How (exactly) to slay a dragon in Indo-European?

PIE *bheid- {h₃ég"him, k₃[mi]-}*

Abstract: In this paper I present evidence for a formula associated with the Indo-European dragon-slaying myth, Proto-Indo-European [PIE] *bheid- {h₃ég"him, k₃[mi]-} ‘split serpent/worm’.

This formula is derived via an examination of the verbal collocations which frequently occur in the context of the Vedic dragon-combat; these involve not only √han- ‘slay’, but also the semantically more specific verbs √bhid- ‘split’, √vrašc- ‘tear, cut, split’, and √ruj- ‘break’. Not only are these latter three verbs employed in describing the dragon-slaying itself, but they also often appear describing actions linked to the dragon-combat (e.g. the releasing of the waters/cows), and in both cases co-occur with forms of √han-. Vedic is found to provide robust evidence for the reconstruction of PIE *bheid- {h₃ég"him, k₃[mi]-}, which is supported by data from Iranian and Germanic.

Though not as widely distributed as PIE *g"hen- h₃ég"him ‘slay serpent’ (attested for instance in Vedic āhann āhim ‘(he) slew the serpent’) – a formula discussed in great detail by Watkins (1987, 1995) – *bheid- {h₃ég"him, k₃[mi]-} ‘split serpent/worm’ is semantically more specific, and therefore more distinctive, than *g"hen- h₃ég"him, thus lending additional support for Watkins’ thesis that there exists a distinctively Indo-European dragon-slaying myth, and serving to further characterise the nature of that myth.

1. Introduction: the reconstruction of Indo-European formulae and myths

Calvert Watkins (1987, 1995), in a sensitive close study of Indo-European texts drawn from Ireland to India, recovers a Proto-Indo-European [PIE] formula associated with the Indo-European dragon-slaying myth, *g"hen- h₃ég"him. Watkins’ thesis is this: while the general theme of slaying a serpent or dragon is attested in many cultures, particular formulaic collocations (or rather the etymological equatability, in the daughter languages, of partially-fixed phrases derived from the PIE form) can single out a specifically Indo-European version of this theme.

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Evidence suggesting an inherited PIE formula *g*wen-*h*ég"him is abundant in both Indo-Aryan and Iranian, and Watkins (1995: 357-369) makes a plausible case that Greek also displays reflexes of *g*wen-*h*ég"him. However, moving beyond these three language families, the evidence for PIE *g*wen-*h*ég"him becomes more problematic. Hittite, Old Norse and Old Irish present somewhat less convincing reflexes of *g*wen-*h*ég"him, as all of the potential reflexes in these three languages employ a root other than *h*ég"him for the second term of the formula – and only in Old Norse and Hittite are there examples found in the context of dragon-slaying.

This is not to say that I dispute Watkins’ claim that all of these examples reflect an inherited formula PIE *g*wen-*h*ég"him. On the contrary, the goal of this paper is to present further supporting evidence for Watkins’ thesis that there existed a particularly Indo-European dragon-slaying myth. The difficulties one faces in positing that, for instance, ON orms einbana ‘the serpent’s single slayer’ reflects and thus provides evidence for an inherited PIE formula *g*wen-*h*ég"him are largely the same difficulties faced in all work in comparative linguistics. Matasović (1996: §308) provides a succinct synopsis of the situation:

> Comparative linguistics is neither mathematics nor natural science, and although the same criteria of rigor should apply to all of them, their results cannot be equally certain. As is the case with other historical sciences, the object of textual reconstruction is not directly observable. However, textual reconstruction is nevertheless an EMPIRICAL SCIENCE, and all of its hypotheses must be based on facts. The hypotheses of our science will be the more probable, the more they are confirmed by the facts.

Since the reconstruction of PIE formulae (or ‘textual reconstruction’ as Matasović puts it) necessarily involves the use of reasoning on the basis of indirect evidence, it is impossible to ‘prove’ that *g*wen-*h*ég"him was a formulaic sequence in PIE or that the was a dragon-slaying myth that was part of the culture of PIE speakers. However, the more evidence can be amassed, the more probable these theses become.

In this paper I offer additional evidence for a PIE dragon-slaying myth through the consideration of other formulaic collocations which are associated with dragon-slaying. Specifically, I consider Vedic collocations which occur in the context of the Indra-Vritra combat involving the roots \textit{bhid}– ‘split’, \textit{vraśc}– ‘split, rend’ and \textit{ruj}– ‘break’, and compare these with formulations in Iranian and Germanic which appear to be cognate. These roots, when used to describe the action of dragon-slaying, have the advantage over \textit{han}– ‘slay’ (< PIE *g*wen-) that they
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are semantically more informative since they describe a particular means of slaying.¹

In addition, I investigate cases in which we find co-occurrence of formulae. Watkins 1995 suggests that a formula may express a theme which is socio-culturally significant – and thus events which we find to be repeatedly associated with formulaic sequences are likely to be those with some sort of cultural significance. An event is frequently associated with MULTIPLE formulaic sequences is thus even more likely to be one with a central place in the cultural ideology.

Matasović (1996: §114) points out that in both Old Irish and Vedic not only do we find a formula reflecting PIE *ǵōus h₂eg- 'to drive cattle', but that this formula frequently occurs alongside forms of PIE *ǵʰen- 'to slay'. In Old Irish *ǵōus h₂eg- occurs as part of larger formulaic expressions with the meaning 'men are killed, women are taken, cattle are driven off', as in example (1).²

(1) fir gontair, mná brattair, báí agthar

('Men are killed, women are taken, cattle are driven off')

In the following example, (2), the same basic formula occurs, though here bó (< PIE *ǵʰōus) has been replaced by éit.

(2) mná brataitir, ol Cú Chulaind, eti agatair, fir gonaitir

('Women are taken, said Cú Chulainn, cattle are driven off, men are killed')

¹ Cf. Matasović (1996: §103-4) on Schmitt’s (1967: §493, 495-6, 501) reconstruction of PIE *h₁ekwos heh₂kū- 'swift horse', on the basis of the correspondence of Gr Ὠκτώς ἵππος (in nom. pl. eleven times in Homer, e.g. Il. 5.257, 8.88 etc) and Vedic āśvās...āśāvo (RV 10.78.5, in other cases as well, see Schmitt 1967: §493), along with the Avestan āśa.aspa- (which never occurs in the nominative plural). The metaphorical nature of PIE *klēwos ndh₂gʰ hitom 'imperishable fame', discussed below in Section 1.1.1, is absent in *h₁ekwos heh₂kū-. In other words, while 'imperishable' is highly informative with respect to 'fame', the epithet 'swift' is uninformative with respect to 'horse' since swiftness is an easily observable trait of horses, there is nothing remarkable, or peculiarly Indo-European, about the latter collocation.

² Translations from Matasović (1996: §114)
In the RV twice we find a reflex of \(*g^\text{o}u\text{s} h_2\text{eg}^-\) co-occurring with a form of √*han*-, once in the context of the dragon-fight (3a), the other in the context of the slaying of a demon named Dribhika (3b). The general co-occurrence of \(*g^\text{o}u\text{s} h_2\text{eg}^-\) and \(*g^\text{hen}^-\) points to cattle-raids as an important event in PIE culture (cf. Lincoln 1976). The occurrence of \(*g^\text{o}u\text{s} h_2\text{eg}^-\) in the context of dragon-slaying possibly indicates that cattle-raids and the dragon-slaying myth were connected in PIE (cf. Ivanov and Toporov 1974). The remainder of Section 1 discusses how formulaicity is evaluated, from psycholinguistic, statistical, and philological perspectives, and establishes a classification of formulae based on the level of correspondence of their putative tokens. Section 2 reviews Watkins’ (1987, 1995) evidence for the reconstruction of PIE \(*g^\text{hen}^- h_3\text{eg}^\text{him}^-\), and suggests that the formula would be better represented as \(*g^\text{hen}^- \{h_3\text{ég}^\text{hi}^-\), k*\text{mi}^-\}. In Section 3, I discuss the formulaic use of √*bheid*-, √*vraśc*-, and √*ruj*- in the context of the Vedic dragon-combat, amassing evidence for a Vedic inheritance of the PIE formula \(*bheid^- \{h_3\text{ég}^\text{him}^-\), \text{k*\text{mi}^-\}. In Section 4, an Iranian reflex is suggested; and Section 5 examines the

(3) a. yó hatvāhim āринāt saptā sindhūn yó gā udājad apadhā valāsya yó āśmanor antār āgniṁ jājāna saṁvṛk samātṣu sā janāsa indraḥ (RV 2.12,3) ‘He who, having slain the serpent, let the seven rivers flow; who drove out the cows, after the removing of Vala; who gave birth to the fire between two stones, who gets loot in combats – he, o men, is Indra’

b. ádhvaryavo yó dībhikāṁ jughāna yó gā udājad... (RV 2.14,3ab) ‘O Adhvaryus, he (=Indra) who slew Dribhika, he who drove out the cows...’

Once it co-occurs with √*bhid*-(4), one of the verbs investigated later in this paper.

(4) úd gā ājad ābhīnad brāhmaṇā valāṁ... (RV 2.24,3c) ‘(Indra) drove out the cows; he split Vala with an incantation.’

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3 All translations herein are mine, unless otherwise noted.
Germanic evidence for *bheid- {h₁é₂gʷh₁im, kʷi²m₁i-}. Section 6, the concluding section, provides an overall evaluation of the validity of the reconstruction *bheid- {h₁é₂gʷh₁im, kʷi²m₁i-} and suggests the thematic reason behind the splitting of the dragon in Indo-European – a topic to be further investigated in a future study.

1.1 Formulaic language and PIE formulae

In considering reconstructed formulae, it is perhaps useful to begin by distinguishing between the different types of reconstructions which can be established on the basis of correspondence between Indo-European texts. It is also useful to consider the reconstruction of PIE formulae from the perspective of general linguistic studies of formulaic language (e.g. Firth 1957; Pawley and Syder 1983; Wray and Perkins 2000; Wray 2002; Garley et al. 2010 forthcoming). I begin with a tripartite classification of three types of correspondence upon which the existence of PIE formulae may be inferred (with varying degrees of confidence), illustrated with examples connected with the well-known ‘imperishable fame’ formula (Kuhn 1853).

1.1.1 Classification of formulaic reconstructions

A formula may be reconstructed on the basis of complete correspondence between texts, as in the case of Skt. śráva...áksitam (RV 1.40,4b; 8.103,5b; 9.66,7c) and Gr. κλέος ἀφθητον (Il. 9.413) ‘imperishable fame’, where not only the roots but the other morphological elements correspond genetically, thus allowing us to reconstruct a complete PIE formula *klewos ndhgʰhitom (Schmitt 1967). Such a reconstruction can be referred to as a COMPLETE FORMULA.

Other correspondences involve etymologically cognate roots, but one or more of the words involves a different formation, as in Kuhn’s (1853) original comparison of Gr. κλέος ἀφθητον with Skt. áksiti śrávas (RV 1.9,7bc), where áksiti is built with a suffix *-tey/-ti-. The formulaic reconstruction made on the basis of this comparison would be PIE *klewos ndhgʰhi-. This kind of reconstruction can be called an INCOMPLETE FORMULA.

Finally, some formulae are reconstructed on the basis of partial etymological correspondence of roots. This is the case of the RENEWED FORMULA, the name given on the basis of the idea that one or more of the languages in which the formula is supposed to be attested has ‘renewed’ the formula by replacing one or more of the roots with

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4 I use ‘text’ here simply to refer to one or more words.
another which is (nearly) identical in its semantics. For obvious reasons, this is the most difficult case of reconstruction to establish with any degree of certainty. A somewhat doubtful example (Watkins 1995: 415-6, Matasović 1996: §102) would be the connection of OE. dōm unlītel ‘un-little fame’ (Bwf. 885b) with the ‘imperishable fame’ formulae discussed above, or more closely with the apparently related formula (attested only in Greek and Sanskrit) PIE *klewos megh; 'great fame' > Skt. māhi śrāvas, Gr. κλέος μέγα (Schmitt 1967: §128ff.).

1.1.2 Psycholinguistic and computational/statistical approaches to formulaic language

From a psycholinguistic perspective, a formulaic sequence can be characterised as

a sequence, continuous or discontinuous, of words or other meaning elements, which is, or appears to be, prefabricated: that is, stored and retrieved whole from memory at the time of use, rather than being subject to generation or analysis by the language grammar. (Wray and Perkins 2000: 1)

In other words formulaic sequences are treated in some respects as individual items, ‘stored and retrieved whole from memory’ like single lexical items. As such, some formulaic sequences (often referred to as ‘idioms’) exhibit deviant syntactic behaviour, e.g. by and large; and/or semantic non-compositionality, e.g. kick the bucket; or compositionality with shifted (metaphorical) reference (Nunberg et al. 1994), e.g. spill the beans. But many (perhaps most) formulaic sequences are perfectly regular both syntactically and semantically, which is unsurprising if, as Wray and Perkins (2000) suggest, formulaic sequences primarily serve two functions: as a crutch for language-production, where ‘prefabrication’ acts as a countermeasure against the limits of memory and (neurolinguistic) linguistic processing capacity, aiding in the real-time production of fluent speech; and as a means of indexing socio-cultural identity.⁵

⁵ From a less explicitly psycholinguistically-oriented perspective, the tradition of ‘oral-formulaic’ analysis originating in Milman Parry’s (1928, 1930, 1971) comparisons of the Homeric epics with traditional Yugoslavian oral verse, arrives at similar conclusions about the functional properties of formulaic language. For Parry (1930) the fact that both the Homeric epics and the traditional oral verse of the former Yugoslavia (the latter composed largely by unlettered poets) are characterised by the repeated use of ‘frozen’ traditional formulae suggested that the Homeric epics were composed in a manner similar to what he observed to be the case for the traditional Yugoslavian verse, i.e. that the frequent appearance of ‘ready-made’ formulae is due to the fact that this use
Unfortunately, such psycholinguistic and functional characterisations of formulaic language do not usually provide a ready means of actual identification of particular linguistic sequences as being formulaic or not. Some formulaic sequences can be readily identified as such by native speakers of a language, i.e. English speakers have an intuition that friend or foe is formulaic whereas friend or enemy is not – this is of course of little help for the purposes of detecting formulae in texts composed a millennium or more before the present day.

Computationally-implemented statistical approaches to collocations are potentially useful as a method of evaluating formulaicity. A simple count of the number of times a collocation appears in a text is not very telling in terms of whether or not the collocation is formulaic. For examples, in the consideration of a newspaper corpus, the collocation of the would be extremely frequent, but one would not want to count of the as formulaic. The computational-statistical algorithms provide a more reliable metric of formulaicity by comparing the frequency of the occurrence of XY against: the frequency of the occurrence of X¬Y, the frequency of the occurrence of ¬XY, and the frequency of occurrence of ¬X¬Y. These algorithms thus would not evaluate of the as being very formulaic since both of and the frequently occur outside of the string of the.

The potential usefulness of such approaches can be illustrated by considering the ranking in terms of collocational strength of all of the bigram sequences from the RV. The prototypical Vedic dragon-slaying of prefabricated linguistic sequences allowed for the fluent production of verse in real-time.

Later ‘oral-formulaic’ practitioners (Foley 1991; Nagy 1996, 2004a,b) have emphasised the importance of the socio-cultural aspect of formulaic language; Foley (1991: 5-6) refers to this feature of formulaic language as ‘traditional referentiality’, which he suggests is some ways similar to literary allusion, except that, rather than making reference to a particular scene or image in a particular text, traditional referential elements ‘reach out of the immediate instance in which they appear to the fecund totality of the entire tradition...bear[ing] meanings as wide and deep as the tradition they encode’ (Foley 1991: 7).

For sake of exposition, I restrict the discussion to the evaluation of bigram collocations, i.e. collocations with only two elements, though the method discussed is applicable also in the case of collocations with more than two elements. For a general introduction to computational methods for the extraction of n-grams from a text, see Roark and Sproat (2007).

This was done by first extracting all of the bigram sequences from the RV, using the pada pātha text available in electronic form from the Thesaurus Indogermanischer Text- und Sprachmaterialien [http://titus.uni-frankfurt.de]. The resulting bigrams were then
formulae āhann āhim ranks extremely highly in terms of the strength of association between āhann and āhim, out of the 165004 bigrams in the RV, āhann āhim is in the top 0.1%. Here the computational-statistical approach thus provides strong support for the idea that āhann āhim is formulaic in the RV.

In other cases, such statistical methods yield less helpful results. For example, κλίς ἀφθητον occurs only once in Homer (Il. 9.413), and so is not statistically a very strong collocation in Homer. However, as Matasović (1996: §97) points out, it occurs in a passage which is crucial for both the storyline and artistic impression of the epic: Achilles wonders whether he should return alive to Phthia; or fight and perish at Troy, thereby obtaining κλίς ἀφθητον ‘imperishable fame’ (Il. 9.412-413) – a decisive point in the epic which encapsulates the basic theme of entire Iliad. Likewise, additional computational complexity would have to be introduced into the algorithms calculating the association strength of elements in order to detect formulaic instances like Skt. śrāvo...ākṣitam (RV 1.40,4b; 8.103,5b; 9.66,7c) where the formula is discontinuous.

In summary: the psycholinguistic characteristic of formulaic language – while useful in thinking about what it means for something to be formulaic – does not offer a ready means for the identification of formulaic language in old texts; the computation-statistical approach is potentially useful, but is of limited use in the identification of discontinuous formulae or formulae which are infrequent but identifiable by philological means by their context.

However, the results of research on formulaic sequences in (modern) spoken languages is helpful in evaluating whether or not two pieces of text constitute tokens of the same formula, as discussed in the following section.

1.1.3 Complete and incomplete formulae: formulaic flexibility

Schmitt 1967 largely accepts only complete formulae, and those based upon the correspondence between Indo-Iranian and Greek texts (see Matasović 1996: §10-12, §56ff. for some discussion of the reactions of

 evaluated by using the log-likelihood test of association (Dunning 1993, Moore 2004), as implemented in the Ngram Statistics Package (Banerjee and Pedersen 2003). 9 āhan(n) X appears 40 times in the RV. In 11 instances X=āhim, in 5 instances X=vṛtrām (putting āhan vṛtrām in the top 0.7%), with no other value of X occurring more than twice, and the majority only once.

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other researchers to Schmitt 1967), two branches in which we have extant texts from a very early period. In the case of branches which are only attested from a much later date (e.g. Germanic) we are of course more likely to encounter cases of incomplete correspondence.

Campanile (1993) presents an example which he construes as presenting difficulties for the Schmitt-style ‘formalist’ reconstruction which requires correspondence in form as well as meaning. Campanile suggests that the following set of correspondences illustrate the difficulties in accepting only complete formulae as reconstructable for PIE (cf. Matasovič 1996: §59). Comparison of the following collocations would seem suggest an inherited PIE formula: Skt. vācam ...bharāmahe (RV 1.53,1a) ‘we bear the word’, vācam...bibharti (RV 10.177,2a) ‘he bears the word’, Av. vācam baraiti (Y. 31.12) ‘he bears the word (=he speaks)’, Gr. ἔπος γέρειν (in Euripides), L. vocem (ad-) fert (in Virgil). From these examples we cannot construct a complete formula as the examples vary in which person the verb occurs, and whether the noun ‘word’ is a root-noun (Ved. vāk- < PIE wōkʷ-), or an s-stem (Gr. ἔπος < PIE *wekʷos).

Consideration of modern English formulaic phrases also points to the fact that the grammatical/functional elements (such as tense, person/number agreement etc.) of a formula can often be varied without altering the formulaic nature of the collocation itself. For example, consider the variant realisations of the idiom let the cat out of the bag: Don’t let the cat out of the bag; He always lets the cat out of the bag; You will let the cat out of the bag etc.

However, there are some difficulties with Campanile’s equating of the Sanskrit, Avestan, Greek and Latin texts. Perhaps the more serious issue is that Campanile’s examples do not seem to be equatable in terms of their semantics. The Vedic formulations appear to carry a sense of ‘bringing forth of sacred speech’, whereas the apparent equivalents in Greek and Latin bear a more prosaic sense of ‘to speak’.

Further, it is not entirely clear that different stem-forms of the same root, e.g. PIE *wōkʷ- and *wekʷos, are instances of the same ‘word’, or if the Greek form would have to be considered an instance of renewal on a par with formulae in which one root has been replaced by another. As discussed in the following section, though renewal of terms of a formula would seem to be an expected phenomenon, such renewal makes it more difficult to confidently identify the true correspondences between texts upon which formulaic reconstruction depends.

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10 To connect RV 10.177,2a we also have to allow for a reduplicated present.
1.1.4 Formulaic renewal

Replacement/renewal is common in the case of single lexical items, e.g. OE *hund and Skt. śvan were the unmarked terms for ‘dog’, both deriving via mechanical sound change from PIE *kwen-. However, in the modern descendants of these languages, we find lexical replacement on both sides: the unmarked words for ‘dog’ are English *dog (OE *docga, of unknown origin) and Nepali *kukur (Skt. *kurkurá).11 It is to be expected that formulaic sequences are susceptible to the same forces which lead to the replacement of individual lexical items.

However, instances of formulaic sequences in modern English often exhibit resistance to such renewal/replacement of lexical items under (near) semantic identity, e.g. if one of the elements of the idioms *friend or foe or kick the bucket is replaced under semantic identity – for instance *friend or *enemy or *kick the *pail – the result is not formulaic, and in the case of *by and *large, the ‘renewed’ form *by and *big is simply ungrammatical. Additionally, though it is sometimes suggested that replacement is to be expected when one of the old terms of the formula becomes obsolete (e.g. Matasović 1996: §102) on possible reflexes of PIE *klewos ‘great fame’ in Slavic and Celtic with lexical replacement of *megh2 on the basis that in both Old Irish and Slavic no adjectival form of *megh2 survives), obsolete words often survive just in the case that they are part of a formulaic expression (sometimes with reinterpretation or folk-etymologising). For instance, in English with *kith and *kin ‘with friends and family; with the whole family’ (OED), *kin is rather archaic and *kith (*OE *cyþ ‘knowledge; known, familiar country; acquaintances, friends’) is found only in this context.12 In the German formulaic expression mit *Kind und *Kegel ‘with the whole family’, Kegel, like *kith, is similarly opaque; Lambrecht (1984: 782) comments that ‘[o]nly etymologically sophisticated speakers know that Kegel once meant ‘illegitimate child’ (and that it

11 In some cases, lexical replacement is incomplete in the sense that the old unmarked form remains in the language with a specialisation of meaning, e.g. PIE *kwen- survives, with specialisation of meaning, in Hindi sonhā ‘a kind of wild dog’ (Turner 1962-1966: #12750, #12651). English hound of course survives with the specialised meaning of ‘hunting dog’, while Hund remains the unmarked word for ‘dog’ in German. The Hindi form kunā ‘dog’ is not directly related to Skt. kurkurá; while Hindi kūkār is cognate with Nepali kukur, but shows a specialised meaning of ‘puppy’ (Hock and Joseph 1996: 234-5).

12 The first instance of this idiom occurs in 1377 in Piers Plowman where it means ‘native land and people’ (OED); the phrase later develops semantically to mean ‘with family and acquaintances’ or ‘with the whole family’.
has nothing to do with the homophonous Kegel “cone”), so that mit Kind und Kegel literally meant “with child and bastard”. Further the phrase to have and to hold (as in the English wedding vows) is a formula where the signifiants have survived intact (cp. héold mec ond hæfde (Bwf. 2430a) ‘protected and looked after me’) with a shift in the interpretation to ‘keep and embrace’ mirroring the changes in the signifiés of ‘have’ and ‘hold’.

On the other hand, there are modern English formulae which do allow for variation of the terms, e.g. between the Devil and the deep blue sea and between a rock and a hard place, both variations on older between Scylla and Charybdis; to blow one’s top and to blow one’s stack. Moreover, other formulaic sequences are extremely mutable, such as If X is good enough for Y, then X is good enough for me (cf. Pawley and Syder 1983: 212). So formulae do appear in principle to be mutable, but mutability varies widely from one formula to another.

Furthermore, even formulaic expressions which are normally very restricted in terms of variation can, in the right context, be creatively distorted. For instance, though none of the lexical elements of the English idiom to kick the bucket can usually be varied (i.e. to kick the pail doesn’t have the idiomatic meaning), the following example, (5), is perfectly acceptable to native English speakers.

(5) Nah, he didn’t kick the bucket – he barely nudged it
(said of someone who had a what perhaps seemed like a near-fatal experience, but wasn’t)

For further discussion, see Carter 2004, who gives other examples of creative reforming of idioms like I guess you are now over the moon, Mars, Jupiter and the whole galaxy (based on the fixed idiom to be over the moon).
Since there is no reason to believe that the poets of the RV, the Avestas, Beowulf, the Eddas etc. were any less creative in their use of language (including formulaic expressions) than modern day speakers (quite the contrary, in fact), we must allow for the fact that some instances of what appear to be formulaic renewal may simply reflect the creative artistic reforming of an inherited formula.

2. Watkins’ *g”hen- h₃ég”him*

In this section I briefly review Watkins’ (1995) primary examples for the reconstruction of PIE *g”hen- h₃ég”him*. I show that, based on the arguments laid out above in section 1.1, *g”hen- h₃ég”him* can be reconstructed for PIE with a high degree of probability. However, while some of the examples Watkins cites as instances of variants of this formula are reasonable, in other cases Watkins casts his nets too wide, his notion of ‘themes’ leading him to posit *g”hen- h₃ég”him* as existing at such a level of abstraction as to potentially allow an enormous range of expressions to count as reflexes.

Not only does Watkins (1995: 302) suggest that the *g”hen- h₃ég”him* formula is represented abstractly (‘thematically’) as HERO SLAY (*g”hen-*) SERPENT (with WEAPON/COMPANION), but he allows for great variation even at this level of abstraction:

The semantic constituents of the basic theme may undergo paradigmatic (commutational) variants: for the HERO’s name there may appear an epithet (e.g., slayer); for SLAY we may find KILL, SMITE, OVERCOME, BEAT, etc.; for SERPENT (ADVERSARY) we may find MONSTER, BEAST, but also HERO or ANTI-HERO.

As Justus (1997: 640) points out, ‘how is SLAY ADVERSARY ([with] WEAPON) of peculiarly IE inheritance and not the epitome of a
western culture that started over five thousand years ago when Sumerian Gilgamesh slew his Ancient Near Eastern monster, Humbaba?’

Verbal expressions, whether morphemes or multi-word texts, can be (probabilistically) reconstructed via the application of the comparative method. Cultural facts or patterns (‘themes’) cannot be directly compared in this way, and, further, cultural patterns and conceptions may easily be innovated or borrowed or simply represent more universally human ideas. In dealing with the reconstruction of texts, it is preferable to adopt a more conservative position, such as that expressed by Matasović (1996: §72):

The genetic correspondence of themes [in Watkins’ sense--BMS] can be proved only by etymological correspondence of the formulas by which these themes are expressed in the genetically related languages; we must try to avoid at any cost the circular reasoning by which some cultural contents are attributed to the Proto-Indo-Europeans, because they are expressed by formulas in various IE languages, while, on the other hand, we define formulas as those syntagms or phrases that express the contents attested in other IE linguistic communities.

In reconstructing PIE formulae, one must allow for some amount of variation, for reasons discussed previously, but etymological correspondence must remain the core component.16

2.1 Indo-Iranian: an almost complete formula

In the RV, one of the primary functions of Indra, the storm-god, is the slaying of the demon serpent Vritra, who hoards waters and/ or cows (on the hoarding of cows as belonging to the Vritra myth see Venkatasubbiah 1965). A well-known instance of this event is narrated in RV 1.32, see example (6) below.

(6) indrasya nū vīryāṇi prá vocāṃ
yānī cakāra prathamāṇi vajrī
āhann āhim ānv apās tatarda
prā vakṣāṇa abhinat párvatānām
āhann āhim párvate śiśriyāṇām

(RV 1.32,1,2a)

16 On constraining formulaic reconstruction, see also the ‘3 2 1 rule’ of Fisher (2007): A traditional sequence of Proto-Indo-European date is likely when a collocation of two or more words consisting of established reflexes of IE roots, expressing the same semantic message, and retaining at least one reflex of the reconstructed roots exists in three separate branches and that one of these phrases occurs at least three times in at least one branch. In addition at least one branch should consistently deploy both roots.
'I tell now of the heroism of Indra, the first which he did armed with a vajra\textsuperscript{17}. He \textbf{slew the serpent}, afterwards drilled through to the waters, he split through the bellies of the mountains.

He \textbf{slew the serpent} who lay on the mountain...'

Indra’s serpentine opponent is sometimes referred to as an áhi-’serpent’ (\textless{} PIE *h₁égʷhi-\textgreater{}), but more frequently by its ‘name’: vrtrá-’the encloser’ (\textless{} IIr. *wrtrám ‘obstruction, obstacle, resistance’, cf. Benveniste and Renou 1934). The waters enclosed by Vṛtra appear, at least originally, to be conceived of as being headwaters originating in the mountains (cf. Oldenberg 1923/1988), though later on these seem to be reconceptualised as rain as the Nighanṭu (I.10) considers both vrtrá- and áhi- as synonyms for ‘cloud’ (and Sāyaṇā too interprets Vṛtra as a cloud, and Indra’s slaying of him as the release of rain from the cloud). Further discussion of the Indra-Vṛtra combat can be found in Oldenberg (1923/1988); Benveniste and Renou (1934); Venkatasubbiah (1965); Schmidt (1968); Dandekar (1979); Lāhiri (1984); Gonda (1989); Falk (1997); Sōhn (1997); Sōhn-Thieme (2001); Witzel (2004), and in Section 3.

The prototypical Vedic dragon-slaying formula is áhann áhim, found in this form eleven times in the RV,\textsuperscript{18} which Watkins (1995) suggests reflects an inherited formula PIE *(ē)gʷhent h₁égʷhim.

In Iranian, we find a collocation which stands in almost perfect correspondence to Vedic áhann áhim: Avestan (yō) jānāt azīm, associated with the slaying of a dragon by the (human) hero Thraetaona, as in example (7) below.\textsuperscript{19}

(7) ...ṝṛaṝṝaṇṇō... yō jānāt azīm dāhākēm ṛṝizafānām ṛṝikamarṇādōm xšuuaš.azīm hazagṛa.yaoxštīm...

(Yt. 14.38,40)

\textsuperscript{17} ‘Thunderbolt’ or perhaps ‘cudgel’.
\textsuperscript{18} 3sg.: 1.32,1,2; 1.103,2; 4.28,1; 5.29,3; 10.67,12. 2sg.: 2.11,5; 3.32,11; 4.19,2; 6.30,4; 10.133,2.
\textsuperscript{19} On the Avestan dragon-slaying story, see Benveniste and Renou 1934.
How (exactly) to slay a dragon in Indo-European?

‘...Thraetaona...
who slew (the dragon) Azi Dahaka,
the three-jawed, three-headed,
six-eyed one of a thousand skills...’

The sequence (yō) janaFš(PC71ažīm occurs also in Y. 9.8. The etymological correspondence between the Vedic and Avestan formulae is not quite perfect since the Avestan imperfect jana has been thematised 20 (and the Avestan expression occurs as a relative clause), 21 but on the whole Watkins’ evidence for an Indo-Iranian formula reflecting PIE *gʷhent h₃égʰ him is fairly sound (cf. Benveniste and Renou 1934).

2.2 Greek: a virtual correspondence

The Greek data are somewhat more difficult, as we here we find no direct reflexes of PIE *gʷhen- h₃égʰ him. However, Watkins (1995: 364) derives a ‘virtual’ reflex by comparing two passages from Pindaric odes, Ol. 13.63-4, (8), mentioning the Pegasus as the child of the serpentine Gorgon, and Pyth. 10.46-8, (9), which narrates Perseus’s slaying of the Gorgon. 22

(8) δς τας ὄφηδεος υιον ποτε Γοργόνος ἤ πόλλη ἀμφι κρουνοῖς
Πάγασον ξεδεξαι ποθεὺν ἔπαθεν

(Ol. 13.63-4)

‘who beside the Springs, striving to break the [serpent Gorgon’s] child, Pegasos, endured much hardship.’

(9) ἐς ἀνδρόν μακάρων ὀμιλον ἐπεθνέν τε Γοργόνα και ποικίλον κάρα
δρακόντων φόβασιν ἠλθενε νασιώταις
λίθων θάνατον φέρων

(Pyth. 10.46-8)

‘...to that throng of blessed men. He slew the Gorgon, came bearing the head, intricate with snake hair, the stony death to the islanders.’

As Watkins (1995: 364) puts it, ‘by] [c]ombining the syntagms ὄφηδεος...Γοργόνος and ἐπεθνέν Γοργόνα we can restore the real

20 Cp. Old Persian aja.
21 The lack of an augment in Avestan is not as problematic since the Vedic imperfect occurs also in an augmentless form as hán.
22 Translations from Lattimore 1960.
mythographic formula, just below the surface.' Watkins’ virtual formula is given in (10).

(10) *ἐπεθνεν ὄφιν

Comparison of the Indo-Iranian and Greek evidence thus can only result in the reconstruction of an incomplete formula, PIE *gʰ*hen-*h₂ég'*him. As discussed above in Section 1.1.3, incomplete formulae still provide good evidence for the existence of a formula in the proto-language, since even contemporary English formulaic expression often allow for variation of tense, number etc. Thus Watkins’ virtual *ἐπεθνεν ὄφιν does seem to support a reconstruction of *gʰ*hen-*h₂ég'*him, surviving at least in Indo-Iranian and Greek.

2.3 Hittite and Old Irish: formulaic renewal

In Hittite we do find the verb kuenta ‘slew’ – which corresponds exactly to the Vedic imperfect (ā)han – employed in a dragon-slaying context. However, we do not find any reflex of PIE *h₁égʷ'hi-*, but instead Hittite illuyanka- (apparently the unmarked Hittite term for ‘serpent’, cf. Beckman 1982) as shown in example (11).

(11) ḪIRAŠ aš uš kantušulluy(ankan)kuenta DINGIR₅=š=š=š=š=š=katti=šši ešer

‘(Tarlž)ME–unnas) came and he killed the serpent; and the gods were with him.’

We may only assume that Hittite illuyankan kuenta reflects an inherited PIE *gʰ*hen-*h₂ég'*him if we suppose that the Hittite formula has been ‘renewed’, replacing *h₁égʷ'hi- with illuyanka-. Of course, as discussed above in Section 1.1.4, in principle formulae, like lexical items, may undergo renewal; however, the comparison of a potentially refashioned formula like illuyankan kuenta with, for instance, Vedic áhann áhim, does not constitute robust evidence for the reconstruction of PIE *gʰ*hen-*h₂ég'*him as does the correspondence of the Vedic formula with the Avestan or Greek examples discussed above. The fact that a reflex of *h₁égʷ'hi- does not occur elsewhere in Hittite, where illuyanka- has become the unmarked term for ‘serpent’, does little to strengthen the correspondence, since often otherwise obsolete words survive just in the context of the formula (cp. English kith in kith and kin, as discussed above in Section 1.1.4).
The possible Celtic reflex of PIE *gʷhen- h₃égh₃him proposed by Watkins is a bit of (somewhat garbled) Old Irish found in an Old English medico-magical treatise (Lacunga, Harl. 585), in the context of a wyrm gealdor (charm against body-internal worms), to be sung into the ear of a person or animal who has swallowed a worm. The relevant portion is given in example (12).  

(12) Gonomil orgomil marbumil

(Pollington 2000)

‘I slay the beast, I slaughter the beast, I kill the beast.’

Here again no reflex of *h₃égh₃hi- is found, and gono is a 1sg. present absolute form (not an imperfect as in the Indo-Aryan, Iranian, and Hittite examples), and mil means ‘beast’ and not ‘serpent’ or ‘dragon’. The possible connection of gonomil... with *gʷhen- h₃égh₃him derives from the fact that OE wyrm is used to refer not only to worms, but also to snakes and dragons. And, in fact, as discussed below in Sections 4 and 5, there is evidence that PIE *kʷrmi- (of which OE wyrm appears to be a reflex, with deformation of the initial consonant) may also have referred not only to ‘worms’ but also to ‘serpents’. However, be that as it may, this is to a certain extent irrelevant for the Old Irish example in (12), which does not itself contain a reflex of *kʷrmi-, and which thus constitutes rather weak evidence for the reconstruction of PIE *gʷhen-h₃égh₃him.

2.4 Germanic *wurmi-banōn and Indo-Iranian *kʷrmi-: variation in PIE

Germanic also possesses no reflex of PIE *h₃égh₃hi-, for ‘serpent’ we instead find Gmc. *wurmiz < PIE *wṛmis, a rhyme formation (possibly a tabu-deformation) in Indo-European of *kʷrmi (cp. Latin uermis). For ‘slay’, Gmc. displays no non-derived verbal reflex of PIE *gʷhen-, but instead employs *ban-ōn, which appears to derive from an o-grade form *gʷhon-, though the phonological developments involved are not completely clear.  

23 See Thurneysen 1919 on the translation of gonomil orgomil marbumil ‘I slay etc.’, and Meroney 1945 for further discussion of the remainder of the Irish words of this charm.

24 Watkins (1995: 423), following Seebold (1967) (cf. Ringe 2006: 105-112), takes *b to be the normal reflex in Gmc. of PIE *gʷh, in word-initial position not followed by a reflex of a PIE sonorant. Before *u (and thus before the sonorants PIE *r, *y, *l > Gmc. *ur, un, ul), *gʷ appears to have been delabialised, bleeding the change *gʷ(h) > *b.
Key examples of Gmc. *wurmi-banōn* are found in Old Norse, as in (13) and (14) below, with reference to the slaying of the Midgard-serpent by Thor, the Germanic storm god.

(13) **orms einbani**

(Edda(EI), Hymiskviða 22)

‘the serpent’s single bane’ (=Thor)

(14) **bórr berr bana bana bana bana** orð af Midgarðsormi

(Edda(Sn), p. 72)

‘Thor bears the killer’s word to the Midgard-serpent’ (= Thor will slay the Midgard serpent)

Such Germanic examples, with renewal of the second term of *g"hen-hèg"him* would constitute no better evidence than the Hittite examples but for the fact that *g"h(e)an* - *kégori* appears to be a synchronic variant in PIE of *g"hen-hèg"him*, on the basis of evidence from Indo-Iranian, as discussed below.

(Seebold 1967; Ringe 2006: 92, 106-122): thus ON gunnr, OE gēp ‘battle, war’ < a zero-grade form *g"hun* - ( > Pre-Gmc. *g"hun* - > Gmc. *gun* - ). Following a homorganic nasal, *g"h (h) > Gmc. *gw*, e.g. from PIE *sengh"- ‘chant’ > Gmc. *singswan ‘sing’ (cf. Goth. siggwan, ON syngeva, but with loss of labialisation in OE, OS, OHG singan). Intervocally apparently *g"h (h) > Gmc. *w, as in PIE *snóíg’h-os, o-grade derivative of * sneig-h- ‘snow’, > Gmc. *snaíwaz (cf. Goth. snáiwaz, ON snjör, OE snwæ, OHG snö). On the one hand, Gmc. *warno- (cf. ON warmr, OE wearm etc.) appears to be straight-forwardly derivable from PIE *g"horn-o ‘warm’, o-grade derivative of *g"herm- (cp. the reflexes of the e- and o-grade forms of this root in Skt. garmā ‘heat’, Av. garmama ‘hot’, Gk. thpeus ‘hot’, Lat formus ‘warm’, OPruss. gorme ‘heat’, Alb. żiarm ‘heat’, Arm. yerm ‘warm’), if it is assumed that PIE *g"h (h) > Gmc. *w. On the other hand, in addition to PIE *g"hen-, Seebold 1967 gives two other examples which support the idea of *b as a Gmc. reflex of *g"h: Gmc. *bidjan ‘pray, entreat’ (cf. Goth. *bidjan, OE biddan) < PIE *g"bedh-yo- ‘ask, pray’ (Pokorny’s (1958: 2.114) derivation *bidjan < PIE *bhedh-yo- ‘bend’ involves a less straightforward semantic development) and Gmc. *brē- (cf. OE brēp ‘smell, vapour’) < PIE *g"hreh-, ‘smell’. Seebold 1967 also considers, but ultimately rejects, Gmc. *berđ ‘bear’ (cf. OHG bero, OE bera) as another example of Gmc. *b < PIE *g"h. The potential source of *berđ would be PIE *g"hēr- ~ *g"hēr- ‘wild animal’ (cf. Gr. dhp, Lat. ferus ‘wild’), but here it would seem that the traditional derivation from PIE *bher- ‘brown’ is likely correct. Another possible example of Gmc. *b < PIE *g"h suggested by Watkins 2000 is Gmc. *birnan ‘burn (intr.)’ (cf. Goth. *brinnen, OE *brōnan, byrnan) < PIE *g"her-n- (Pokorny’s (1958:143) derivation from PIE *bh(e)ru- ‘boil’ is again more difficult semantically). Since we have somewhere between three to six examples of Gmc. *b < PIE *g"h in initial positions not preceding Gmc. u, and only one apparent counterexample to this change, i.e. *warno-, it is plausible if not entirely certain that Gmc. *ban-ōn derives from an o-grade form *g"hon-.

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In Vedic, reflexes of *kʰrmi- and *gʰen- collocate, though Skt. kǐmi- is used with the sense of ‘body-internal worm’ rather than ‘dragon’, as in example (15).

(15) udyānā ādityāḥ kṛmīṃ hantu nimrōcan hantu raśmibhiḥ yē antāh kṛmayo gāvi [1]


hatāsō asya veśāso ṭatāsahā pariśeṣaṣā átho yē kṣullakā īva sārve tē kṛmayo ṭatāḥ [5]

... (AV 2.32,1,3-5)

‘May the rising sun slay the worms; may the setting (sun) with his rays slay the worms which are inside the cattle. [1]

... Like Atri, like Kanva, like Jamadagni, I slay you, o worms, with the incantation of Agastya, I crush up the worms. [3]

Slain is the king of the worms, and slain is their governor. The worm is slain, having a slain mother, having a slain brother, having a slain sister. [4]

Slain are his vassals, slain is his neighbours; moreover, those who are as vile little ones, all of those worms are slain. [5]

...’

Like the slaying of dragons, in the Atharvaveda the slaying of kǐmi- is frequently associated with Indra, as in examples (16), (20), and (17) below.

(16) asyēndra kumārāsyā kṛmīṃ dhanapate jahi [ab] (AV(Ś) 5.23,2)

‘O Indra, lord of treasure, slay the worms in this boy!’

(17) indrasya yā maḥī ḍṛṣāt kṛimer viśvasya tāhranī [ab]
    tāyā pinaṣmi sāṁ kṛmīṃ ḍṛṣādā khālvarēva [cd] (AV(Ś) 2.31,1)

25 As Watkins (1995: 521n2) comments, the manuscripts vary between kṛimi- and kīmi-, and though Roth and Whitney (1856) adopt the former, the latter seems to be the original.

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‘With the great mill-stone of Indra which overcomes all worms
I do grind to pieces the worms, as lentils with a mill-stone.’

The ड्रसात mentioned here may be compared with Indra’s use of an अस्माना in RV 4.22, as shown in example (18) below.

(18) yó अस्मानां शवास बिर्ह्रड इति (RV 4.22,1d)
‘Which stone (Indra) comes wielding with strength’

Further, the use of sām pinasmi in (15) and (17) may be compared with the use of sām-वपिष with reference to Indra’s slaying of Vritra three times in the RV, once with the object āhim, RV 6.17 (=example (19)), and twice with the object vrtrām, RV 3.30,8 and 4.18,9 cf. Benveniste and Renou (1934: 120).

(19) ...वाज्रां सहासरभ्रष्टिः ... चताश्रम ... येनावान्तन āhim साम पिनाग जीशिन (RV 6.17,10)
‘...the vajra with a thousand points and a hundred edges ... with which you ground up the roaring serpent, O Drinker of the Third Pressing (of Soma).’

Similarly, AV(Ś) 5.23 invokes Indra (alongside Sarasvati and Agni) to assist in the destruction of worms:

(20) sārveśāṁ ca krimināṁ sārvāśāṁ ca kriminām [ab] bhinādmy अस्माना शिरा दहाम्य अग्निम मुक्षम [cd] (AV(Ś) 5.23,13)
‘Of all the male worms and all the female worms,
I split the head with a stone; I burn their face with fire.’

Again, this is a root which also appears in the context of the RV dragon-combat, where धिद- is used with to describe Indra’s splitting of the head of Vritra (cf. RV 8.6,6; 1.52,10 etc. discussed below in Section 3.1.1).

Thus, though the AV verses use क्रिमि- in the sense of body-internal worms, the slaying of such worms is often associated with Indra and employs the same verbs and imagery used to describe Indra’s slaying of the dragon Vritra.
Iranian provides even better evidence for *g"h(e/o)n- k"rmi- as a synchronic variant of *g"hen- hšég"him in PIE, as Pahlavi kirm in used to refer to a draconian creature in the Kārnāmag, where it occurs with a reflex of PIE *g"hen- (cf. Watkins 1995: 302), as shown in example (21).

(21) ān kirm ōzad būd

(Kārnāmag ī Ardaxšīr ī Pābagān 9.1)

‘(Ardashir) had slain that dragon’

The comparison of the Indo-Iranian examples involving *k"rmi- with Gmc. *wurmi-banōn suggests that even in during PIE there was variation between *k"rmi- and *hšég"hi- as the second term of the basic dragon-slaying formula. This PIE dragon-slaying formula would thus be better represented as *g"hen- {hšég"hi-, k"rmi-}.²⁶,²⁷

2.5 Conclusions

Thus the basic Indo-European dragon-slaying formula may be reconstructed at four different levels. For Indo-Iranian, we may reconstruct the complete formula *(é)g"hent hšég"him. On the basis of Indo-Iranian and Greek, we may reconstruct the incomplete formula *g"hen- hšég"him. For ‘core PIE’ (PIE after the Anatolian and Tocharian branches have split off), we can reconstruct an incomplete formula with variation of the second term: *g"hen- {hšég"hi-, k"rmi-}. These three reconstructions are highly probable, due to the etymological correspondence of both terms. Lastly, we have evidence for the formula *g"hen- {hšég"hi-, k"rmi-} occurring with lexical renewal/replacement (of the second term), if the Hittite evidence is admitted.

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²⁶ Thanks to Jay Fisher (p.c.) for helpful discussion on this point.
²⁷ Watkins 1995 discusses other examples which one might taken as representing formulaic variants of *g"hen- hšég"him at the stage of PIE, such as use of the PIE root *terh₂- ‘cross over, overcome’ (Watkins 1995: 343-346), which appears in a dragon-slaying context in Hittite, Indo-Aryan, and Iranian, see (i), (ii), (iii) below.
(i) n=an=za namma ³tišyanaka(n) tarahjiwan dāš (CTH 321 §25, KBo. 3.7 iii 24-5)
‘(Tarḫummas) began to overcome the serpent’
(ii) indrena yuji tarušcma vyršstvām (RV 7.48,2)
’yoked with Indra may we overcome Vrita’
(iii) taurusšiatvār ṫarvōram tūrūnaṃ tūrṇaṃ (Yt. 13.38)
‘you overcome the resistance of the Turanian Danu’

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3. Splitting Dragons, Mountains, and Forts in the Rigveda

The name of Indra’s serpentine adversary, vytrá, derives from \( \sqrt{yp} \)- ‘to enclose, cover, obstruct’ with the instrumental suffix \(-tra\), and, indeed, the obstruction of the flowing of the waters is the primary action of Vritra. These ‘waters’ most likely, at least originally, refer to rivers which are released from the mountains during the late spring/early summer snow-melt (Schmidt 1968, Falk 1997, Witzel 2004). The personified obstructions are likely to be dams which could form in the river courses, preventing the vital waters from flowing along their normal paths, cp. the river name sárasvatī ‘the one with many ponds’.

Sometimes the waters are metaphorically compared to cows (e.g. RV 1.32), and sometimes it is in fact literally cows which are rescued from the serpent (e.g. RV 2.19,3; 6.17,1; 10.48,2; cf. Venkatasubbiah 1965).

Therefore, I examine not only the formulaic use of \( \sqrt{bhid} \)-, \( \sqrt{vraśc} \)-, and \( \sqrt{ruj} \)- where \( ahim \) or \( vytrām \) is the patient of one of these roots, but cases where the patient is not the dragon but something associated with the dragon-fight, such as the mountain in which the waters are trapped. I also consider instances of these roots used with Indra as agent and púras ‘forts’ or gotrás ‘cattle-stalls’ as patient, which function as enclosures for cattle. For the latter instances I limit the consideration to those cases where Indra’s dragon-combat is also mentioned in the same hymn.

Just as Vritra’s basic function is enclosing (\( \sqrt{vy} \)-) precious elements (waters, cattle etc.), Indra’s basic function is that of (violently) opening up enclosures containing precious elements, whether these be obstructing serpents (e.g. vytrā), mountains in which waters are trapped, or cattle-enclosures (gotrās, púras). Thus, though the number of times Indra’s slaying of the dragon is described using \( \sqrt{bhid} \)-, \( \sqrt{vraśc} \)-, or \( \sqrt{ruj} \)- is comparatively small, the number of instances in which they occur in descriptions of other aspects of the dragon-fight is not inconsiderable (see Table 1). As will be shown, these roots are intimately connected with Indra’s basic function as a (violent) discloser of precious commodities in general, and more specifically with Indra’s actions in the

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28 Also see Falk 1997, who suggests that the Vritra-myths are more likely to have originated when the Indo-Aryans inhabited Greater Iran, as the rivers coming down from the mountains of Afghanistan are much more uncertain in their courses than those of the Punjab, i.e. more subject to obstructions which could dam or divert the waters from their normal courses.

29 Herein I examine all \( ahī \)-combats, regardless of whether they have been associated with the ‘Vritra-myth’ or the ‘Vala-myth’, cp. fn.32 below.
dragon-fight — which include not only the slaying of the serpent, but also, for instance, the freeing of waters from the mountains.

3.1 √bhīd-

3.1.1 āhi-√vṛtrā-

Indra’s slaying of the dragon is described six times using forms of √bhīd- ‘split, cleave, cut’ (cf. Benveniste and Renou 1934: 119). Though √bhīd- itself apparently never occurs with the overt direct object āhīm, collocations with √bhīd- are not infrequently to be found in association with the prototypical form of the Vedic dragon-slaying formula, āhān āhīm or variants thereof involving the root √han-. For instance, in RV 2.11 – in which the formula āhān āhīm occurs at 5d, (22) – in reference to slaying the serpent abhinai twice appears with the verbal particle āva ‘down’, (23), (24).

(22) āhān āhīm śūra vṛyēṇa

‘O Hero (=Indra), with valour, you slew the dragon.’

(RV 2.11,5d)

(23) srjō mahīr indra yā āpīnvaḥ pāriśṭhitā āhinā śūra pūrvīṇ āmartyaṁ cid dāsām māṇyānaṁ āvābhīnād ukthair vāyṛdhānāḥ

‘You make flow the great ones, O Indra, which you made swell, of which many are surrounded by the dragon. O Hero. Strengthened by songs of praise, you chopped up the Dasa31 (Vṛitra), who thought himself immortal.’

(RV 2.11,2)

(24) dhīvā śāvaḥ śūra yēna vṛtrām avābhīnād dānūm aurṇavābhām

‘O Hero [Indra], put on the strength with which you chopped up Vṛitra, the Danava Aurnavabha.’

(RV 2.11,18ab)

√bhīd- therefore appears to be a legitimate formulaic variant of √han- in the dragon-slaying formula, as is borne out by the co-occurrence in

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30 Based on an examination of the relevant entries in Graßmann (1873), √bhīd- occurs in various forms a total of 88 times in the Rigveda.

31 The use of dāsā to refer to Vṛitra recalls the Iranian name of the serpent, ažī dāḥāka, suggesting that this is another element common between the Indo-Aryan and Iranian myths. Falk (1997: 79) notes that ‘[Indo-Aryan] [n]ames like dāsa (dahī) or pāṇi (parnoi) bear witness to an at least historical contact with peoples we know from Greek sources to have lived in Greater Iran’. Hist. Sprachforsch. 121, 3-53, ISSN 0935-3518 © Vandenhoeck & Ruprecht GmbH & Co. KG, Göttingen 2008 [2010]
single hymns of dragon-slaying formulae involving both roots. However, to say that these collocations with √bhid- are formulaic variants of the √han-√áhim/vytrām formula is not to say that they are entirely equivalent. Perhaps it would be better to say that bhid vytrām is a FORMULAIC ASSOCIATE of √áhim, that is, they are formulae which co-occur in the context of the dragon-combat (similar to the observation of Matasović 1996: §114 that in both Old Irish and Vedic texts, reflexes of PIE *gʸ̈ous h typo- ‘to drive cattle’ occur alongside reflexes of PIE *gʷhen- ‘to slay’, see Section 1 above).

The ‘splitting’ of the dragon is a rather more specific event than the ‘slaying’ of the dragon. Forms of √bhid- in the dragon-slaying context specifically denote an opening-up of the dragon. This is obvious, for instance, in RV 1.52,5d, given below in (25), where Indra’s ‘splitting’ (‘slaying’) of Vritra is likened to Trita’s ‘splitting’ (‘opening up of’) the enclosures of Vala.32

(25) tán vytrahātye ánū tsthuh útyahv ... indram
   indrah yat ... bhinād valasya paridhiṁriva tritāh

(RV 1.52,4cd,5cd)

‘Beside that Indra in the Vritra-slaying stood (his) helpers ...
When Indra ... split (Vritra) as Trita the enclosures of Vala.’

Perhaps the fact that √bhid- occurs usually with vytrām as its object, rather than √áhim, is because vytrām ‘the encloser’ forms such an excellent counterpoint to the sense of ‘splitting open’.

In RV 1.52, we also find √bhid- twice in the context of dragon-slaying, see example (25), above, and (26), below.

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32 Schmidt (1968) concludes that the Vritra and Vala myths are not identical, the basic differences being that the former is associated with the release of the waters and the latter with the release of light from darkness. Even if one decides that synchronically these myths are distinct, this certainly does not rule out their having developed from a common source. Stanley Insler (p.c.) suggests that vala may an l-variant from √vr-, the source of vytrā- (though he maintains that the myths are different enough to rule out derivation from a single original myth), reflecting the fact that both Vritra and Vala enclose elements necessary for life (water and cattle, respectively). In any event, at some level the Vritra and Vala myths, whatever the exact details of their Indo-Aryan origins, both appear to reflect a more basic PIE idea of slaying of a serpent who encloses some vital element.
The collocation √bhida-vyātāśya śirasa ‘the head of Vritra’, found in RV 1.52,10d, (26) above, is found twice more in the Rigveda, at RV 8.6,6 (27) and RV 8.76,2 (28).

Forms of √bhida- in dragon-slaying contexts also occur with the verbal particle vi- ‘apart’, (27), (28), (29).

In the hymns in which (25)-(29) occur, we do not find the formula √aḥaṁ āhiṁ, however, we do find formulaic variants of the type vytra-+√han-. In RV 10.138, vi+√bhid- occurs in the same line as vytraḥāṁ ‘slayer of Vritra’, see (29) above. In RV 8.6, we find vytraḥāntama ‘best of Vritra-slayers’ at 37a; and in RV 1.52, both vytraḥāṁ ‘in the slaying Vritra’ (4c) and jaghaṇvāṁ...vytraṁ ‘having slain Vritra’ (8ab) appear.

√bhida- also occurs in a dragon-slaying context in RV 1.32, where it is used to describe the slain āhi Vritra, in example (30), as

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33 Except for hymn 8.76.
(30) nadám ná bhinnám amuyā śāyānam

‘lying yonder like a split reed’

RV 1.32 is also rife with occurrences of \(^{\text{1}}\)han-āhim/vṛtrāṁ. The most prototypical form of the dragon-slaying formula, āhann āhim ‘slew the dragon’, occurs twice, at 1c and 2a; 1.32 also contains numerous variants of this formula: āhan...prathamajāṁ āhīnāṁ ‘slew the first-born of dragons’ (3d, 4a), āhan vṛtrāṁ ‘slew Vritra’ (5a), vṛtrāṁ jaghanvāṁ ‘had slain Vrita’ (11d).

3.1.2 Mountains

In addition to describing Indra’s slaying of Vritra, forms of √bhīd-frequently occur in the context of another event closely linked with the Vedic slaying of the dragon, namely the freeing of the waters and/or cows from the mountain. Often the waters/cows are freed by Indra ‘splitting the mountain’; representative examples are shown in (31), (32), (33).

(31) bhinād girīṁ śāvasā vājram iṣṇāṁ āviśkṛṇvānāḥ sahasānā ējāh vādhīd vṛtrāṁ vājrena mandasānāḥ sārān āpo jávasā hātvāṛṣṇih

‘He (=Indra) split the mountain, sending his vajra with strength, violent, revealed his power. Intoxicated, he slaughtered Vritra with his vajra; the waters, (now) with their bull slain, flowed swiftly.’

(32) jaghāna vṛtrāṁ svādhitir váneva rurója pūro áradan ná sīndhūn bibhēda girīṁ nāvam in ná kumbbhāṁ ā gā índro akṛṇuta svayūgbhīh

‘He (=Indra) slew Vritra as an axe the tree, broke the forts, cleared a path as it were for the rivers. He split the mountain like a new water-jug, Indra brought forth the cows with his allies.’

(33) indrasya nū vīṛyāṁ prá vocāṁ yāṁ ca kāra prathamāṁi vajrī āhann āhim ānv āpās tatarda prá vakṣāṅā abhinat pārvatānāṁ

(RV 1.32,1)
How (exactly) to slay a dragon in Indo-European?

‘I tell now of the heroism of Indra,
the first which he did armed with a vajra.
He slew the serpent, afterwards drilled through to the waters,
he split through the bellies of the mountains.’

Here the sense of ‘splitting apart’ as ‘opening up’ is obvious. Note here again the linkage between dragon-slaying (āhann āhim in RV 1.32,1 = (6); jaghāna vrṭrām in RV 10.89,7 = (32); for RV 4.17, āhan- is found thrice, at 1c vrτrām...jaghanvān and 19b vrτrā...hanti, and the suppletive vadh-, 3c vādhid vrτrām ‘killed Vritra’) and the splitting open of mountains.34

3.1.3 Forts

bhid- is a root frequently used with Indra in general. bhid-+pūras ‘forts’ is a collocation occurring numerous times with ‘Indra’ as its subject, as in the examples in (35).35 Here too bhid-+pūras often co-occurs with the prototypical Vedic dragon-slaying formula in āhan-, as in RV 8.93 where vrtraḥāḥ occurs in the same verse as pūro bibheda, see example (34) below. In fact vrtraḥān- occurs seven other times in 8.93, at 4a, 15b, 16a (as vrtraḥāntama- ‘best of Vritra-slayers’), 18b, 20c, 32a (as vrtraḥāntama-), and 33a; as well, note 7b, vrtraḥya hānte ‘to slay Vritra’.

(34) nāva yó navatīṃ pūro bibhēda bāhvōjasā
āhim ca vrtraḥāvadhīt                      (RV 8.93,2)

‘Who with the power of his two arms split nine-and-ninety forts, and the Vritra-slayer killed the serpent.’

This pattern of co-occurrence of bhid-+pūras in the same hymn as one or more instances of the dragon-slaying formula in āhan- is found elsewhere as well, as shown by the examples below in (35). The (i)-examples are instances of bhid-+pūras; the (ii)-examples are instances, co-occurring in the same hymn as the (i)-examples, of the dragon-slaying formula in āhan-.

(35) a. (i) tvāṁ śatā vāngṛdasyābbhinat pūro

‘You split the hundred forts of Vangrida.’

34 Also in 4.17,7d we find āhim...vī vrścāh, on which see section 3.2.1 below.
35 See also RV 1.11.4; 1.33,13; 1.174,8; 8.1.8; etc.

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(35) b. (i) ...yāḥ satāṁ śāmbarasya pūro bhīhādasmāneva pūrviḥ
(RV 2.14,6ab)
‘...he who split a hundred ancient forts of Shambara as with a rock.’

(ii) vrtrāṁ jaghānāśānyeva vṛksām
(RV 2.14,2b)
‘(Indra) struck/slew Vritra as a lightning-bolt a tree.’

(35) c. (i) pūro vibhindānn acarad vi dāśīḥ
(RV 1.103,3b)
‘(Indra) kept splitting apart the forts of the Dasas.’

(ii) āhann āhim abhinad rauhināṁ vi
(RV 1.103,2c)
‘(Indra) slew the serpent, split apart Rauhina...’

(35) d. (i) ...vajriḥbhināt pūrāḥ
(RV 8.1,8d)
‘...the vajra-wielder (=Indra) who splits forts.’

(ii) ...vrtrahan...
(RV 8.1,14b)
‘...O slayer of Vritra...’

(35) e. (i) ayāṁ yāḥ pūro vibhināṭṭyā ōjasā
(RV 8.33,7c)
‘He (Indra) is the one who splits apart forts with his power.’

(ii) ...vrtrahan(n)...
(RV 8.33,1c,14c)
‘...O slayer of Vritra...’

In the RV 1.33, we find an instance of Indra splitting forts (36a), but no occurrence of ‘han-; however, an apparent variation of āhann āhim occurs in pāda 13c (36b).
How (exactly) to slay a dragon in Indo-European?

(36) a. ví...pūro 'bhet

‘...(Indra) **split apart** (their) forts.’

(36) b. sāṁ váţreṇa aśjat vṛtrāṁ índraḥ

‘Indra struck Vritra with his **vajra**.’

In fact, the epithet *pūrbhid* ‘fort-splitter’ is almost exclusively Indra’s, applied to him seven times in the Rigveda. Representative examples of its use are given in (37), where (i) contains *pūrbhid*, and (ii) the prototypical Vedic dragon-slaying formula with *şan-*.  

(37) a. (i) índro yāḥ **pūrbhid** āritaḥ

Indra who is honoured as **fort-splitter**.’

(ii) ...vrtrahann...

‘...O slayer of Vritra...’

(37) b. (i) índraḥ **pūrbhid**...

‘Indra, the **splitter of forts**...’

(ii) **ghnántaṁ vṛtrāṁ**...

‘...who slays the Vritras...’ (cp. 3.34,3)

The single time it appears not applied to Indra is not truly an exception, as it is used of Soma who is compared to Indra: RV 9.88,4, given below in (38).

(38) índro ná yó mahā kārmāṇi cākriṁ **hantā vṛtrānāṁ** asi soma **pūrbhit**

‘Like Indra who has done great deeds, you, O Soma, are a **slayer of Vritras**, a **fort-splitter**.’

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36 RV 3.34,1a; 3.51,2c; 8.33,5d; 8.53,1c; 10.47,4c; 10.104,8b; 10.111,10b; cp. 1.11,4a *purāṁ bhindūr*.
The splitting of forts also associates with dragon-slaying, e.g. pūro bibhēda with āhīṁ ... vṛtrahā in RV 8.93,2 =(34), and with vṛtrahā in RV 9.88,4 =(38).

As well as pūrbhīd, Indra is twice given the epithet gotrabhīd ‘splitter of cattle-stalls’, RV 6.17,2c, 10.103,6a (shown below in (39)), consistent with his role as a discloser of precious commodities.\(^{37}\)

(39) gotrabhidāṁ govidāṁ vājrabhūṁ

‘Splitter of cattle-stalls, kine-winner, vajra-armed’

3.2 \(^{√}\)vraśc-
3.2.1 āhī-/vṛtrā-

A semantically related root \(^{√}\)vraśc- ‘split, hew, cut, rip’, usually with the verbal particle vi ‘apart’, also appears several times in the dragon-slaying context (cf. Benveniste and Renou 1934: 119; Watkins 1995: 309). Here again, forms of this root also often co-occur with the prototypical Vedic dragon-slaying formula \(^{√}\)han-+āhī-/vṛtrā-. Forms of \(^{√}\)vraśc- appear three times with āhīṁ as the overt object, RV 2.19,2b; 3.33,7b; 4.17,7d – given in (40)-(42) below, where (a) contains the dragon-slaying formula with \(^{√}\)vraśc-, (b) the prototypical dragon-slaying formula with \(^{√}\)han-.

(40) a. āhīṁ indro arṇovītam vi vṛscat

‘Indra split apart the flood-enclosing serpent.’ (RV 2.19,2b)

(40) b. ...āhīhā...

‘...dragon-slayer (=Indra)...’ (RV 2.19,3b)

(41) a. indrasya kārma yād āhīṁ vivṛscat

‘Indra’s deed, that he split apart the serpent.’ (RV 3.33,7b)

(41) b. āpāhan vṛtrāṁ paridhīṁ naḍīnāṁ

‘(Indra) struck down Vritra, the enclosure of currents.’ (RV 3.33,6b)

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\(^{37}\) The epithet govīda- ‘kine-winner’ co-occurs with both pūrbhīd (RV 8.53,1c = (37a-i)) and gotrabhīd (RV 10.103,6a = (39)).
How (exactly) to slay a dragon in Indo-European?

(42) a. áhīn vājreṇa maghavan vi vṛṣcaḥ

‘O Maghavan (=Indra), split apart with your vajra the serpent.’

(RV 4.17,7d)

(42) b. hántā yō vṛtrāṁ...

‘(Indra) who is the slayer of Vritra.’

(RV 4.17,8c)

(43) a. āsyēd evvā śāvasā śuṣāntaṁ vi vṛṣcad vājreṇa vṛtrāṁ āntaḥ
gā nā vrānā avānīr amuṇcad abhi śrāvo dāvāne sācetāḥ

‘Through his strength, Indra with his vajra split apart the hissing Vritra. The rivers, which were like penned-in cattle, he freed, with the idea to give them away for the sake of fame.’

(RV 1.61,10)

(43) b. āsmā īd u gnāś cid devāpatnīr āndrayārkāṁ āhītāva ūvuh

‘To him, to Indra, even the wives of the gods, the divine consorts, during the dragon-slaying wove songs of praise.’

(RV1.61,8ab)

(44) a. vṛtrāṁ yād ugrō vy āvṛṣcad ojasāpo bibhrataṁ tāmasā pārīvṛtam

‘...as the powerful one (=Indra) with strength split open the darkness-enclosed Vritra, who abducted the waters.’

(RV 10.113,6cd)

(44) b. devēbir īndro maghāvā sayāvabhir vṛtrāṁ jaghanvāṁ...

‘Indra Maghavan, with his followers, the gods, having slain Vritra...’

(RV 10.113,2cd)

In example (45), Indra splits apart nāva...navatiṁ ca bhogāṁ.

(45) nāva yād asya navatiṁ ca bhogāṁ sākāṁ vājreṇa maghāvā vīvṛṣcāt

‘When Maghavan (=Indra) with his vajra simultaneously split apart nine-and-ninety coils (of the serpent).’

(RV 5.29,6ab)
Sāyāna takes bhogān to mean ‘forts’, presumably on the basis of the parallelism with RV 8.93,2 (given as example (34) above). However, bhogān derives from the root √bhuj- ‘to bend’, and appears as the possessive complement of áhi- in RV 6.75,14, example (46) below, where it occurs as a metaphorical description of an archer’s brace.

(46) áhir iva bhogaiḥ páry eti bāhūṁ...

‘As a serpent winds its coils around the arm...’

(RV 6.75,14a)

Again, vivrscat co-occurs in the hymn with the prototypical Vedic dragon-slaying formula; in fact two of the instances of áhann áhim occur in this hymn, at 2c, 3d, given below in (47).

(47) a. ādatta vájram abhi yád áhíṁ hánn apó yahvīr asrjat sártavā u

‘...then (Indra) grasped his vajra when he slew the serpent. He released the swift-streaming waters to flow free.’

(RV 5.29,2cd)

(47) b. tád dhi havyāṁ mánuṣe gā ávindad áhann áhim papivāṁ indro asya

‘...then this oblation (Soma) found cattle for man; having drunk of it, Indra slew the serpent.’

(RV 5.29,3cd)

In addition to the above cases where áhi-/vṛtrā- is the literal object of √vṛaśc-, there are two instances where the slain serpent or the slaying of the serpent is compared to the hewing (√vṛaśc-) of a tree, namely RV 1.32,5 and 1.130,4, given below in examples (48), (49).

(48) áhan vṛtrāṁ vṛтратāraṁ vyāṁsam indro vajreṇa mahatā vadhēna skándhāṁśiva kūḷiśenā vivṛaścāhīṁ sayata upapīk prthivyāḥ

‘Indra, with his powerful slaying vajra slew the wide-shouldered Vrita, worst of Vrittas/obstructers. As tree-trunks split apart by an axe, the serpent lies flat on the earth.’

(RV 1.32,5)

38 Geldner (1951-1957) renders as jüngstgeborenen (Gewässer).
How (exactly) to slay a dragon in Indo-European?  

(49) dāḍṛḥāṇo vájram indro gābhastyoh kṣádmeva tigmām āsānāya sāṁ śyad ahihātyāya  
sāṁ śyat  
...  
tāṣṭeva vṛksāṁ vanino nī vṛścasi paraśvēva nī vṛścasi  
(RV 1.130,4abc,4fg)  
‘Grasping his vajra with two hands, made it sharp like a carving-knife for hurling, made it sharp for slaying the serpent...you cut down the trees, as a craftsman the tree, cut them down as with an axe.’

These hymns too contain instances of the prototypical Vedic dragon-slaying formula, co-occurring with śvraśc-. On the occurrences of this formula in RV 1.32, see section 3.1 above, following example (30); in RV 1.130, the áhann āhim formula, in the form ahihātyāye, occurs in the same line as śvraśc-, see (49) above.

3.2.2 Trees  
In fact, śvraśc- is often used to describe the (literal or metaphorical) hewing of trees, wood or other vegetation; aside from (48) and (49), śvraśc- occurs in this context five other times: in the nominal form vraskā in RV 1.162,6a (yāpavraskāh ‘hewers of the sacrificial post’); in a verbal form with ‘tree’ or ‘plant’ as its object in RV 6,2,9d (vānā ‘tree’), 6,8,5d (vaninam ‘tree’), 8,40,6a (vratāter guspitām ‘tangle of a creeping plant’), 10,28,8b (vānā ‘wood’). As a representative example, RV 8.40,6a, from a hymn addressed to Agni and Indra, is given below in (50).

(50) ápi vṛścā purāṇavād vratāter iva guspitām õjo dāsāsyā dambhaya  
(RV 8.40,6abc)  
‘Split up, as in former times, like the tangle of a creeping plant, confuse the power of the Dasa.’

Here śvraśc- and bhid- differ in their distribution. As above, śvraśc- is used to describe the hewing of trees, whereas bhid- is never used in this way. On the other hand, bhid- is also used to describe the splitting of rocks (ádrim) and mountains (giri-, pārvata-) and forts (pūra-), while śvraśc- is not. Thus, there is not complete semantic overlap of these two forms.

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3.3 \textit{\textit{ruj}-}  
3.3.1 \textit{\textit{áhi-}/\textit{vrtrâ}-}

Forms of \textit{\textit{ruj}-} occur twice in the RV with \textit{\textit{vrtrâ}-} as its object, as shown in examples (51) and (52a). In RV 8.6, we find the co-occurrence of a variant of the dragon-slaying formula in \textit{\textit{han}-} (52b).

(51) \textit{sá̄n vrtréva dásam \textit{vrtrahárujam}}  
\hspace{1cm} (RV 10.49,6b)  
\textit{I broke up/crushed} the Dasa, like the Vritra-slayer the Vritras.’

(52) a. \textit{\textit{v} \textit{vrtrám} parvasá́ \textit{ruján}}  
\hspace{1cm} (RV 8.6,13b)  
…when (Indra) \textit{broke Vritra apart} joint by joint

(52) b. \textit{\textit{vrtrahantama}}…  
\hspace{1cm} (RV 8.6,37a)  
‘…\textit{O best slayer of Vritras}…’ (nb. 8.6,6 with \textit{\textit{vraśc}-}, given above in example (27))

The same verbal root is used to describe Indra’s ‘breaking apart’ of Vritra’s jaw in RV 10.52 (53a-i), which co-occurs in the same verse with a variant of the dragon-slaying formula in \textit{\textit{han}-} (53a-ii). Similarly, see (53b), with the same basic pattern of co-occurrence of forms \textit{\textit{ruj}-} and \textit{\textit{han}-}.

(53) a. (i) \textit{\textit{v} \textit{vrtrásya háñu \textit{ruja}}}
\hspace{1cm} (RV 10.52,3b)  
‘(Indra), \textit{break apart Vritra’s jaws}’

(ii) \textit{\textit{vrtrahann}…}
\hspace{1cm} (RV 10.52,3c)  
‘…\textit{O slayer of Vritra}…’ (cp. 10.52,2b)

(53) b. (i) \textit{\textit{v} \textit{vrtrásya} samayā́ pāśyā\textit{rujāḥ}}
\hspace{1cm} (RV 1.56,6d)  
‘You \textit{broke apart Vritra’s jaw(?)}’

(ii) \textit{\textit{áhaν \textit{vrtrām}…}
\hspace{1cm} (RV 1.56,5d)  
‘You \textit{slew Vritra}…’

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3.3.2 Forts

Like \( \text{\textit{bhid}} \), \( \text{\textit{ruj}} \) is also used to describe Indra’s destruction of forts: \( \text{(54a)}, \text{(54b)}, \text{(55a)} \); and cattle-stalls: \( \text{(54c)} \). Here we find the co-occurrence in the same hymn of variants of the dragon-slaying formula in \( \text{\textit{han}} \) (the (i)-examples contain instances of \( \text{\textit{ruj}}+\text{\textit{puras}} \), the (ii)-examples (variants of) the dragon-slaying formula in \( \text{\textit{han}} \)).

\( \text{(54) a. (i) } \ldots \text{\textit{ruj}á\textit{h púrō dásīr}} \ldots \) (RV 4.32,10bc)

‘...which Dasas’ \textit{forts you broke}...’

(ii) \ldots \text{\textit{vṛtrahan}}...

‘...O slayer of Vritra...’

\( \text{(54) b. (i) } \text{\textit{rurója púro}}...

‘...he \textit{broke the forts}...’ (see (32) above)

(ii) \ldots \text{\textit{jaghānā vṛtrāṁ}}...

‘...he \textit{slew Vritra}...’

\( \text{(54) c. (i) } \text{\textit{gotrā rujānn}}...

‘...(Indra) \textit{breaking the cattle-stalls}...’

(ii) apō \textit{vṛtrāṁ vavrivāṁs pārāhan}

‘He (=Indra) \textit{slew the flood-obstructing Vritra}.’

In RV 6.32 (55) – a rather etymological verse – \( \text{\textit{ruj}}+\text{\textit{puras}} \) appears without a co-occurring form of the dragon-slaying formula in \( \text{\textit{han}} \).

\( \text{(55) a. } \text{\textit{pūrāḥ purohā...dṛṭhā rujoja}}... \) (RV 6.32,3cd)

‘...\textit{The Fort-breaker} (=Indra) \textit{broke the strong forts}’

\( \text{(55) b. } \ldots \text{\textit{rujād ádriṁ}}...

‘...he (=Indra) \textit{broke the mountain}...’

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3.3.3 Mountains and Trees

Forms of √ruj- are also used to describe Indra’s breaking apart of the mountain containing the waters – see (55b) above, as well as RV 6.30 (56) below; in the latter case the same hymn also contains a form of the dragon-slaying formula in √han- (56b).

(56) a. tvám apó ví dúro viṣūcīr indra ṛṣṭhām arujāḥ párvatasya

(RV 6.30,5ab)

‘You, Indra, (let) the waters (run) through the doors on all sides, broke the firmness of the mountain.’

(56) b. āhan āhim pariśāyānam ārṇo

(RV 6.30,4c)

‘You slew the serpent who made the floods lie down.’

Only once does √ruj- occur referring to the breaking of trees, at RV 6.6,3d.

3.4 √bhid-kāmi-

As discussed above in Section 2.4, √bhid- also occurs in the Atharvaveda with kāmi-, as in example (20), repeated below as (57).

(57) sārveṣāṃ ca krimīnāṁ sārvāsāṃ ca krimīnām [ab]

bhinādmy āśmanā śīra dāhāmy agnīnā mūkham [cd]

(AV(Ś) 5.23,13)

‘Of all the male worms and all the female worms, I split the head with a stone; I burn their face with fire.’

It would seem that like the basic dragon-slaying formula, *g’hēn-\{h,ēg”hi,- k”kmi\}-, the ‘dragon-splitting’ formula involves variation of the second term between *g’hēn- *h,ēg”hi- and *k”kmi-. Thus: *bhēid-\{h,ēg”hi,- k”kmi\} – which is also supported by Iranian, as shown below in Section 4.

3.5 Conclusions

Forms of √bhid-, √vraśc-, and √ruj- are all used to describe Indra’s slaying of Vritra (in addition to the slaying of other adversaries of Indra and other deities/heroes), as well as other deeds of Indra during or associated with the dragon-fight. However, the distributions of these three roots are not identical. Forms of √bhid- and √ruj- are also employed to describe the splitting/breaking of mountains (párvata-,
girí-) and forts (púras), while √vraśc- never takes either of these as object. On the other hand, √vraśc- is frequently used to describe the splitting of trees (vānā- etc.) or other vegetation, while √bhid- is never used in this way and √ruj- only once (RV 6.6,3d).

RV 10.89 (example (32), repeated below as (58)) is a particularly revealing verse, for here we find a variant of the Vedic dragon-slaying formula in √han- co-occurring not only in the same hymn but in fact in the same verse with both a form of √bhid- (applied to girí) and √ruj- (applied to púras).

(58) jaghāna vrātrām svādhitir vāneva rurōja pūro āradan nā sīndhūn
bībhēdā girīm nāvam in nā kumbhām ā gā indro akṣṇuta svayūghbih

(RV 10.89,7)

‘He (=Indra) slew Vritra as an axe the tree, broke the forts, cleared a path as it were for the rivers. He split the mountain like a new water-jug, Indra brought forth the cows with his allies.’

This verse exemplifies the interconnectedness of the Vedic dragon-slaying formula in √han- with collocations built around forms of √bhid-, √vraśc-, or √ruj- referring to Indra’s splitting or breaking open of mountains or forts which contain waters or cattle – events closely linked to Indra’s slaying of the dragon Vritra. This co-occurrence of formulaic associates (see above, Sections 1 and 3.1.1) has been shown throughout this section, emphasised by the pairing of examples from the same hymn containing an instance of Vedic dragon-slaying formula in √han- and a form of √bhid-, √vraśc-, or √ruj- whose patient is the mountain containing the trapped waters, a fort or cattle-pen or the serpent Vritra itself. Table 1 summarises this network of co-occurrences of collocations containing these four roots in the context of the Indra-Vritra combat:

<table>
<thead>
<tr>
<th>√han-</th>
<th>√bhid-</th>
<th>√vraśc</th>
<th>√ruj-</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.32</td>
<td>āhann āhim (x2) [1c,2a], āhan...pratha- mājāṁ āhīnām (x2) [3d,4a], āhan vtṛām [5a], vtṛām jaghanvāṁ [11d]</td>
<td>(vtṛām) nadāṁ nā bhinnām [8a], prā vākṣānā abhinat pārvatānām [1d]</td>
<td>skāndhāhṣeva ...vīvyakṣāhīḥ [5cd]</td>
</tr>
</tbody>
</table>

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| 1.53 | vytrahātyaśu (6b) | abhinat pūro [8c] |  |  |
| 1.56 | áham vytrāṁ (5d) |  | vi vytrāsya... arujah [6d] |  |
| 1.61 | ahihātya (8b) |  | vi vyāc... vytrāṁ [10b] |  |
| 1.101 | áham áhim (2c) | pūro vibhindān [3b] |  |  |
| 1.130 | ahihātyāya (4c) |  | vanino ni vyācasi [4fg] |  |
| 2.11 | áhamn áhim (5d) | dāśām...avābbhi nad [2cd], vytrāṁ avābbhi- nad [18ab] |  |  |
| 2.14 | vytrāṁ jaghāna (2b) | pūro bibheda [6ab] |  |  |
| 2.19 | ahihā (3b) | áhim...vi vyāc [2b] |  |  |
| 3.33 | ápāhan vytrāṁ (6b) |  | áhihī vivyācāt [7b] |  |
| 3.34 | ghnāntah vytrāṁi [11d] | indrāḥ pārbhid [1a] |  |  |
| 4.6 | vytrāṁ... pārāhan (7a) |  | gotrā rujānm [8d] |  |
| 4.17 | vytrāṁ... jaghānvaṆ [1c], hāntā yā vytrāṁ [8c], vytrāṁ hantī [19b], vādhīd vytrāṁ [3c] | bhinād girīn [3a] | áhihī...vi vyāc [7d] |  |
| 5.29 | áhihī hānm (2cd), áhamn áhim (3d) | (āher) bhogān... vivyācāt [6ab] |  |  |
| 6.30 | áhamn áhim (4c) |  | dhīhām arujah pārvatasya [5b] |  |
| 8.1 | vytrahan (14b) | bhināt pūrah [8d] |  |  |
| 8.6 | vytrahanama (37a) | vi...vytrāsya... áro bibheda [6] | vi vytrāṁ...rujān [13b] |  |
| 8.33 | vytrahan(0) (x2) [1c,14c] | pūro vibhinnāṭy [7c], pārbhid [5d] |  |  |
How (exactly) to slay a dragon in Indo-European?

<table>
<thead>
<tr>
<th>8.93</th>
<th>√hann-</th>
<th>√hīd-</th>
<th>√vraśc-</th>
<th>√ruj-</th>
</tr>
</thead>
<tbody>
<tr>
<td>√hānim ca √vṛtrāvādādīt</td>
<td>pūro bibhēda</td>
<td>[2ab]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>√vṛtrāhān- (x5) [4a,15b,18b, 20c,33a], √vṛtrāhāntama- (x2) [16a,32a]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.88</td>
<td>hanā √vṛtrājām</td>
<td>pūrbhit [4b]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.49</td>
<td>√vṛtrāhā</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>√vṛtrahān [3c]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.89</td>
<td>jaghānā √vṛtrām</td>
<td>bibhēda girin [7c]</td>
<td></td>
<td>rurōja pūro [7b]</td>
</tr>
<tr>
<td>10.113</td>
<td>√vṛtrāhān jaghānāvām [2d]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.138</td>
<td>√vṛtrāhā [5b]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AV(S)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1: Forms of √hīd-, √vraśc-, or √ruj- and their co-occurrence with √hānim √ahīm and its variants (RV unless otherwise noted)

I argue that these data provide evidence for a PIE formula *bheid- {hʒegʰʰi-, kʰrmi-} ‘split serpent/worm’, and that the instances with √vraśc-/vṛśc- and √ruj- represent ‘renewed’ formulae, varying √hīd-.

√hīd- is the form with the soundest IE etymology, which is straightforward; it derives from PIE *bheid-, with cognates in Italic (Latin findere ‘to split’, fissurā ‘cleft, fissure’) and Germanic (Goth. beitan ‘to bite’, OE bītan ‘to bite, to cut (with a sword)’).

The root √vraśc-/vṛśc- has no obvious IE cognates and is in fact not particularly well-behaved even in Sanskrit: (1) the future vṛkṣāyāti, as well as the Atharvaveda gerund vṛṣṭvā, are formed as if derived from a base *vr(a)sī- (cf. Whitney 1891: §221b); (2) the derivative vṛska- ‘splitting, hewing’ (in RV 1.162,6a yūpavṛskās ‘hewers of the

Bolding indicates that patient of the verb is √hīm or vṛtrām (or kṛmin, or a body-part of vṛtrām or kṛmin); plain roman indicates that the object is ‘mountain’ or ‘rock’; and italics indicates that the object is ‘fort/cowpen’ or ‘tree’.

Skt. -s becomes -k before s, and -Ś before t, th in internal sandhi, cf. Whitney (1891: §218).

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sacrificial post’) shows no palatalisation of the sk-cluster, a process which presumably occurred in pre-Vedic; (3) the ta-participle vrkñá and the RV gerund vṛktvī appear to reflect a base *vr(a)k-. On etymological grounds alone we can thus rule out vṛasi-c/-vrsci- as reflecting the form of an earlier PIE formula.

vṛaj- has been related to Grk. ἁγνός ‘mournful, sad’, Latin lugere ‘to mourn’, Lettish lauzit ‘to break the heart’, and thus could be derived from PIE form *leuǵ- ‘to break’, if we accept that Sanskrit has preserved the original meaning and that Latin, Greek and Lettish forms reflect a later semantic development – much less straightforward than the etymology of ḵhíd-.

Moreover, ḵhíd- is the form which most frequently occurs in the dragon-slaying context and has the advantage of having a more specified semantics than vṛaj-.

4. Dragons and worms: Splitting dragons in Iranian

Iranian also offers evidence for the reconstruction of *bheid-
{ḥég”hi-, k”̣mi-}.

In the Pahlavi Kārnāmag, the hero, Ardashir, kills a kirm, who lives in some sort of mountain fortress, worshipped by a group of people who feed it on the blood of cattle (see Section 2.4 above). Ardashir, on the pretence of feeding the worm cow’s blood, instead pours molten brass into its mouth, and then,

(59) kirm čiyōn rōy ŏ tan mad pad 2 škāft

(Kārnāmag ī Ardaxšīr ī Pābagān 8.11)

‘As the brass permeated through the whole body, the Worm burst [=škāft ‘split’ - BMS] asunder into two pieces.’

Here the second term has undergone renewal and appears as škāft. Obviously this is not a perfect correspondent for the Vedic formula(e) in terms of etymology – due to the lexical renewal – but the semantics are preserved.

As in the RV, the Pahlavi instance of ‘splitting the dragon’ co-occurs with a reflex of PIE *g”hen- {ḥég”hi-, k”̣mi-}, cited earlier as (21), repeated below as (60).

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41 Translation from Sanjana (1896).
(60) ān kirm ōzad būd

(Kārnāmag ī Ardaxšīr ī Pāhagān 9.1)

‘(Ardashir) had slain that dragon’

5. Writing and cutting: splitting dragons in Germanic

There is evidence for the dragon-splitting formula in Gmc. as well, though it is less straightforward than in Indo-Aryan. In Beowulf, the eponymous hero slays a dragon; the relevant lines are given in example (61). 43

(61) ðā gēn sylf cyning
 gewēold his gewitte wǣlseaxe gebrǣd
 biter ond beausdcearp þæt hē on byrman wæg
 forwrāt Wedra helm wyrm on middan.

(Bwf. 2702a-2705) Then again the king himself (=Beowulf)
gathered his wits, drew a slaughter-seax
biting and battle-sharp that he wore on his byrnie
The Helm of the Wederas (=Beowulf) cut asunder
the dragon in the middle

The verb used here to describe the slaying of the dragon is for-wrāt, a past tense form (with verbal particle for) of OE writan < Gmc. *wreitan ‘scratch, tear, cut’. If Bwf. 2705 is, as I suggest, a reflex of PIE *bheid- {h₂égʰître, kʰ̥'rmit-}, the first term of the formula has here too, as in Pahlavi, undergone lexical renewal.

However, it is intriguing that this passage does in fact contain a reflex of PIE *bheid-: OE. biter ‘sharp, biting, bitter’ (2704a), which describes the weapon with which Beowulf ultimately slays the dragon. Note that in Vedic dragon-slaying contexts as well, references to the hero’s weapon can be involved in the formula, as in example (62), where

42 Beowulf appears to be one of the earliest OE texts, though in the last few decades this has been the subject of much debate. On the controversy surrounding the date of composition of Beowulf, see the collection of papers in Chase (1997). For persuasive linguistic arguments for maintaining a traditional early dating of Beowulf, which place the date of composition between 685 - 825 C.E., see Fulk (1992); this early dating would also be supported by the conclusions of Hock (1991, 2000) on the development of relative clause structures in Old English.

43 Beowulf has numerous similarities to the Germanic thunder-god who appears in Old Norse as Thor; cf. Müllenhoff (1849), Olrik (1903-10), Panzer (1910), Dronke (1968), Clark (1990: 29), Slade (2007).
Indra’s vajra is described as vádha, from vadh-, the suppletive aorist to han-, which appears as the verb of this clause in the formulaic phrase áhan vrtrám.  

(62) áhan vrtrám vrtratáram vyárisam indro vájreṇa mahatá vadhéna  

(RV 1.32,5ab)  

‘Indra, with his powerful slaying vajra slew the wide-shouldered Vritra, worst of Vritis/obstructors.’  

Yet, despite the apparent lack of cognates of OE. writan outside of Germanic and the singularity of the occurrence of a reflex of PGmc. *wreit- in Gmc. in the context of the dragon-fight, 45 there are reasons to believe that the formulation forwritan wyrm represents an archaism in the poem, and in fact a (partially) frozen formula.  

Firstly, forwritan itself is a hapax legomenon in OE. Writan in OE primarily means ‘to write, to form letters’, 46 though it can also mean ‘to draw’ (cf. Bosworth and Toller 1921). The earlier meaning of ‘to


45 Though note the thematic similarity of the dragon-slaying scene from the Old Norse version of Tristram and Isolde in (i) below.  

(i) hjó hann i sundr i miðju. (ON Tristrams saga ok Isöndar, Jorgensen 1999:97-98)  

‘(he) cut it (=the dragon) asunder in the middle’.  

46 Writen occurs only once elsewhere in Beowulf at l.1688, where it refers, somewhat unclearly, either to a runic inscription or an image engraved on a sword-hilt:  

(i) on ðǣ was ērif writen  

fyngewinnes syðạn flōd ofslōh  
gifen götendē giganta cyn  

‘on which [hilt] was written(?)/engraved(?) the origin of ancient strife, when the flood slew – the pouring ocean – the race of giants.’  

The ambiguity arises in part from the fact that several lines later the poem refers to runes on the sword, though it is unclear if these runes are meant to include what was written on the sword. Most likely the runes are a separate inscription:  

(ii) swā was on ðǣm scennum scīran goldes  

þurh rūnstafas rihte gemearcord  
geseted ond gesēd hwām pet swoerd geworht  

‘So/Also on the sword-hilt it was in rune-staves of shining gold rightly marked – for whom the sword was wrought.’  

As noted by Klaeber (1950: 189), it has been suggested that the earlier mentioned writen inscription was a graphic illustration. On this sword-hilt, see further Osborn (1978: 977-978) and Viswanathan (1979).
scratch, cut’ is also found, in the sense of inscribing an image\(^{47}\) or letters\(^{48}\) into wood, stone etc.\(^{49}\)

Secondly, outside of *Bwf.* 2705, OE. *writan* means ‘to cut’ only in the sense of ‘cutting into, incising’, never ‘cutting’ in the sense of ‘chopping’ or ‘hewing’.\(^{50}\) In Old Saxon, on the other hand, *uurītan* denotes not only ‘to write’, but also ‘to cut, to wound’;\(^{51}\) in Old Icelandic *rīta* ‘to scratch, to write’; cf. modern Dutch *rijten*, German *reißen* ‘to tear, to rip’. These cognates suggest that Gmc. *wreitan* had a sense like ‘to scratch, to tear, (to cut?)’. The sense ‘cut asunder’ (‘tore asunder?’) of *Bwf.* 2705 *forwrāt* clearly preserves an earlier sense of the verb, otherwise unattested in Old English. The fact that only here does OE. *writan* have this sense strongly suggests the possibility that this archaic sense is preserved due to *Bwf.* 2705 being in some sense formulaic, since formulae can serve to preserve senses lost elsewhere (see above, Section 1.1.4, as well as the English legal phrase *without let or hindrance*, which preserves a sense of *let* otherwise lost in English).

Like the Pahlavi case discussed above in section 4 here too the second term of the formula has undergone lexical renewal. Since PIE *bheid*-developed the sense of ‘bite’ in Germanic (PGmc. *beitan*), losing the earlier meaning ‘split’, it could no longer be felicitously employed in the Germanic formula, and was replaced in this case by *(for)writan* – its

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\(^{47}\) Cp. *wrīt ðysne circul mid dōnes cnīfes orde on ānum stāne* (Lchdm. i. 395,3) ‘inscribe this circle with the point of your knife on a stone’.

\(^{48}\) Cp. *genim hæslenne stīccan, wrīt dōne naman...gefylle mid ðone naman* (Lchdm. ii. 104,7) ‘take a hazel stick, write/carve your name on it,...fill the name with the blood’.

\(^{49}\) The development of ‘scratch’ to ‘write’ appears to derive from the fact that Germanic speakers first wrote on wood, evidenced by the fact that Germanic runic letters (as developed from Greek letters) avoid curved or horizontal lines, which would be difficult to cut into wood (e.g. Antonsen 2002).

\(^{50}\) Frantzen (1991: 343-344) compares *forwrāt* to the *writen* of l. 1688 (referring to the inscription on the sword-hilt), noting that both share a meaning of ‘to cut, to carve’, suggesting that *forwrītan* however means ‘to cut through’ perhaps in the sense of ‘interpret’, to ‘make meaning present’. Frantzen suggests that both acts of ‘engraving’ refer to origins (as the writing on the sword-hilt tells for whom it was first made) and ends (the slaying of the dragon). He further compares *forwrītan* to *forscrīfen* ‘proscribed, condemned’ of *Bwf*. 106, an obvious loan-calqueing from Latin *proscribere*, suggesting that *forwrītan* might bear some of the connotation of *forscrīfen*. Sharma (2005: 272ff.) pursues this latter suggestion. However, whatever other resonances/connotations *forwrāt* might have had for the audience of the poem, it still must have had a literal meaning along the lines of ‘cut asunder’, otherwise the passage would be uninterpretable.

\(^{51}\) *Hēliand* 5787-9: *...thena lichamon liobes hērren...uawand uurītan...* ‘...the body of the dear Lord...torn/(cut/wounded) with wounds’ (cited from Cathey 2002).
formulaicity suggested by the archaic nature of the meaning of *forwitan itself.52

Here too, as in Indo-Aryan and Iranian, the Beowulfian example of ‘splitting the dragon’ occurs in close proximity with an apparent variant of *g′hen- {ḥēg′hi-, k′ṭmi-}, see example (63).

(63) bona swylce læg
egeslic corðdraca ealdre berēafod
...
wyrm wōḥbogen...

(Bwf. 2824a-2825,2827a)
‘The slayer (of Beowulf) also lay (next to the slain Beowulf) –
the terrible earth-dragon, bereft of life
...
the coiled serpent...’

6. Conclusions: the validity of *bheid- {ḥēg′hi-, k′ṭmi-} and some notes on treasure-swallowing serpents

There is robust evidence for a Vedic formula meaning ‘split serpent’: {√bhid-, √vraśc-, √ruj-} {āhim, vṛtrām}, as discussed in Section 3. This formula co-occurs with forms of áhann áhim, the latter identified by Watkins (1995) as a reflex of PIE *g′hen- hēg′him, a formula widely attested in IE. In addition, forms of √bhid-, √vraśc-, and √ruj- also appear – again, usually co-occuring with forms of the Vedic dragon-slaying formula in √hān- – describing other actions of Indra occurring during or associated with the dragon-fight (e.g. splitting the mountains in which the waters are trapped). Based on etymological and distributional considerations, √bhid- appears to be the original verb of the formula, with instances containing √vraśc- or √ruj- being innovative variants.

In addition, √bhid- also occurs with kīmi- ‘worm’ in the Atharvaveda (AV(Ś) 5.23,13) using imagery similar that employed in descriptions of Indra’s slaying of Vritra in the RV (cp. RV 8.6,6; 1.52,10; also compare AV(Ś) 2.31,1 with RV 4.22,1d and 6.17,10 – as discussed in section 2.4). This combined with the appearance in the Iranian and Germanic data of reflexes of *k′ṭmi- rather than *hēg′hi- suggests that, just as we found

52 Though bītan can be used in OE. where the agent is ‘sword’, as in Bwf. 1454b, 1523b, 2578a, this is simply a metaphorical extension of the sense ‘bite’.

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that Watkins’ PIE dragon-slaying formula is better represented as \( g^{\text{hen}} \{ h^{\text{eg}}^{\text{hi}}, k^{\text{mi}} \} \), so too the PIE dragon-splitting formula is best captured as \( bheid- \{ h^{\text{eg}}^{\text{hi}}, k^{\text{mi}} \} \) – in both cases indicating the existence of variation of the second term in PIE itself.

In Iranian (Pahlavi \( k\text{irm}...\text{sk\text{"a}}ft \)) and Germanic (Old English \( f\text{orwr\text{"a}}t...\text{wyrm} \)) there is no direct evidence of the proposed PIE dragon-splitting formula which contains a reflex of PIE \( bheid- \); in both instances we find what appear to be lexically-renewed variants of the formula, where an alternative verb (Pahlavi \( \text{sk\text{"a}}ft \) ‘split’, OE. \( f\text{orwr\text{"a}}t \) ‘cut/split asunder’) appears in place of a reflex of PIE \( bheid- \). However, the context of the appearance of the Pahlavi and Old English examples is the same as the Vedic, which strongly suggests that these lone examples are cognate with the robustly attested Vedic formula \( bheid- \{ \text{\text{"a}}hi-, \text{\text{"v}}tr\text{"a}-, k\text{\text{"m}}i- \} \).

Textual reconstructions of this sort are difficult to ‘prove’. However, we can test the plausibility of reconstructing PIE \( *bheid- \{ h^{\text{eg}}^{\text{hi}}, k^{\text{mi}} \} \) against Fisher’s ‘3-2-1 rule’ (cited above in fn.16):

A traditional sequence of Proto-Indo-European date is likely when a collocation of two or more words consisting of established reflexes of IE roots, expressing the same semantic message, and retaining at least one reflex of the reconstructed roots exists in three separate branches and that one of these phrases occurs at least three times in at least one branch. In addition at least one branch should consistently deploy both roots. (Fisher 2007)

Again, this is only an evaluation metric which serves to constrain possible textual reconstructions by establishing a minimum evidence requirement; it is not a litmus test. However the reconstruction of PIE \( *bheid- \{ h^{\text{eg}}^{\text{hi}}, k^{\text{mi}} \} \) conforms to Fisher’s 3-2-1 rule.

1. It consists of two words, and occurs in three branches of Indo-European: Indo-Aryan (Vedic), Iranian (Pahlavi), and Germanic (Old English).
2. It expresses the same semantic message (i.e. ‘splitting the dragon/serpent’ in the context of a god or hero slaying a dragon) in all three languages.
3. A reflex of PIE \( k^{\text{mi}} \) appears in the formula in all three languages.
4. The phrase occurs more than three times in Vedic.
5. Vedic consistently deploys both roots, i.e. reflexes of both *bheid- and *h岐ぎ hi (or *k岐ミi-) individually, although it is the variant vrá- rather than áhi- (< PIE *h岐ぎ hi) which consistently occurs with bhíd-.53

Thus, on the basis of the evidence presented herein, *bheid- {h岐ぎ hi-, k岐ミi-} is a plausible PIE formula, which is the formulaic associate of PIE *g岐hen- h岐ぎ him, a formula established to be of PIE vintage by Watkins (1987, 1995). Since killing of a dragon by ‘splitting’ is semantically more specific than simply ‘slaying a dragon’, the reconstruction of *bheid- {h岐ぎ hi-, k岐ミi-} serves not only to strengthen Watkins’ claim that there was a specifically Indo-European dragon-slaying myth, but also helps to flesh out the details of that myth.

The ‘splitting of the dragon’ is an intriguing aspect of the PIE myth. In a future study, I shall examine in more detail the reason behind the god’s/hero’s splitting of the dragon and explore the association of other formulae (which can be reconstructed for PIE) with the PIE dragon-slaying myth. The purpose of splitting the dragon was hinted at earlier in the discussion in section 3. In the RV, Indra not only splits the dragon, but also splits the mountain guarded by the dragon in order to free the trapped waters, or splits enclosures in which cows are held. The purpose of the PIE dragon was to hoard some commodity vital to the wellbeing of PIE speakers: WATER, CATTLE (and later on the ritual substance SOMA) in Vedic, GOLD in the gift-exchange culture which supported early Germanic lord-retainer society.54

There are data suggesting that – at least in some versions of the myth – that the PIE dragon actually hoarded these precious commodities by swallowing them,55 thus necessitating the splitting of the dragon by the hero in order to recover the elements vital to his society.

53 Áhi- does occur consistently with the variant of bhíd-, i.e. vrá-.
54 On the importance of the giving/exchange of gifts, especially gold, in Anglo-Saxon and Germanic society, see e.g. Leise (1953), Irving (1968), Hill (2000).
55 For the moment I will point to only a few pieces of Vedic data:

(i) tvá̄n vrá̄n vávaśa jaghনván
    śrjā̄ śndhū̄fār áh̃nā jagr̔s̔̃nānān (RV 4.17,1cd)
    ‘You [=Indra], having slain Vritra with might, released the rivers swallowed by the serpent.’

(ii) tritāya gā ajan̔yām āber ádh̃i (RV 10.48,2b)
    ‘For Trita, I [=Indra] produced the cows from the serpent.’

And from Vedic prose:

(iii) indro vr̔tr̔m ahan...
    tāsya vr̔tr̔s̔ya śr̔ś̔t̔o gāvā ūd āyān (TS 2.1.4.5,4,6)
    ‘Indra slew Vritra...From the head of Vritra cows came out.’

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How (exactly) to slay a dragon in Indo-European?

Abbreviations

AV(Ś) = Atharvaveda Sanāhitā (Śaunakīya), Roth and Whitney 1856
Bwlf. = Beowulf, Klaeber 1950
CTH 321 = Illuyanka (entry 321 of Catalogue des textes hittites, Laroche 1971), Beckman 1982
Edda(El) = Elder/Poetic Edda, Jónsson 1949
Edda(Sn) = Snorri Sturluson’s Edda (Younger/Prose Edda), Jónsson 1959
Il. = Iliad, Monro and Allen 1982
Ol. = Pindar, Olympian odes, Snell and Maehler 1989
Pyth. = Pindar, Pythian odes, Snell and Maehler 1989
RV = Rgveda Sanāhitā, Bandhu 1963-6
TBC = Táin Bó Cúailnge, O’Rahilly 1976
TS = Tātīrīya Sanāhitā, Weber 1871-1872
Y. = yasna of the Avesta, Geldner 1886-1895
Yt. = yashō of the Avesta, Geldner 1886-1895

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Vorwort der Herausgeber

Mit dem aktuellen Band ergeben sich einige Neuerungen in der Zeitschrift *Historische Sprachforschung*:

Das bisherige Herausgebererteam wird durch Olav Hackstein (Historische und Allgemeine Sprachwissenschaft der Ludwig-Maximilians-Universität München) erweitert.

Des Weiteren wird ein neuer wissenschaftlicher Beirat die Herausgeber bei ihrer Arbeit unterstützen. Wir freuen uns darüber, dass folgende Wissenschaftlerinnen und Wissenschaftler aus verschiedenen Ländern zugesagt haben, an HS mitzuwirken:

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Vorwort

vor, von den Autoren inhaltliche Änderungen zu verlangen, wenn Teile von Beiträgen oder darin enthaltene Aussagen dem üblichen wis senschaftlichen Wohlderhalten oder den international anerkannten Geboten der Höflichkeit widersprechen.

Ferner wird von den Herausgebern regelmäßig eine Auswahl der wichtigsten Neuerscheinungen im Bereich der historisch-vergleichenden Sprachwissenschaft zur Rezension vergeben.


Schließlich werden ab sofort alle neu eingesandten Beiträge nur noch unter Einhaltung bestimmter Richtlinien akzeptiert:


Alfred Bammesberger  Olav Hackstein  Sabine Ziegler