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Anatolian and Indo-European Studies
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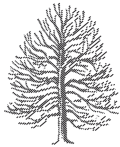
Kazuhiko Yoshida

edited by

Adam Alvah Catt

Ronald I. Kim

Brent Vine



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On Hittite *iškallāri* and the PIE “Stative”

LAURA GRESTENBERGER



1 Introduction

The development of the PIE 3sg.mid. variants **-o(r)* (“dentalless middle”) and **-to(r)* continues to be one of the most persistent problems in the reconstruction of Indo-European verbal morphology,¹ one in which Hittite, which preserves both variants, has played a crucial part. The reconstruction of **-r* as the original primary middle marker (later replaced by **-i* in the Greco-Aryan middle) is gaining ground, in no small part due to the work of our esteemed honorand. In his study of the distribution of the Hittite 3sg. mediopassive endings *-a/-āri* and *-ta/-tāri*, Yoshida (1990) argues that the final **-r* of the primary middle ending was lost in unaccented **-or#*, which gave Hitt. *-a#*, but was preserved in **-ór#*, which gave Hitt. *-ār#* and was later extended to *-āri* by means of the hic-et-nunc particle **-i*. This study confirmed that Proto-Anatolian patterned with Italo-Celtic and Tocharian with respect to its primary middle marker.

In Middle Hittite, *-ri* then spread to other middles in *-a* as well as those with a 3sg. in *-ta*, blurring the original distribution.² This insight has shifted the focus to the question of the functional difference between root-accented and ending-accented **or*-middles on the one hand, and between **or*- and **tor*-middles on the other. The aim of this paper is to shed light on the averbo of one particular **ór*-middle in Hittite, namely *iškallāri* ‘cuts’, its cognates, and its implications for the prehistory of so-called “stative-intransitive root presents.”

2 “Stative presents”

2.1. The standard reconstruction of the Proto-Indo-European verbal system includes the somewhat elusive category “stative,” sometimes used merely as a descriptive label

¹I am grateful to Hannes Fellner, Jay Jasanoff, Bernhard Koller, Melanie Malzahn, Craig Melchert, and the audience at WeCIEC 2018 for valuable discussion, comments, and criticism of this paper.

²The original rule formulated in Yoshida 1990:121 is revised in Yoshida 2011:105 to “final *-r* remained only after an accented short vowel (= after an accented mora).”

for (athematic root) presents that are reconstructed with a “dentalless” 3sg. ending $*-o(r)/-ó(r)$ (e.g. Jasanoff 2003, 2017, this volume) or $*-e(r)/-é(r)$, more often explicitly to refer to a putative third voice category besides active and middle in (pre-)Proto-Indo-European that was marked with a distinct set of endings (e.g. Oettinger 1976, 1993, Kümmel 1996, *LIV*²), originally probably identical to the perfect endings (i.e. $*-h_2e$, $*-th_2e$, $*-e$, etc.). This view of “stative” as a separate voice category has been criticized elsewhere (e.g. Jasanoff 2003:50–51, Grestenberger 2016:100–2), the main arguments being that a) the attested dentalless forms are rarely semantically stative (Hittite being a case in point), b) the attested distribution of dentalless and dental 3sg. endings depends on stem type,³ and c) while there is evidence for a functional differentiation between $*-o(r)$ and $*-to(r)$ in some branches (Celtic, Indo-Iranian), this differentiation was clearly einzelsprachlich and there is also evidence for a chronological replacement of dentalless by dental endings.⁴ The term “stative,” when used to refer to form rather than meaning, is therefore used here merely descriptively for verbs with a dentalless 3sg.

2.2 Dentalless “statives” are attested with zero grade of the root and accent on the endings (“schwundstufiger Wurzelstativ,” *LIV*² 15) and accented full grade of the root (“vollstufiger Wurzelstativ,” *LIV*² 15). Some examples are given in Table 1.

Type I: R($ó/é$)-o(r/í)		Type II: R(\emptyset)-ó(r/í)	
Ved. <i>śáye</i> , 3pl. <i>śéve</i> ,	< $*kéj-o(r)$	Ved. <i>dubé</i> ‘gives	< $*d^hug^h-ó(i)$
YAv. <i>sōire</i> , CLuv.	‘lies’	milk’, 3pl. <i>dub-ré</i> ,	‘is useful’
<i>zāyar(i)</i> (vs. “dental”		Goth. <i>daug</i> ‘is	
Gk. <i>κέῖμαι</i> , Hitt.		useful’, Gk. <i>ἔτυχον</i>	
<i>kitta(ri)</i>		‘happened to be at’	
Hitt. <i>eša(ri)</i> , YAv.	< $*h_1és-o(r)$ ⁵	Hitt. <i>urāni</i> (<	< $*ur^hH-ó(r)$
3pl. <i>āḥbāire</i> (vs.	‘sits’	<i>urāri</i>) ‘burns’, OCS	‘is hot’
“dental” 3sg. Ved.		<i>vr̥r̥ti</i> ‘to boil, seethe’	
<i>āste</i> , Gk. <i>ἦσται</i>)			

Table 1. PIE “statives.”

Villanueva Svensson (2012) argues that type I was the original, unmarked inflection for athematic root middles to “present” roots, while type II made athematic middle presents to aoristic roots. The “internal derivation” of type II R(\emptyset) middle

³Jasanoff (2003:50), for example, points out that $*-ske/o-$ and $*-je/o-$ verbs never select the dentalless set of endings in Hittite (cf. Yoshida 2018 for a possible explanation of this observation).

⁴E.g. in Hittite, where productive *-tta(ri)* tends to replace older *-a(ri)* in its canonical mediopassive functions, but cf. also cases like (archaic dentalless) Ved. *śáye* ‘lies’ vs. Gk. *κέῖται*, etc.

⁵Analyzed here as a Narten version of the accented full-grade type, cf. Villanueva Svensson 2012:335 with n. 7.

presents from R(*o*) middle aorists is introduced and motivated at length in Jasanoff 2003:159–73, so a brief summary will suffice here. Jasanoff observes that in several Indo-European languages, certain preterits or preterit-like categories with historical R(*o*) or R(*o/∅*) ablaut correlate with R(*∅*) presents, often with middle endings. Such “stative-intransitive systems” were often obscured by subsequent changes, but synchronic remnants remain in the association of class V subjunctives with class III/IV presents in Tocharian and in the association of some Hittite active *hi*-conjugation presents with historic R(*o*)-grade with R(*∅*) middle presents. Some examples are given in Table 2 (see also Villanueva Svensson 2010–1 [2012] and Jasanoff 2017 on this pattern).

R(<i>o</i>) “aorist”		R(<i>∅</i>) present	
Hitt. <i>lāki</i> ‘bends’ (tr.)	< * <i>lōg^h-e</i>	<i>lagāri</i> ‘bends’ (intr.)	< * <i>l_eg^h-ór</i>
<i>wāki</i> ‘bites’ (tr.)	< * <i>uó_h₂g^h-e</i>	[* <i>wakāri</i> /* <i>ukāri</i>	< * <i>u_h₂g^h-ór⁶</i>
[Ved. <i>ástāvi</i> ‘was praised’]	< * <i>stóu_h-e</i>	<i>istuwāri</i> ‘is known’	< * <i>stuu_h-ór</i>
Toch. B <i>wākam</i> ‘will bloom’	< * <i>uó_h₂g^h-e</i>	B <i>wokotār</i> ‘blooms’	← * <i>u_h₂g^h-ór</i>
A <i>letaṣ</i> ‘will depart’	< * <i>lōit^h-e</i>	A <i>litatār</i> ‘departs’	← * <i>lit-ór</i>
B <i>mārsam</i> ‘will forget’	< * <i>mórs^h-e</i>	B <i>mārsetār</i> ‘forgets’	← * <i>mṛs^h-ór</i>

Table 2. R(*o*)-“aorists” → R(*∅*) middle presents.

Pairs such as the ones in Table 2 are rare, however: more often, only one of the members is attested in any given language, but a pair can nevertheless be reconstructed based on the comparative evidence (cf. Ved. *ástāvi* : Hitt. *istuwāri* above).

As Jasanoff (2003, 2017) has argued, the relationship between the two members is (at least descriptively) one of internal derivation, by which the present middle is derived from the aorist middle stem by shifting the accent from the root to the endings of the strong stem and replacing the *o*-grade of the strong stem of the base with the zero grade of the weak stem (= the stem of the 3pl.).⁷ The question now is how Hittite *iškallāri* ‘cuts’, formally a stative of the *lagāri*-type, fits into this picture.

⁶Cf. Jasanoff 2003:166 and this volume; Villanueva Svensson 2010–1 [2012]:11.

⁷This description is considerably simplified. Jasanoff reconstructs original R(*ó/é*)-ablaut for “protomiddle” **b₂e*-aorists, e.g. 3sg. **lōg^h-e* ‘laid down’, 3pl. **lég^h-ṛs*, though this is revised in Jasanoff 2013 and Melchert 2013, where it is argued that the 1pl. and 2pl. had taken over the *o*-grade of the strong stem already in PIE (Anatolian also generalized the *o*-grade to the 3pl.). If verbal internal derivation worked like internal derivation in the nominal system, the derived middle present of such a stem would be expected to be 3sg. **lég^h-o(r)* (< **lég^h-er*, cf. Jasanoff 1994:164, 2003:57 on the proposed change of pre-PIE unaccented *e* > *o/ṛ*.(#)), 3pl. **l_eg^h-ró(r)*. It is tempting to speculate that this expected, but unattested, type with R(*é*) became part of the input to the remodeled thematic present conjugation in later IE, but such a connection has (to my knowledge) not yet been explored. At any rate, the stem of the reconstructed 3pl. aorist **lég^h-ṛs* was replaced by a R(*∅*) variant

3 Hittite

Hittite *iškallāri* presents several problems. The formally unambiguous attested forms either belong to the mediopassive “stative” (more accurately classified as deponent, see Grestenberger 2014, 2016, and 2018b on the various definitions of deponency), or to an active *hi*-conjugation verb. Table 3 summarizes the most important forms (cf. Neu 1968a:76, 1968b:55, *HED* 2.413, *HEG* 397–8, Kloekhorst 2008:399, Grestenberger 2014:269–70).

Active	3sg.pres. <i>iškallai</i> KBo 6.4 i 39 (OH/NS), <iš-gal-la-i> KBo 6.4 i 37 (OH/NS), <iš-kal-la-a-i> KUB 58.81 ii ² 6 (NS); 3sg.pres. <i>iškallaizzi</i> (NS); 3pl.pres. <i>iškallanzi</i> (OH/NS); 1sg.pret. <i>iškallabhun</i> (NS); 3sg.impv. <i>iškallau</i> (MH/NS); 3pl.impv. <i>iškallandu</i> (NS)
Mediopassive	3sg.pres.mid. <i>iškallāri</i> KBo 6.3 i 39 (OH/NS); <iš-kal-la-ri>, KBo 6.5 i 16, 18 (OH/NS); <iš-kal-la-a-ri>, KBo 6.3 i 37 (OH/NS)); 3sg.pret.mid. <i>iškallatta</i> KBo 8.37 i 9 (MH/NS), KUB 23.7 ii 12 (MH/NS)
Underspecified/ambiguous	pres.ptcp. <i>iškallant-</i> ‘cut off, split’ (NS); inf. <i>iškalliawanzi</i> (NS); 2sg.impv. <i>iškalli</i> : HKM 24, 51 (MH/MS), KBo 37.1 ii 16 (NS); original verbal abstract in ^{TUG} <i>iškalleššar</i> n. ‘type of dress’ (< *slitting, cutting’ or ‘what has been cut (off)’)

Table 3. Attested forms of Hitt. *iškall-*.

Given its agentive and transitive syntax, *iškallāri* does not fit into what is expected of a “stative” or middle present. The exact meaning must be either ‘cut/rip off’ or ‘tear to pieces’ (cf. the discussion in Hoffner 1997:178), exemplified by the following passage from the Hittite Laws.

- (1) takku LÚ.U₁₉.LU-aš *ELLAM*<-aš> ištamana[_n]-ššan kuiški
 if person-GEN free-GEN ear.ACC=3SG.POSS.ACC anyone.NOM
iškallāri 12 GÍN KÙ.BABBAR pāi
 tear.off.3SG.PRES.MID 12 shekel silver give.3SG.PRES.ACT
 parna-šše=a šuwāyezzi
 house.ALL=him=and look.3SG.PRES.ACT

‘If anyone tears off the ear of a free person, he shall pay 12 shekels of silver, and he shall look to his house for it’. (Hoffner 1997:27)

**l_eg^h* ‘already in Proto-Indo-European (see Jasanoff 2003:68–86, 2013:110–12 on this replacement and the evidence for preserved R(*o/e*)-ablaut in Hittite; on the latter also Melchert 2013), and it is this remodeled (3pl.) weak stem that apparently became the input for the internally derived “stative” presents of Table 2.

KBo 6.5 i 16 contains the same passage; the later version KBo 6.4 i 37 has *išgallai*, and the mediopassive forms in KBo 6.3 i 39 and KBo 6.5 i 18 (concerning the fine for cutting off the ear of a slave) are likewise replaced with active forms in the later version KBo 6.4 i 39. This strongly suggests that *iškallāri* was indeed the older, inherited present of this root and that the active *hi*-present was its later replacement.

The preterit middle *iškallatta* in KUB 23.7 ii 12 is attested on a broken tablet without syntactic context,⁸ as is its copy in KBo 8.37 i 9.⁹ The other potentially relevant form, the 2sg.impv. *iškalli*, belongs to the contested class of “*i*-imperatives,” which have been shown to correlate with “statives” in *-ā(ri)* by Oettinger (2007); he analyzes the *i*-imperatives as synchronically middle, while Kloekhorst (2008) and Jasanoff (2012) analyze them as formally active.

The participle, infinitive, and verbal abstract are morphologically underspecified with respect to voice.

To summarize, the main problem of the averbo is that the syntax and meaning of *iškallāri* are incompatible with its mediopassive or “stative” morphology, or at least (given that morphology) unexpected. Since Hittite also has a formally active *hi*-conjugation verb *iškallai* with the same meaning, one could assume that the transitive use is original to that part of the averbo. This is what Kloekhorst (2008:399) does, who reconstructs a present 3sg. **skólh_{2/3}-ei*, 3pl. **skllh_{2/3}-énti*; it also seems to be the preferred interpretation of Villanueva Svensson (2010–1 [2012]:16–7). However, as Oettinger (1976:126–7) points out, the unexpected agentive semantics make it more likely that the “irregular,” deponent form *iškallāri* was actually the older form, and that this was then “activized” to better fit the agentive syntax of this verb. We have already seen that this is also suggested by the textual layers of the Hittite Laws, where both versions are found. Moreover, it is difficult to find a synchronic motivation for a change in the opposite direction (that is, the remodeling of an inherited active, transitive *hi*-verb with middle/“stative” endings).

The (mor)phonological side presents problems, too. The “stative” ending *-āri* points to **-ór*, and this verb is treated as prototypical for the ending-accented “*a*-mediopassive” class by Yoshida (1990). But this would imply R(∅) and hence **iškallāri* < **skllh_{2/3}-ór* (cf. Melchert 1994:55), which is precisely why Kloekhorst (2008:399) reconstructs a full grade form **skollh_{2/3}-* as the original strong stem allomorph that subsequently spread to the weak stem and middle forms (a full-grade **sKelH* would also be possible). As we have already seen, this is problematic on the morphosyntactic side.

4 Other IE languages

Part of the problem of the non-Anatolian comparanda is sorting out the exact root shape underlying Hitt. *iškall-*. Vine (1999:566) argues that the verb is cognate with

⁸Cf. Güterbock 1956:107; the translation ‘was torn’ is therefore not justified.

⁹Cf. Groddek 2008:38 with n. 9.

Greek *σκίλλω* ‘flay, tear’ (cf. *Σκίλλη*) < **skol(H)-iē/o-* and that **-oli-* regularly gives *-λλ-* in Greek, dispensing with the need for a labial environment in which Cowgill’s Law would have taken place, and thus the need for reconstructing the root with a labiovelar. That is, the development was **sk^(u)ol(H)-iē/o-* > PGk. **skol-iē/o-* > **skul-iē/o-* > **skulle/o-*. While the Anatolian forms of this root seem to require a root-final laryngeal, the Greek forms point to a root without a laryngeal (cf. *LIV*² 552, *?2. (*s*)*kel-* ‘spalten’). Vine (1999:586–7 n. 51) discusses several possibilities for the derivation of the related verb *σκάλλω* ‘hoe, harrow’ (Hdt.+), e.g. **sk_l-iē/o-* or **sk_l-n-*, which is probably denominal to the root shape in *σκαλίζ, -ιδος* ‘hoe, shovel’ (*IG* II² 1425, 4th century CE (?), Attic), *σκαλμός* ‘thole pin, oarlock’, and *σκάλλη* ‘knife’. The lack of a laryngeal reflex in these forms could be explained as due to the generalization of an *amī-*variant of the root that arose in Saussure’s-Law contexts (“In PIE, a laryngeal was lost adjacent to a tautosyllabic resonant plus */o/,” Byrd 2015:26), e.g. in the **iē/o-*-present mentioned above. Given that **skolH-iē/o-* is also a context for Pinault’s Law (in both the formulation of Pinault 1982:266 and its revision in Byrd 2015:225), the lack of a laryngeal reflex in this form is not too shocking (though more needs to be said about the variant *σκαλ-*).

Besides Anatolian, Lithuanian *skiliù, skìlti* ‘split’ and its *e*-grade variant *skeliù, skèlti* also point to a root ending in a laryngeal. R(*e*) is also found in Old Norse *skilja* ‘divide, separate’ (< **skel(H)-iē/o-*), cf. Villanueva Svensson 2010–1 [2012]:17. Vine (1999:566), Jasanoff (2003:78), and Villanueva Svensson (loc. cit.) all argue that together with Greek *σκίλλω*, these forms can be interpreted as evidence for an old “*molō*-present”: a **b₂e*-conjugation present with R(*o/e*)-ablaut. That is, the Greek verb would preserve the root ablaut of the strong stem, while Lithuanian and Old Norse would preserve the weak stem with R(*e*). However, as we have seen in §1, a “stative” in **-ór* usually implies a **b₂e*-conjugation *aorist* rather than a present, and the root **skelH* is indeed reconstructed with a primary root aorist in *LIV*². Moreover, the apparent *e*-grade **iē/o-*-present reflected in Lith. *skeliù* is treated as a “Neubildung” in *LIV*², while Old Norse *skilja* is analyzed as denominal to Old Norse *skil* ‘divide, division’, which is taken to belong to the root ?2. **(s)kel-* ‘spalten’ (*LIV*² 552).¹⁰ This means that there is insufficient evidence for an ablauting **b₂e*-present, with a question mark concerning the unexpected *o*-grade of Gk. *σκίλλω*. We will return to this form below.

Finally, the Armenian 3sg.mid. aorist *c’elaw* ‘split, tore’ (intr.) could reflect an old (“semi-thematic”) aorist stem **skel(H)-(e)-*, on the basis of which *LIV*² reconstructs a regular athematic root aorist for PIE. However, no such aorist is found in any other daughter language (pace *LIV*², Hitt. *iškall(a)-* should not be traced back to the same stem as the Armenian form, cf. §6), and the phonological and morphological

¹⁰*LIV*² treats **skel(H)-* ‘split’ as an “Erweiterung” of 2. **(s)kel-* (no explanation is offered for the apparent *s*-mobile character of the latter, but not the former), but one could attempt to unify these roots into a single entry by explaining the *amī-*reflexes as due to laryngeal loss via Saussure-Hirt and/or Pinault’s Law (cf. the main text).

peculiarities of Arm. *c’elaw* make it difficult to assess its age.¹¹ This form will be left aside in the following.

To summarize, the comparative evidence we have seen so far points to a root **skel(H)* and possibly an R(∅)-*ic/o*-present. Evidence for R(*o*) outside of Anatolian is limited to Gk. *σκέλλω*. The next section introduces a potential new cognate in Tocharian that has hitherto not been included in the debate.

5 Tocharian

Tocharian A and B both have a class III present from the root *kul^ā* (glossed as ‘nachlassen’, ‘recede’ in Malzahn 2010:602), Toch. A 3sg. *kulatār*, B *k_letār*, *kuletār*. Class III presents are famously media tantum, and the averbo of this root is consistently intransitive. The stems of this class go back to presents of the structure 3sg. *R(∅)-*ó-to* (cf. the examples in Table 2 above). In the case of Toch. A *kulatār*, B *kuletār* we also find a middle subjunctive V paradigm, likewise with R(∅), but this may have been modeled on the class III present and does not necessarily imply an inherited active subjunctive with R(*o*).

While *CEToM* glosses the verbal forms consistently as ‘recede’, the passages seem to require ‘weaken’, ‘fail’, or ‘be diminished’, and the subjects are usually abstract nouns (‘power,’ ‘will,’ ‘virtue’). The following Tocharian B passages exemplify this (translations are from *CEToM* unless otherwise indicated):

(2) THT 278 b2

[*ne*]mcek *nai tremassana aršāklamts kuletār*
 certainly indeed angry.GEN.PL snake.GEN.PL recede.3SG.PRES.MID
maiyyo
 strength.NOM

‘(Who has the thought), “certainly the power of the snakes of anger **fails**”’
 (Peyrot 2013:355).

(3) THT 21 b5

... *pakwāremmpa nauṣ /// (att)s(ai)k maiyyo kulātār*
 bad.COM.PL earlier completely strength.NOM recede.3SG.SUBJ.MID
 =*me*
 =3PL.OBJ

‘With the bad ones first . . . their power **will recede** completely.’

¹¹Notably, the unexpected reflex of the initial **sk*-cluster, whose lack of palatalization clashes with the supposedly generalized **e*-grade of the form. As Daniel Kölligan has pointed out to me (p.c.), the middle inflection need not be old, but may be due to laryngeal vocalization; the age of the *e*-grade is likewise unclear. Cf. Klingenschmitt 1982:83, 278 and Kölligan 2014:174–5.

- (4) THT 78 a1

pāramitne āyorṣṣe mā no kulā =ñ
 virtue.LOC munificent.OBL NOT PART recede.3SG.PRET.ACT =1SG.OBJ
palsko
 mind.NOM

‘Also, my mind would not relent towards the virtue (*pāramitā*) of munificence’.

From Tocharian A we have:

- (5) A 17 b1

pñiṣim tampeyo mā tsraṣṣune kulatär
 virtuous.OBL power.INSTR NOT energy.NOM recede.3SG.PRES.MID
 ‘Through the power of virtue, energy does not weaken’.

- (6) A 230 b7

tampe kälptär kuli(s) tampe omäskem
 power.NOM obtain.3SG.OPT.MID recede.3SG.OPT.ACT power.NOM evil.NOM
klesās(ś)i
klesā.GEN.PL

‘... power will be gained; the evil power of the Klesās will go down’.

The etymology of *kul^ā* is unclear; its root is not cited in *LIV*². Malzahn (2010:603) lists several previous proposals, namely **g^hel(h₁)* or **guel(h₁)* (Jasanoff 1978:39–40; cf. **g^helh₁-* ‘treffen, werfen’, *LIV*² 208 and ?2. **guel-* ‘sich legen’, *LIV*² 192), which is unlikely from a semantic point of view;¹² **k^helh₁* ‘turn’ (Hilmarsson 1991:64–6), which is both semantically and morphologically unlikely (that root is presumably the ancestor of Toch. *käl^ā* ‘lead, bring’, which forms alternating subjunctive V and preterit I paradigms in Tocharian A and B, cf. Malzahn 2010:584–6; see also Adams 2013:256 for a discussion of previous proposals); and **(s)k^(u)el* ‘cut’. The latter proposal is by Lubotsky (1988:92), who argues that PIE labiovelars and palatals became velars after **s*, and that forms like Tocharian *kul^ā* with a labiovelar reflex are therefore in principle compatible with forms without labiovelar reflexes after **s* in *s-mobile* roots.

¹²More precisely, Jasanoff (loc.cit.) equates Toch. A *kulatär*, B *kuletär* with the Lithuanian “essive”/stative *guliu*, *gulėti* ‘lie’ and *guliti* ‘lie down’ (cf. *LIV*² 192 ?2. **guel-*), but no longer connects these to Gk. βλῆτο < **g^hh₁-* (Jasanoff p.c.). However, while Jasanoff (1978 and passim) argues that Balto-Slavic “ē-statives” like *gulėti* < **gul-elh₁-* often functionally replace older root statives or middles, this is only indirect evidence for a stative **gul-ór* or **gulH-ór* underlying both the Tocharian and the Lithuanian forms. Moreover, the meaning of the Tocharian forms suggests an original passive (see main text below) or possibly anticausative meaning of the middle verb, i.e. a dynamic rather than a stative formation, as opposed to Lithuanian stative *gulėti* (though some of the attested Tocharian forms are also compatible with a stative interpretation). In fact, the Tocharian forms are semantically closer to Lith. *guliti* ‘lie down’, with which they cannot be equated formally. This possible etymological connection is therefore not pursued here.

Lubotsky does not discuss Hittite in this context, but as the attentive reader has probably guessed, the next step is to connect Toch. A *kulatār*, B *kuletār* with Hittite *iškallāri*. There are three main problems to be solved: 1) the proposed phonological equation $*(\#)sk : *(\#)k^u$, 2) the semantic mismatch between an intransitive verb in Tocharian and a transitive-agentive verb in Hittite, and 3) the morphological question of the original root ablaut in Hittite. These will be addressed in turn in the next section.

6 Proposal

I propose that both Toch. A *kulatār*, B *kuletār* and Hitt. *iškallāri* ultimately descend from a “stative-intransitive” ending-accented present $*(s)k^{(u)}(H)\text{-}ór$ from an *s*-mobile root $*(s)k^{(u)}el(H)$ ‘cut off/into, slice’. On the Hittite side, this requires an explanation for the lack of a labiovelar reflex. The idea that labiovelar coarticulation is lost after $*s$ goes back at least to Meillet (1894) and was elaborated by Steensland (1973), who shows that the sequence $*-sk^u-$ is completely missing from the reconstructed forms found in Pokorny 1959–69. While Steensland’s work relies on partially outdated reconstructions, the generalization deserves a closer look. In Hittite, which is directly relevant for us, there are no instances of inherited $/\#sk^w/$, and potential medial $-sk^w-$ is clearly secondarily derived (e.g. in *maleškuēšš^{vyzi}* ‘become weak’, deadjectival to *mališku-* ‘weak’) or lacks an etymology (*tašku(i)-* ‘thigh bone’, *wašku(i)-* ‘offense’). A similar situation is found in Tocharian. While initial $\langle kw \rangle$, $\langle ku \rangle$, and $\langle ku \rangle$ as reflexes of $*\#k^u$, $*\#g^u$, $*\#g^{uh}$ are well-represented,¹³ and some medial reflexes are found as well (e.g. Toch. B *walkwe* ‘wolf’ < $*u\#k^u\text{-}$),¹⁴ synchronic sequences of $\langle(\#)skw\rangle$, $\langle(\#)sku\rangle$, $\langle(\#)sk_u\rangle$, and $\langle(\#)suk\rangle$ are only found in Sanskrit, Buddhist Hybrid Sanskrit, and Iranian loanwords and their derivatives (e.g. Tocharian B *sakw*, A *suk* ‘fortune, happiness’ < Skt./Pkt. *sukhá-* ‘fortune’, whence the class XII pres. *skw-aññ-* ‘be fortunate, happy’; Toch. B *pässakw*, A *psuk* ‘garland’ < Iranian $*pusāka-$, etc.) and in synchronically derived sequences of $-sk + u/w-$ (e.g. verbal nouns in $-o/-w$ to neo-roots in $-sk$, like Toch. B *māskw* ‘obstacle’ and *palsko* ‘thought’).¹⁵ Potentially inherited $*sk^{u(l)}$ (< $*s + *g^u$, $*g^{uh}$, $*k^u$), on the other hand, is practically non-existent, and when it does surface, the orthography does not reflect the labial element. A possible example is Tocharian B *skeye*, A *ske* ‘zeal’ (with a backformed, originally denominal root *skāyā* ‘strive’), which according to Adams 2013:773–4 (cf. also Malzahn 2010:956)

¹³Apart from contexts where labiovelar dissimilation took place by regular sound change, the details of which are, however, controversial. Cf. Fellner 2005 and 2006 for examples and discussion of the orthographic variants of labiovelar reflexes in Tocharian.

¹⁴See Fellner and Malzahn forthcoming.

¹⁵I am grateful to Bernhard Koller and Hannes Fellner for helping me navigate the *CEToM* corpus to find the attested sequences and for discussing the orthographic variants with me.

goes back to PIE **sk^hoyo-*.¹⁶ Adams argues that the underlying root is an *s*-mobile variant of the root seen in Gk. *ποιέω* ‘do’, Ved. *cinóti* ‘collects, arranges’, etc. (*LIV*² 378–9, 2. **k^hej-* ‘sammeln, schichten’). Another potential example is the Tocharian A adverb *skam* ‘always, continuously’, which may be etymologically related to **sek^m* ‘follow’ according to Georges-Jean Pinault, who suggests a preform **sk^m-o-mo-*, i.e. a “quasi-participial” **mo-*adjective (Pinault, p.c.).¹⁷ A more thorough study might unearth additional examples, but there is at least some evidence that labiovelars are reflected as velars after **s* in Anatolian and Tocharian,¹⁸ and that *s*-mobile roots may therefore have both a velar and a labiovelar outcome depending on the context.

This means that Toch. A *kulatär*, B *kuletär* and Hitt. *iškallāri* can in principle go back to the same root. However, while the Tocharian meaning ‘recede, weaken’ could have developed from a canonical “middle” meaning ‘be/get cut off (from)’, this is not easy to reconcile with the fact that the Hittite verb has a transitive and agentive sense ‘cut/tear off’ (cf. the passages in §3 above). The Hittite *ā(ri)*-class is of course somewhat famous for many of its members showing precisely *not* the stative semantics expected by the standard “stative” theory of the PIE verbal system. Conspicuous members of this class are *paḥsari* ‘protects’, *ḫattari* ‘slits’, *ḫuettiyari* ‘pulls’, *paṣṣiya(ri)* ‘breaks’, and *tulṣa(ri)* ‘cuts off’, discussed by Oettinger (2007) and Jasanoff (2012) in connection with the enigmatic Hittite *i*-imperatives. Both Oettinger and Jasanoff note that these verbs are semantically and morphologically odd from a synchronic point of view and tend to be replaced with *active hi*-verbs in later texts. While not all these verbs have a secure etymological connection outside of Anatolian, I have argued in Grestenberger 2014 and 2016 that at least some of them are “inherited deponents” that lost their canonical non-active semantics already before Anatolian split off and were therefore not renewed with the synchronically productive non-active (“mediopassive”) endings (that is, a 3sg. in *-tta(ri)*, etc.). The same would then be the case for *iškallāri*, which could go back to a canonical “protomiddle” meaning ‘cut off for oneself’ or ‘cut (away) at’.¹⁹ Tocharian, on the other hand, replaced *all* inherited dentalless endings with **-tor*, and the renewal of **k^(u)(H)-ór* as **k^(u)(H)-(ó)tor* could easily have been used to “update” the semantics of the form as well and bring it more in line with what would synchronically be expected of a non-active form.²⁰ The complex interaction between formal and semantic renewal throughout

¹⁶Alternatively, Toch. B *skeye*, A *ske* could be verbal nouns formed to the inherited averbo of *skāy^h* ‘strive’, since inherited **-ojō-* would probably not have given TB *-eye-* (though the expected outcome is controversial). Either way, the initial cluster lacks a labial reflex.

¹⁷It could be argued that dissimilatory unrounding before [+round] vowels played a role in these cases, but there are several counterexamples to unrounding in that environment, e.g. Toch. A *saku*, B *sekwe* ‘pus’ < **sok^mo-* (Gk. *ὀπός* ‘vegetable juice’, OCS *sokъ* ‘juice, broth’, etc.); Toch. B *enkwē* (A *onk*) ‘human’ < **ḡk-y-o-*. See Pinault 2008:424–5 for discussion.

¹⁸Whether this was already the case in PIE will have to be discussed on a separate occasion.

¹⁹Cf. Jasanoff 2003:145 with n. 2 for a discussion of the protomiddle use of verbs of violent action.

²⁰On the passive use of verbs of violent action (*cut, hit, destroy*...) with non-active morphology in PIE, see Fellner and Grestenberger 2017 and Grestenberger 2018a.

the development of the $*b_2e$ -conjugation into its (active and non-active) successors is discussed by Jasanoff (2003 and subsequent publications), but many individual cases remain to be studied in detail. It is clear, however, that the synchronically productive functions associated with non-active morphology tended to be associated with the appropriate productive non-active morphology or could be renewed as such. The Hittite-Tocharian pair *iškallāri* : Toch. A *kulatār*, B *kuletār* would then be a further example of this type of renewal.²¹

Finally, the question of the root ablaut: as mentioned above, the zero grade attested in the Tocharian forms and required by the reconstruction as a “root stative-intransitive” in the sense of Jasanoff 2003 excludes the possibility of getting the Hittite form from the zero grade of a root with $*b_2$ or $*b_3$. However, a preform with $*b_1$, $*skl̥b_1-ór$, would have resulted in $*skl̥-ór > *skll-ór > /(\dot{i})skallá/$ (cf. Melchert 1994:80),²² in which case neither *iškallāri* nor its formally active replacement *iškallai* would require an o -grade. In fact, there are several reasons to doubt that any of the Hittite forms reflect an o -grade (indirectly or directly): first, because the stem *iškall(a)-* is consistently spelled with the cuneiform signs <kal> or <gal> rather than as <ka-a-al> or <ka-al>, as would be expected for an (old) o -grade;²³ second, because the stative *iškallāri* is older than the formally active *iškallai*, where such an o -grade might be expected; and third, because we do not expect an inherited o -grade in an $*ór$ -stative in the first place.²⁴

While a zero-grade root stative correctly explains the Hittite forms, there are two independent reasons for the *internal* reconstruction of a preform with o -grade as well. The first reason is conceptual: as discussed in §2.2., $R(\emptyset)$ “root stative-intransitives” are analyzed as internally derived from $*b_2e$ -conjugation aorists with $R(o)$ in Jasanoff 2003 and Villanueva Svensson 2007–8 [2010], 2010–1 [2012]. A root stative-intransitive 3sg. $*(s)k^{(u)}b_1-ór$ would therefore imply an older 3sg.

²¹For quasi-parallels cf. the development of the “protomiddle” $*kónk-e$ ‘hangs’ (intr.), formally continued in the synchronically active Hittite 3sg. *kānki* ‘hangs’ (tr.) and opposed to a new “oppositional middle” 3sg. middle *gangattari* ‘hangs’ (intr.) with the synchronically productive non-active endings (Jasanoff 2003:72–4 and this volume) and pairs such as Ved. *bruvé* ‘is spoken’ : *brūté* ‘speaks’, etc.

²²The outcome of $*(C/V)RHV$ sequences in Hittite is notoriously controversial. As Craig Melchert (p.c.) has pointed out to me, if one follows Oettinger 1979:549 in assuming that PA $*VRh_2V > \text{Hitt. } VRRV$ (or more generally, $*VRHV > VRRV$), a root-final laryngeal $*b_2$ would also be possible for this root but would require an accented full grade (similarly Kimball 1999:352, who argues that all prevocalic sequences $*IH$ become geminates, and Kloekhorst 2008:81), though note again the arguments against an inherited PA full grade in this verb and the fact that Greek offers no independent evidence with respect to the color of the laryngeal. I therefore conclude that the formulation of Melchert 1994:80 is still the best bet for prevocalic $*b_1$.

²³I am grateful to Jay Jasanoff for pointing this out to me.

²⁴Craig Melchert (p.c.) suggests that an inherited $*b_2e$ -conjugation aorist $*(s)k^{(u)}álh_1-e$ could have transmitted its o -grade analogically to its internally derived stative present (recall that the Anatolian reflexes of the $*b_2e$ -conjugation have mostly generalized o -grade throughout the paradigm; the aorist would then have been lost in Anatolian, or is simply not transmitted). For reasons of space, this proposal cannot be discussed here in as much detail as it deserves; the most important arguments against assuming an (old) o -grade in Hittite are discussed in the main text.

**h₂e*-conjugation aorist **(s)k^(u)ólh₁-e* and would justify reconstructing an aoristic root, as LIV² 553 does (though for very different reasons).

The second reason is the *o*-grade of Gk. *σκούλλω* ‘flay, tear’, which is unexpected in a **i̯e/o*-present. One might expect this *o*-grade in a denominal verb in which it would have been taken over from the derivational basis, but there is no obvious nominal basis for *σκούλλω* in Greek. Alternatively, one might speculate that this **i̯e/o*-present was deverbal to an inherited **h₂e*-conjugation aorist **(s)k^(u)ólh₁-e* from which it copied the root ablaut grade. However, this depends on whether *σκούλλω* alone can indeed bear the burden of being interpreted as such an archaism.

7 Conclusion

Hittite remains at the center of the debate surrounding the reconstruction of the PIE middle endings and the verbal system in general. In this article, I hope to have provided further arguments against the idea that the PIE “dentalless middle” endings were associated with a separate, semantically distinct (voice) category “stative”. Rather, they represent a particular stage in the development of the PIE non-active (“middle”) endings and its various functions, some of which were compatible with a later development into syntactically active, transitive functions. The Hittite *ā̃(ri)*-class provides crucial evidence for this view. Assuming that labiovelars are reflected as velars after **s* in Anatolian and Tocharian makes it possible to identify Toch. B *kuletār*, A *kulatār* as cognates of Hitt. *iškallāri* and to reconstruct a further dentalless, R(∅) “stative” **(s)k^(u)ólh₁-ór* for Proto-Indo-European. It is moreover possible that the **h₂e*-conjugation aorist implied by this form is indirectly reflected in the R(*o*)-grade of Gk. *σκούλλω*, but this must be left to future work. Similar derivational links will, one hopes, also be unearthed for other verbs of the Hittite *ā̃(ri)*-class, many of which still lack an etymology.

Abbreviations

CEToM = 2011–. *A Comprehensive Edition of Tocharian Manuscripts*. <https://www.univie.ac.at/tocharian>.

HED = Puhvel, Jaan. 1984–. *Hittite Etymological Dictionary*. Berlin: Mouton.

HEG = Tischler, Johann. 1977–2016. *Hethitisches etymologisches Glossar*. Innsbruck: Institut für Sprachwissenschaft der Universität Innsbruck.

IG = 1913–. *Inscriptiones Graecae*. Berlin: de Gruyter.

LIV² = Kümmel, Martin, and Helmut Rix (eds.). 2001. *Lexikon der indogermanischen Verben: Die Wurzeln und ihre Primärstammbildungen*. 2nd ed. Wiesbaden: Reichert.

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