)e\hat{k}$'u- 'horse', so it is likely this had been the original form while core Indo-European was renewed by thematization (see above all Kloekhorst 2008: 239; 224 on Ved. *āśu-* < *h_1o-$h_1\hat{k}$ '-*u*-).

In the absence of any posited verbal root (and I suspect that none will be forthcoming), Hamp's argument that the basis of derivation is an adjective, not a verbal base and that the phonological shape of the IE adjective is assured by the cognates: Skt. *āśú*, Avest. *āsu*, Gr. *ὠκύς*, is undoubtedly the most convincing (Hamp 1990: 213–216).The reconstruction of the IE adjective *$\bar{o}\hat{k}$u- is idiosyncratic: 'it cannot be the zero grade of any base and the antonymic adjective fails to conform to the canonical shape of its class' (Hamp 1990: 212). Hamp may be correct in this regard: the vowel grade in the adjective is curious as indeed is that of the noun itself and this may relate directly to the point that there is no discernible underlying verbal root. In terms of 'not conforming to the canonical shape of its class,' the rationale here is that the principal formation for IE antonymic stative adjectives was a suffix *ú* (with zero grade of the base).[5] One potential pitfall of Hamp's argument is that *h_1é$\hat{k}_u$o-, at the time the form was created, would only have meant something like 'rapid' or possibly 'the rapid one'. If Hamp is correct, this may mean that the Indo-Europeans needed a term they could use whenever they wanted to refer to 'animal'. Bammesberger (1994: 33–53) adopts this hypothesis and takes it to the next logical stage in suggesting that there must have been another word meaning 'animal' and that this term may have been used in conjunction with the *h_1é$\hat{k}_u$o- word. Perhaps the horse was referred to as the *h_1é$\hat{k}_u$o- *X* and over time the *X* was omitted, leaving *h_1é$\hat{k}_u$o- being used in an elliptical sense. In my opinion, it suffers from one major weakness: we should not assume that there *needed* to have been a PIE term for 'animal'. Had there been such an etymon, it is not clear what its derivation would have been. A study of the generic word 'animal' would show considerable cross-linguistic variation in terms of etyma. Languages do not seem to share or inherit words for this. Greek uses *zōon*, but this might be a recent formation. It is the exact equivalent of TchB. *śaiyye* 'sheep/goat,' TchA. *śāyu* some sort of 'animal' [species unknown] (< PIE *g^{w}yéh$_3$wyom* 'animal') (Mallory and Adams 2006: 136). The Tocharian meanings would be innovatively narrowed. Latin uses *bestia* and has quite different connotations; Germanic languages tend to use the 'deer' word, cf., NHG *Tier*, but it is often specialized to a greater or lesser extent.

Pârvulescu's argument that *h_1é$\hat{k}_u$o- or *ékwos* (as he posits) represents a 'work-horse' or a 'nag' is unconvincing. His argument is based on the premise that most of the words for horse derive from terms designating pack or draft horses (Lat. *caballus*, NHG *Pferd*, Lith. *arklys*) (Pârvulescu 1993: 71–74). And yet, none of these words are *h_1é$\hat{k}_u$o- reflexes but are, in the case of NHG *Pferd* at least, much later innovations in the language. The other premise for this argument is the fact that the Armenian *ēš* means 'ass' and not 'horse', ignoring all the other attesta-

[5] Indo-European did not allow adjectives in **ú* to be employed as final elements in a compound, making **$\bar{o}\hat{k}$u-* divergent in its structural form and its grammatical behaviour.

tions that cross language family boundaries and consistently refer to a horse. The fact that one reflex in one language may have undergone a kind of semantic shift should surely not be used as an argument for the generic term for horse to mean a work-horse. Furthermore, we have almost no clarity on such relatively small semantic discrepancies between 'horse' and 'ass' in the IE period. There are admittedly linguistic difficulties (as previously mentioned) with the posited derivation; it is, however, by far the most plausible etymology and the evidence from Indo-European poetry is actually quite compelling with the significance of the 'swift' notion being present cross-linguistically to a degree in attested poetic forms.

2.2. Multiplicity of etyma for horse

There is a body of literature that addresses the question of posited etyma for the word for horse in Indo-European. The most comprehensive studies of the PIE lexicon have been undertaken by Wodtko et al. (2008), Mallory and Adams (2006), Benveniste (1969; 1973) and Gamkrelidze-Ivanov (1995). Benveniste's account was a landmark ethno-semantic study of the proto-lexicon and addressed a number of wide-ranging issues relevant to Indo-European society but failed to discuss horses. Gamkrelidze-Ivanov's and Wodtko et al. (2008) are the most comprehensive analyses of the proto-lexicon that include a discussion on horses. Wodtko et al. (2008) is an etymological dictionary of PIE nominals.

The majority of the scholarship to date has focused on either the difficulties of identifying the *$h_1\acute{e}\hat{k}_{\underset{\frown}{u}}o$- etymon or the distinction between *$h_1\acute{e}\hat{k}_{\underset{\frown}{u}}o$- and **márkos*. As previously mentioned, it is clear from the level of cross-linguistic attestation that *$h_1\acute{e}\hat{k}_{\underset{\frown}{u}}o$- or a similar form was the word used for horse before the splitting up of Indo-European into its respective dialects. It is also evident that **márkos* was a Celto-Germanic etymon whose etymology and semantic distinction from *$h_1\acute{e}\hat{k}_{\underset{\frown}{u}}o$- remain problematic. These are generally speaking the only regularly posited etyma for the generic word for horse; only one of these, the *$h_1\acute{e}\hat{k}_{\underset{\frown}{u}}o$- form, can claim uncontroversially to be Indo-European as it is the only form attested in more than two of the IE daughter languages. Admittedly, Gamkrelidze-Ivanov and Mallory-Adams also posit *$\hat{g}^hei$- (Rix 2001: 174) as the root of Arm. *ji* and Skt. *háya*: the root *$\hat{g}^hei$- has the sense of 'impels, stimulates, drives' (Mallory-Adams 1997: 274). The other etymology to be found in Mallory-Adams is **mendios* which is posited as the derivation for Rom. (< Dac.) *mânz* 'colt', Thrac. *Μεζηναι* (name of horse riding divinity), Illy. *mandos* 'small horse', Mess. *Iuppiter Menzanas* (name of divinity to whom horses were sacrificed), Alb. *mëz* 'foal' cf. Lat. *mannus* 'small horse' (Mallory-Adams 1997: 274). Beside *háya-/ji* and **mendios*, we should put the English *foal*, Greek *pōlos* 'foal', Albanian *pelë* 'mare' (as if < *$p\bar{o}lnah_2$-) and now apparently TchB. *peliye* 'mare's' [adj.] group. Albanian *pjell* 'give birth [of animals]' (< **pele/o-*); the Albanian meaning presumably generalized from 'to foal'.

It is clear from these examples that there may have been several etyma giving us a number of reflexes which may have been subsequently lost in the Indo-European daughter languages. These scattered lexical relics, such as Rom. *mânz,* are significant since they do not represent synonyms for *$h_1\acute{e}\hat{k}_{\underset{\frown}{u}}o$- and its reflexes, but are motivated instead by basic characteristics such as size and age of the horse. It is reasonable to argue that such onomasiological distinctions may have been present during the Indo-European period since there were presumably occasions when a higher degree of semantic specificity was required. Specificity is clearly a very vague notion in the Indo-European semantic context. One might speculatively posit a number of other roots that could have given us other terms that have been subsequently lost. These etyma can be tabulated as follows:

Etyma/roots	Comments and reflexes
*$h_1\acute{e}\hat{k}_{\underline{u}}o$-	Uncontroversially IE. Attested in every IE sub-group except for Slavic and Albanian (Lat. *equus*, Skt. *áśvā*, Av. *aspa*, OIce. *jór*, OE *eoh* etc.). Generally derived from the lengthened *o* grade adjective *$\bar{o}\hat{k}u$- 'swift' or 'the swift one' Form has undergone considerable diatopic variation, leading to the displacement of the *$h_1\acute{e}\hat{k}_{\underline{u}}o$- etymon in every modern European language (exceptions Sp. *yegua*, Rom. *iapă* 'mare' and Scottish Gaelic *ech*). The *$h_1\acute{e}\hat{k}_{\underline{u}}o$- reflex is still used in modern Iranian dialects Contrary to Gamkrelidze-Ivanov (1995: 464) and Buck (1949: 167), all we can infer from *$h_1\acute{e}\hat{k}_{\underline{u}}o$- form is that the horse was definitely known to the IE people before the language split into its respective dialects, i.e. c. 3000 B.C. The linguistic form itself or its attestation does not tell us anything about horse-domestication
**márkos*	Celto-Germanic isogloss (Ir. *marc*, Wels. *march*, Eng. *mare* etc.), but often treated as IE. A *$mh_2érkos$ reconstruction seems untenable
**mendios* (Mallory-Adams 1997: 274)	> Rom. (< Dac.) *mânz* 'colt', Thrac. *Μεζηναι* (name of horse riding divinity), Illy. *mandos* 'small horse', Mess. *Iuppiter Menzanas* (name of divinity to whom horses were sacrificed), Alb. *mëz* 'foal'. Cf. Lat. *mannus* 'small horse'
*$\hat{g}^hei$- 'to impel; to stimulate; to drive' (Rix 2001: 174)	> Arm. *ji* and Skt. *háya* 'horse'
*h_2erh_3- 'to plough' (Rix 2001: 272)	> Lith. *ariù* 'to plough' > Lith. *arklys* 'horse'
**orghi*- 'scrotum'(Pokorny 1959: 782) (Cf. *$h_1endrós$ 'scrotum' Mallory and Adams 2006: 553)	> Lith. *eržilas* 'stallion': Arm. *orji-k*; 'scrotum'; Arm. *orji* 'not castrated' (Pokorny 1959: 782)
*d^hreg^h-(Rix 2001: 154) 'to pull; to tug'	> Lett. *dragât* 'to tear, to rip' (Pokorny 1959: 209)>Lett. *drigelts, drigants* 'stallion', Lith. *drigãntas* 'stallion'[6]
**horsam* (Skeat 1910: 277) < **kers* 'to run' (Rix 2001: 154) /*(*s*)*ker*'to jump' (Rix 2001: 556): Lat. *cursus* (Pokorny 1959: 583); (Ernout and Meillet 1979: 160)	> OHG *(h)ros*, OIce. *hross*, NHG *Ross*, Eng. *horse*
**hānhista*-'the fastest or the best at jumping' (Jóhannesson 1956: 179) < * $\hat{k}eh_2\hat{k}$- : Lit. *šóku* 'to jump' (Rix 2001: 319)	> OHG *hengist*, OIce. *hestr,* NHG *Hengst*

Table 1: Multiplicity of etyma for horse

2.3. *$h_1\acute{e}\hat{k}_{\underline{u}}o$- and **márkos*

Previous literature on the question of the distinction between the two widely reconstructed forms for horse (*$h_1\acute{e}\hat{k}_{\underline{u}}o$- and **márkos*) can be divided into purely descriptive statements and treatments which aim to explain the distinction in the context of a more all-embracing philological or cultural-historical theory. Examples of the former include Martinet (1987: 241); Meid (1989: 14); Sergent (1995: 173) and Green (1998: 148). Both Martinet and Sergent consider **márkos* to be the most ancient term for horse without giving any explanation and Meid thinks the *$h_1\acute{e}\hat{k}_{\underline{u}}o$ form could itself be a loanword from a region near the eastern Steppes.[7] Green

[6] Pokorny (1959: 210): a loan word from Polish *drygant*.

[7] Since most IE languages share the same *$h_1\acute{e}\hat{k}_{\underline{u}}o$- form and it does not appear to be a loan-word or a *Wanderwort* in them, this is unlikely but not impossible.

claims that *$h_1\acute{e}\hat{k}_{\underset{\smile}{u}}o$- was a draught-animal and that **márkos* was a horse used for riding, better suited for combat. Furthermore, Green claims that **márkos* was borrowed from Germanic into Celtic and not *vice versa* because Germanic underwent the sound-shift of *g* to *k* and certain animal names were formed with a *g* suffix.[8] Beckwith (2009: 397) believes **márkos* meant orginally a 'chariot warrior's horse' based on the correspondence between the 'young warrior words' from the PIE zero grade root **mr* / *o*-grade root **mor* ('die, death, mortal, youth') and the derived word **márko*s 'horse'.

Work aimed at providing specifically a theory that attempts to explain the difference in the two etyma has been undertaken by Gamkrelidze-Ivanov (1995: 464–478) and Mallory-Adams (1997: 273–274). The two respective hypotheses can be summarized as follows:

Mallory-Adams (1997: 274): it is implied that **márkos* is the 'wild horse' and that *$h_1\acute{e}\hat{k}_{\underset{\smile}{u}}o$- (Mallory-Adams posit **ékwos* and not *$h_1\acute{e}\hat{k}_{\underset{\smile}{u}}o$-) is the 'domesticated horse'. The explanation is a philological one: Mallory-Adams contend that a derived feminine in *-eh_a- denotes a 'domestic animal' and a derived feminine in *-ih_a- denotes a 'wild animal' (cf. *$ulkw\acute{i}h_a$- 'she-wolf'). They suggest that **márkos* may have referred to a 'wild horse' in the western IE dialects in opposition to *$h_1\acute{e}\hat{k}_{\underset{\smile}{u}}o$-, the 'domesticated horse'. They are sceptical about **márkos* being an Asiatic loan as they would expect the form to be more widespread than the Celto-Germanic reflexes suggest.

Gamkrelidze-Ivanov (1995: 473–474): the distinction is accounted for by the fact that *$h_1\acute{e}\hat{k}_{\underset{\smile}{u}}o$- (Gamkrelidze-Ivanov posit **ékwos* and not *$h_1\acute{e}\hat{k}_{\underset{\smile}{u}}o$-) is a 'harnessed horse' and **márkos* is a 'riding horse'; **márkos* is considered to be an Altaic loan that can be dated back to the first millennium B.C., ruling out the possibility that it was borrowed from Hunnic. The Altaic loan explains the prevalence of the **mor* reflexes in Altaic and various other Asian languages.

In my view, neither the descriptive statements nor the proposed theories provide us with an adequate explanation for the difference between these two terms. The difference may have been just diatopic and so they would not have been competing forms.[9] Both hypotheses demonstrate how difficult it is to control the material.[10] In terms of the Mallory-Adams hypothesis, there is one key observation to be made: in the absence of any strong supporting evidence, it seems that suffixes do not easily map onto semantic load and it is especially difficult to establish a relationship between a suffix and a tame/wild distinction. It is unclear what the connection could be between the quoted suffix and the horse. With the *$ulkw\acute{i}h_a$- 'she-wolf' example, the suffixed form may denote a derived feminine but the corresponding masculine form is not suffixed: it is the *luk^wo- > Lat. *lupus* (Watkins 2000: 102) 'wolf' word, which is a perfectly straightforward IE *o* stem and has no relevance to the domesticated *versus* wild distinction. The wild/domesticated distinction is a valid way to approach the problem though as there is often a difference between terminology referring to wild and domesticated animals. Wild animals often only have one name (bear, wolf, beaver etc.), whereas there is a wealth of distinctions in the case of domesticates and they are referred to by multiple terms such as 'horse' / 'stallion' / 'gelding' or 'sheep' / 'ram' / 'wether'. This clearly reflects the fact that domesticated

[8] It is not clear how this argument works since Germanic does not have a *k* suffix; its form of the root ends in *h* (or a voiceless velar fricative), which is derived from IE *$\hat{k}$. It would seem that if the Celtic form has come through Germanic, it has come from a form completely unattested in Germanic. Note that in Germanic it is the feminine derivative of this word which remains (*mare*), not the masculine.

[9] There may have been more than two IE words for horse. The other posited forms may have been more widely attested at an early stage in the language but we are left with only a small number of reflexes.

[10] Both accounts make the false assumption that **márkos* was an IE term, but there is no linguistic evidence for it.

animals are used for economic needs (food source) and are thus subjected to 'biological interventions' such as castration (Pârvulescu 1993: 70).

The other problem with their reasoning is that it would be surprising to evidence, in the Celto-Germanic isogloss at least, a wild animal being referred to as the generic for a domesticated horse; this would be akin to the 'zebra' word being the generic form for horse in English. However, Mallory-Adams' scepticism regarding the **márkos* Altaic loan hypothesis is justified: it is difficult to reconcile the western distribution of the IE cognates with the eastern distribution of its putatively non-IE sources.

Gamkrelidze-Ivanov's hypothesis starts with the dubious distinction between a 'riding horse' and 'harnessed horse': the two terms appear to be bordering on the same concept. The idea that the IE sub-groups inherited the **h*$_1$*éḱ̯u̯o-* term but that the **márkos* form came into Celtic and Germanic as a loanword when horse-riding was introduced in the first millennium B.C. (ultimately from the non-IE languages of Eurasia) is convenient since it suggests that the new term must have some marked functional difference if it was to be useful and therefore adopted. It is self-evident that a new term entering the language is likely to be marked in some way to differentiate it from the existing term and the perceived need for this semantic distinction seems to be the basis for their argument. There can be, however, no linguistic explanation for their alleged semantic derivation, i.e. the 'riding' *versus* the 'harnessed' distinction. Implicit in this assumption is also the fact that the Celts were not riding horses at the time of the first millennium B.C. and yet we cannot be sure this is the case (Green 1995: 5). If they were riding horses at that time then that does of course remove the requirement to have a neologism in the language to designate this specifically, since the existing term would have presumably sufficed.[11] Alternatively, if the Proto-Celtic people of the Urnfield culture were not horse riders, then it too seems surprising that they would adopt the term 'riding horse' as their own generic term, if they did not carry out the activity themselves.

Ultimately, Gamkrelidze-Ivanov undermine their own argument that **márkos* is an Altaic loan and represented the 'riding horse' when the reader is informed that Asia is ruled out as a centre of horse domestication as the Przewalski horse has sixty-six pairs of chromosomes whilst the domestic horse has sixty-four pairs, implying that the Asian horses were not domesticated and therefore presumably not ridden. It is also stated that the Altaic form **mor* must have originally referred to the same domesticated horse known further west.[12] Consequently, the domesticated horse entered Central Asia from the west and not from the east. Assuming the above is correct, the **márkos* form would actually represent a Celtic or Celto-Germanic loan and not an Altaic loan. The Gamkrelidze-Ivanov argument is then a *circulus vitiosus*: they wish the **márkos* etymon to be an Altaic loan and represent a 'riding horse' and yet, based on their own assumptions, the **mor* form referred to a domestic horse and the horse was probably not domesticated in Asia. It is difficult to see how their hypothesis could be accurate if either of these assumptions were correct.

Notwithstanding this, Gamkrelidze-Ivanov argue that the Celto-Germanic isogloss **márkos* and Chinese *ma* < **mra-* were derived from the Altaic (specifically, in Mongolian, the Tungusic family and Korean) **mor*. It is difficult to disprove the Gamkrelidze-Ivanov theory but the al-

[11] I am not necessarily assuming this: it seems plausible that they did use horses but they may not primarily have ridden them (Celtic horses were relatively slender). They could have been beasts of burden or drawn vehicles of some sort.

[12] **márko*s derives from Altaic **mor*, attested in *marin* in Mongolian and *murin* in Tungusic. No explanation is, however, given for the *k*(*h*) extension to the root in both Germanic and Celtic, a derivation which does not seem to work by itself.

leged linguistic evidence (Mongolian **mori-*, Korean *mal*, Manchu-Tungus *murin*, Burmese *muran*, Tibetan *mra*) should be viewed very critically as there is no proof of a concrete linguistic or non-linguistic relationship between Celto-Germanic and these Asian and Altaic languages. Janhunen (1998: 415–420) dismisses the Altaic hypothesis entirely because none of the relevant East Asian languages show any evidence of being derived from a Pre-Proto-Mongolian reconstruction of the type **mor-ka* or **morkin*. Furthermore, there is no evidence of linguistic contact between Mongolian and an early form of Indo-European, the earliest documentable linguistic contact in this area being between Tocharic and Sinitic and Tocharic and Turkic. Janhunen is unable to find any plausible linguistic explanation for the similarity between **márkos* and **mor* and considers the resemblance purely 'coincidental'. It would seem the major language families in East Asia, Japanese, Korean and Tungusic borrowed the word from Mongolian, the main intermediator of Central Asian influences to Northeast Asia (Janhunen 1998: 419).

We are unable to say with any certainty what the distinction (if there needs to be one) between **márkos* and **h₁ék̂u̯o-* could have been exactly: we can only opine on what was most probable given the limited linguistic and archaeological evidence that is available to us. The basic conclusions from this discussion can be summarized as follows: a) the **márkos*/**h₁ék̂u̯o-* distinction is unlikely to reflect the wild/domesticate distinction; b) there is no linguistic or non-linguistic evidence for **h₁ék̂u̯o-* being a 'harnessed horse' or **márkos* representing a 'riding horse'; c) the Altaic loan hypothesis is flawed as there is no evidence of contact between the Mongolian and the early Indo-European people and we know that the East Asian reflexes are derived from the proto-Mongolian form; d) the similarity between **márkos* and **mor* is probably coincidental and is not explained by an Altaic, Asiatic or Celtic loan scenario. Janhunen has advanced the discussion in one key respect: we are now confident that **márkos* is not an Altaic loan. We are still left uncertain as to what its origin can be and how it related to **h₁ék̂u̯o-*. In assessing its origin, we need to attempt to establish the likelihood of the etymon being a loan: an argument can be made for it being a loan word and potentially having a non-Indo-European component. The form does not etymologise well and it is attested only in Celto-Germanic; it would need to be an early loan since the term has undergone the relevant sound changes in Germanic at least. Furthermore, if **márkos* were not a loan but an Indo-European relic, one would probably expect it to have survived in other isolated, marginal and archaic varieties of Indo-European. If it survived in, say, Celtic, Germanic and Hittite, that would be much stronger support than it being a lexical relic in just Celtic and Germanic. It is difficult to perceive how an ancient, arguably generic term, would have survived in just these two language families just as it would be challenging to explain why an East Asian word for horse derived from Indo-European would be based on any lexeme other than **h₁ék̂u̯o-*.

It is almost impossible to determine the semantic motivation behind the **márkos* form and how it differentiated itself from **h₁ék̂u̯o-* and any proposal is likely to be speculative. There is reasonably good evidence, however, for **h₁ék̂u̯o-* representing the generic term for horse: the word is widely attested in almost all of the Indo-European language families; it is found across nearly all the divisions within Indo-European and so is likely to antedate them; it is an ancient term in Indo-Iranian too since it shows all the expected early linguistic development and geographically it is unlikely to be a *Wanderwort* there; the **h₁ék̂u̯o-* word has early mythological associations in Indo-Iranian and seems to be fairly basic to the early religion and cultural traditions of the Indo-Iranians.[13] If the distinction was not simply diatopic, this would leave **márkos* referring to some other kind of horse — a work horse, a plough horse, a nag, a war horse,

[13] One thinks of the important Vedic kingship ritual involving horse sacrifice, the *Aśvamedha*. There are two traditional *comparanda* to this event: the Roman *October Equus* and the Irish kingship inauguration rite known as *feis*.

a steed or a charger, perhaps. The possibilities are endless and little would be gained by entertaining such speculation, but Beckwith's (2009: 397) suggestion is not implausible.

3. The meta-linguistic tradition of the Indo-European *Göttersprache*

The idea that there was a binary or multiple register-based synchronic hierarchy in the lexicon with the top echelon labelled an Indo-European *Göttersprache* goes back to Güntert (1921: 1–55) and may assist us in our analysis. The identification of these formulae initiated further research by Lazzeroni (1957: 1–25); Schmitt (1967: 142–195); Campanile (1977; 1987); Toporov (1981: 189–251); Watkins (1970: 1–17); (1982: 104–120); (1992: 391–419); (1995: 179–193) and Hajnal (2008: 457–81) into the so-called Indo-European poetic tradition and in particular the Indo-European *Dichtersprache*.[14]

A number of linguistic equations have been proposed and Güntert observed that these formulaic sequences were often characterised by a lexicon which for reasons relating to the culture had an immanent semantic charge or mark. These semantically marked terms were generally assigned to the 'language of gods', a special stylistic register, and the unmarked 'language of men' (Watkins 1970: 2), creating a binary lexical opposition. The result of this hierarchy in the lexicon was that precisely the same referent was often described in two very distinct levels of discourse.

The notion of language and its users being linguistically segregated on the basis of register is well-established: one thinks of the complex Celtic hierarchy of poets and their language (seven grades of Filidh and eight grades of Bard), or of the alleged *Geheimsprache* of the Shetland fishermen,[15] not to mention runes.[16] The *Göttersprache* with which I am concerned has a number of clear characteristics. Firstly, it is a system of poetical metaphor and cryptic kennings. The semantically and aesthetically marked 'language of the gods' may be repeated as a formulaic expression (sometimes comprising semantically charged epithets). The 'language of the gods' has the effect of 'distancing the poetic message from ordinary human language' and often avoids the unpoetic stigmatized lexicon of the 'language of men' by using its own special vocabulary, as in the names of things in Irish *bérla fortchide na filed*, 'obscure language of the poets' or the Vedic *devānām gúhyā nāmāni*, 'secret names of the gods' (Watkins 1995: 182–183).[17] The obscurity is almost certainly intentional with the aim being to protect the spoken, poetic message and thus maintain its divine secrecy. The *Göttersprache* referents often have considerable cultural weight attached to them and may have been associated with other culturally salient icons, creating associative semantic networks by which words and concepts were interconnected.

It can be argued that this poetical doctrine would have conceivably been present in Indo-European society as a spoken tradition (Anthony 2007: 466). The work of Watkins (1970; 1982; 1992; 1995) and Schmitt (1967) in particular has illustrated how widely attested these poetic

[14] The distinction between *Dichtersprache* and *Göttersprache* is to be clearly understood. *Dichtersprache* refers simply to the poetic language that is attested as cross-linguistic phrasal correspondences. *Göttersprache* concerns itself with a clear dichotomy between 'language of gods' and 'language of men'.

[15] It is claimed that the fishermen of the Shetlands had a secret code and a system of synonyms and metaphors not dissimilar to that of the *Alvíssmál*.

[16] Other genres of oral traditions that appeal to certain registers may include: folk tales, oral poetry, riddles, language of rituals, language of hunting/fishing, healing language, Japanese respect register (honorifics), language of mantra/incantations etc.

[17] The most highly marked form of discourse in Irish was that which is was archaic, uniquely poetic and obscure.

formulaic sequences were with aesthetically marked versus aesthetically unmarked appellations of the same entity appearing in Greek, Vedic, Old Norse, Old Irish, Avestan and Anatolian. Examples from Ancient Greek may include: ὃν Βριάρεων καλέουσι θεοί, ἄνδρες δέ τε πάντες Αἰγαίων (Iliad 1 V 403) 'which the gods call Briareos, but men Aigaion'; ὃν Ξάνθον καλέουσι θεοί, ἄνδρες δὲ Σκάμανδρον (Iliad 20 V 74) 'which the gods call Xanthos, but men Skamandros'. We have also an example repeated in *Yajurvedic* and *Brāhmana* passages (TS 7.5.25.2): *hayo bhūtvā devān avahad vājī gandharvān arvā ásurān áśvo manûsyān* 'as steed he carried the gods, as charger the Gandharvas, as courser the Asuras, as horse men' (Watkins 1995: 38).[18]

It is reasonable to contend that *Götterwörter* or even a similar register-based hierarchy may have existed in the proto-language. Attempts to reconstruct this would only be meaningful in examples where there is a strong consensus regarding the accuracy of the reconstructed form. To date, there has been no clear and concerted attempt to examine the proto-language for these stylistic features with only the occasional example appearing in the literature: the Indo-European collocation for 'master' as **déms pótis,* which Watkins terms as a 'dead metaphor' or even **péku* denoting the totality of 'movable wealth' (Watkins 1982: 116). Relevant to this research will be the observation that Watkins made: lexical items in various Indo-European languages must assume the prior existence of a fixed formula of noun and epithet, such as: DRY (**ters*) land → LAND (Lat. *terra*); MORTAL (**mór-to-*) man → MAN (Vedic *márta-*); EARTHLY (**dhĝhom-io-*) man → MAN (Irish *duine*) (Watkins 1992: 400–401). It is relevant since a similar system of noun and epithet may have been used in the Indo-European *Göttersprache* for the word for horse, namely SWIFT (**h₁éḱu̯o-*) horse → HORSE (OE *eoh*).

3.1. **h₁éḱu̯o-* as *Göttersprache*: a special register

It is worth examining whether the *Göttersprache* notion can be applied to the proto-form for horse, i.e. whether the supposed generic word for horse in the Indo-European period may have been a semantically marked term. The distinction between the posited proto-near-synonyms **h₁éḱu̯o-* and **márkos* (if there need be one) and other proto-forms for horse may be one of register. There are a number of reasons for believing this may be the case: (a) the iconic status of the horse as an object of worship and sacrifice (kingship rituals) may have been such that the generic term itself (assuming this was the generic) may have been a *Götterwort*; (b) the **h₁éḱu̯o-* reflex is on occasions collocated with other culturally important iconic symbols such as the sun, creating a *Göttersprache* like a semantic associative network; (c) the Greek ὠκέες ἵπποι 'swift horses' appears as a clear poetic formula and is supported by evidence of a formulaic cognate in Sanskrit *ásuàso* […] *āśávo* as well as appearing as a leitmotif in Avestan; (d) it has been claimed that **a* tends to be employed in popular lower-register forms, perhaps suggesting that the **a* of the near-synonym **márkos* may have been indicative of *Menschensprache*.

The horse appears frequently as the centre-piece of IE myth and ritual, and as a *Götterwort* the **h₁éḱu̯o-* form may have been akin to a ritual utterance. There is evidence that it was the **h₁éḱu̯o-* form and not an alternative item that was employed in *Göttersprache*. It is the **h₁éḱu̯o-* word that is associated with the divine, the magical and other culturally important symbols such as the sun.[19] This particular association is evidenced in Avestan (Yt. 10. 3) where the 'sun'

[18] Skt. *háya* is a poetic term only and not the common term for horse (**h₁éḱu̯o-* > Skt. *áśva*).

[19] There are many cultic and cultural references to the sun and the horse. One key find testifying the iconography of the Germanic tribes is the horse-drawn gold plated wheel known as the Trundholm sun chariot. See also de Lamberterie (2003: 213–34).

can be described as *auruuat.-aspa-* 'im Besitz schneller Rosse' or as *huuarə yat amәšəm raēm auruuat.aspəm* 'die Sonne, die unsterbliche prächtige, die schnelle Rosse hat' (Schmitt 1967: 166).

The most compelling evidence for **h₁ék̂u̯o-* belonging to a certain register comes, however, from **h₁ék̂u̯o-* reflexes that appear in lexically identical poetic formulae and fixed locutions, that one may term *Götterdichtung*. **h₁ék̂u̯o-* meaning 'the swift one' is collocated in certain daughter languages with the epithet 'swift', becoming not a tautology but a leitmotif running through the literature, making it difficult to deny the verbal, pragmatic and cultural-historical cognateness of the basic formula. The Ancient Greek 'swift horses' formula ὠκέες ἵπποι appears thirty-one times in the *Iliad* alone with the alternative ἵπποι ὠκύποδες appearing eighteen times in the same work. De Lamberterie (1990: 561–562) likens the ἵπποι ὠκύποδες formula to a bird of prey, both horses and falcons being emblems of speed.

The Ancient Greek poetic formula ὠκέες ἵπποι and the Sanskrit equivalent *ásuàso* […] *āśávo* undergo little change in transmission and maintain their essential identity. This is a characteristic of *Göttersprache* itself: poetic divine formulae tend to be constantly repeated. The preservation of the word becomes a corollary which is a manifestation of the formulaic diction. People say the same thing the same way when the same message is repeated and retold. The 'swift horses' formula is the canonical representation of this, the collocation of two almost identical written words appearing sequentially and in doing so reinforcing the real cultural semantic nexus.

The horse is frequently associated with speed in the *Rig-Veda* (RV 2.35.1), the Sanskrit **h₁ék̂u̯o-* reflex being invariably employed. The Indic figure Apām Napāt has the epithet *áśuheman* (RV 2.35.1) and in the Iranian *auruuaṯ.aspa-* 'having swift horses' (Yašt 19.51). There are many references to the 'swift horses' *ásü aspá* formula in the Avestan hymns (Yašt 17.12; Yašt 10.125; Yasna 30.10). The function of the basic formula is indexical and memorative. It might make reference to a myth and call it to the mind of the listener and at the same time makes reference to and reminds the listener of all the other instances of the basic formula. The function of **h₁ék̂u̯o-* and its inherited formulae in the IE daughter languages may, however, be simply to act like an idiomatic cipher, protecting the poetic message of the gods.

Whilst I believe register would have been the most salient variable differentiating between near-synonyms, the hypothesis has its weaknesses. If **h₁ék̂u̯o-* were the 'language of gods', then what comprises the 'language of men'? In addition, there does not appear to be evidence of the 'swift horses' formula based on the **h₁ék̂u̯o-* reflexes in Celtic and Germanic. It would be convenient to label **márkos Menschensprache* but the evidence is likely to be fragmentary and whilst OE *eoh* appears seldom in the literature, OIce. *jór* is not unequivocally collocated with the notion of 'swiftness'.[20] The respective hypotheses are summarized in table 2.

Conclusion

In this article, I set out to investigate an under-researched set of semantic differentiations in Proto-Indo-European, those of register differences. Proto-Indo-European was a normal language and thus had register differences. However, establishing particular registers is admittedly difficult. Register differences are of course not unknown, the most famous perhaps being the set of "daevish" words in Avestan. And register differences, not always so systematic as in Avestan, seem universal in language. Thus the supposition that Proto-Indo-European

[20] The swift notion appears a few times in Old Norse but tends to use the *hestr* and *hross* words: *Það var allra hrossa skjótast* (*Landnámabók* ch 62) 'That was the fastest of all horses'; *skjótan hest* (*Fóstbræðra saga* ch 8) 'fast horse'.

Mallory-Adams (1997)	Gamkrelidze-Ivanov (1995)	Register: Current hypothesis
*h_1éḵ$_u$o- is the 'domesticated horse' and *márkos the 'wild horse' Derived feminine in *-eh_a- denotes a 'domestic animal' and a derived feminine in *-ih_a- denotes a 'wild animal' (cf. *ulkwíh_a- 'she-wolf')	*h_1éḵ$_u$o- is a 'harnessed horse' and *márkos is a 'riding horse' *márkos is considered to be an Altaic loan that can be dated back to the first millennium B.C. Altaic loan explains the prevalence of the *mor reflexes in Altaic and various other Asian languages	*h_1éḵ$_u$o- may belong to a special register, the 'language of gods' *h_1éḵ$_u$o- reflexes appear in lexically identical poetic formulae and fixed locutions: Gr. ὠκέες ἵπποι; Skt. *ásuàso* […] *āśávo*; Av. *āsu.aspəm*, all meaning '*orĝhi-, horses' The *h_1éḵ$_u$o- reflex is collocated with culturally important iconic symbols such as the sun, creating semantic associative networks The *a may be indicative of more popular, lower-register forms, perhaps differentiating *h_1éḵ$_u$o- from *márkos
Comments	Comments	Comments
Valid way to approach the problem. There is often a distinction in wild : domesticated animal terminology (bear, wolf, beaver etc. *vs* horse/stallion/gelding). Suffixes do not easily map onto semantic load. Difficult to establish relationship between a suffix and a tame : wild distinction and the suffix and the horse. With the *ulkwíh_a- 'she-wolf' example, the suffixed form may denote a derived feminine but the corresponding masculine form is not suffixed: it is the *luk^{w}o- > Lat. *lupus* 'wolf' word.	Argument is convenient since it suggests that the new term must have some marked difference if it was to be useful and therefore adapted. No linguistic explanation for the alleged semantic distinction. No proof of concrete linguistic relationship between Celto-Germanic and Altaic languages: *márkos and *mor resemblance is probably only coincidental. Unable to assume that the Celts were not riding horses by the first millennium B.C.	If *h_1éḵ$_u$o- were *Göttersprache*, we would need a term for *Menschensprache*. It is not clear what that term would have been. No apparent evidence of the 'swift horses' formula in Celtic and Germanic using the *h_1éḵ$_u$o- reflex.

Table 2: *h_1éḵ$_u$o- and *márkos

word(s) for 'horse' might show such differences would not be unexpected. One might adduce English *steed* vs. *horse* as an illustration. There are relatively few clear-cut conclusions that can be drawn from the posited proto-forms denoting horses. However, it may be that the *h_1éḵ$_u$o- etymon belonged to a special, divine register. The reasons underpinning this view are: the iconic status of the horse in the Indo-European period, the nature of the Indo-European poetic tradition and the existence of cross-linguistic poetic formulae relating to horses employing the *h_1éḵ$_u$o- etymon. On the basis of the multiple terms for horse in a number of the IE daughter languages, it is likely that there was more than one term for horse in the IE period. A differentiation on the basis of register may have been a possibility, even at this early stage.

The co-existence of a deep-rooted Germanic poetic tradition of synonymy and a complex multi-layered register provides a case-study in the instability of the lexicon. Synonymy appears to be an unstable phenomenon in language: speakers put in place strategies to avoid it. Strategies may result in a change in denotative meaning for one of the synonyms in the synonym-pair. Such a distinction arose between other animal terms: cow-beef, pig-pork, deer-

venison. The effect will be more frequently though, in the context of Old Norse at least, a connotative one. We can witness this in the *hestr/hross* distinction where the *hross* word was used as a more neutral term to denote horse and was thus employed in the context of legal language whilst *hestr* tended to be collocated with high-register items such as kings and gods.

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Стивен Пакс Леонард. К вопросу о гиппонимах в индоевропейских языках: языковые регистры как ключ к решению проблемы синонимов

В чем могло заключаться различие между индоевропейскими этимонами **márkos* и **h*$_1$*ék̑uo-*, использовавшимися для выражения значения ˈлошадьˈ? В настоящей статье предпринята попытка ответить на этот вопрос через идею иерархически организованных языковых регистров, которые, скорее всего, использовались в праиндоевропейском языке. В частности, имеются серьезные аргументы в пользу того, что термин **h*$_1$*ék̑uo-* мог быть свойственен т.н. «языку богов», основанному на разветвленной сети семантических ассоциаций, поскольку он регулярно проявляется в лексически идентичных поэтических формулах и застывших идиоматических выражениях. Учитывая, что во многих дочерних языках праиндоевропейского зафиксированы многочисленные синонимы со значением ˈлошадьˈ, аналогичная синонимия, скорее всего, должна быть спроецирована и на праиндоевропейский уровень, где одно из наиболее вероятных объяснений для нее — распределение по языковым регистрам.

Ключевые слова: гиппонимы; языковые регистры; индоевропейские языки; этимология.