Semantics and Etymology of Hittite *takš-*

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It is an honor and a pleasure to take part in this well-deserved tribute to Alexander Lubotsky. I regret that the topic of this contribution is only tangentially related to Sasha's own research.[1]

The Hittite verb *takš-* was derived by Sturtevant (1930:214 and 1933:81) from PIE **teḱþ-* (sic!) 'make, create' and compared with Skt. *takṣ-* 'make, fashion (especially of wood)'. This etymology was rightly rejected on phonological grounds by Oettinger (1979:219), *LIV*^{2}:619–20, and Kloekhorst (2008:814) in favor of derivation from **tek-s-* 'weave, put together' seen in Lat. *texō* 'weave' and putatively OP *ham- taxša-* *'put together' (attested only in the medio-passive as 'cooperate' or similar–see Kent 1950:186 and *LIV*^{2}:619) and Arm. *tʿekʿem* 'plait, twist' (sic!). Laroche (1963:69–71) proposed rather that Hitt. *takš-* reflects a preform **doḱ-s-* to the root **dek-* 'receive, accept' (via a causative *'cause to receive, accept'), an alternative followed by several scholars. See Tischler 1991:42–3 for further clearly unconvincing proposals and dubious or unproven cognates within Anatolian.

There is a broad consensus regarding the morphology of the verb. The attested Hittite paradigm showing predominantly an allomorph *takkiš-* before endings beginning with a consonant and *takš-* before those with an initial vowel is derivable from a standard root present **ték-s-ti*, **t$_e$k-s-énti* leading to *takkišzi*, *takšanzi*. In a sequence **CeT-s-C-* the change of short **e* to *a* before three consonants may be regular (contra Lipp apud *LIV*^{2}:620, note 2), as is the anaptyxis of posttonic *-i-* (Melchert 1984:108 modifying Oettinger 1979:218–9). With the loss

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of anaptyxis as a synchronic rule, the verb was occasionally influenced from Middle Hittite onward by the type of *g(a)nešš-* 'recognize', whence New Hittite *takkešzi*. The prevocalic strong stem *takš-* (Pret1Sg *takšun*, Pret3Pl *takšer*) for phonologically regular **tekš-* is due to leveling from the rest of the strong forms (see for a similar account with differing details Kloekhorst 2008:814). As per Kloekhorst, occasional New Hittite *takš-* before consonant and *takkešš-* before vowel are analogical, no doubt reflecting efforts to create an invariant stem.

While the verb's morphology is reasonably clear, its semantics most certainly are not. The handbooks present a broad and bewildering palette of alleged meanings. Tischler (1991:40) lists "zusammenfügen, unternehmen (Feldzug); zuteil werden lassen, zuteilen, zufügen, vereinbaren (Frieden, MP dann sich vertragen); mischen (Flüssigkeiten); zücken (Waffen)." Kloekhorst (2008:813) gives 'to devise, to unify, undertake, to mingle'. Nominal derivatives further complicate the picture: they include not only alleged *takšan-* 'joint, center' (as an adverb 'together'), but also *takšatar* 'plain, level ground' and the derived verb *takšatniya-* 'to make level'. Uncertainty about its core meaning is surely the principal reason for the lack of a consensus regarding the etymology of *takš-*, and a new survey of its usage is called for.

One difficulty in determining the meaning(s) of Hitt. *takš-* is that in a number of occurrences either a concrete, physical sense or a more abstract one is compatible with the context. I therefore begin with instances where a concrete meaning seems undeniable. In at least one case, our verb clearly means 'fashion, make, construct':

(1) KBo 22.6+6.2 iii 21–22 (CTH 291; Laws; OH/OS)

eki BÀD-*ni* LUGAL-*aš* KASKAL-*š=a takšuanzi* ^{GIŠ}KIRI$_6$.GEŠTIN-*aš tuḫḫušuanzi* [*ŠA* ^{LÚ}TIBI]RA *natta kuiški arawaš*

'None of the coppersmiths is exempt from fashioning ice, a fortification, and the king's roads (or) from harvesting vineyards.'

One must insist on this interpretation with Hoffner (1997:68&193). *Only* this meaning makes sense for the original Old Hittite, which was wholly misunderstood and wrongly altered by the New Hittite copyist. Note that all three activities expressed by *takšuanzi* require not only cutting (hence coppersmiths), but also *fitting together* (ice was kept in icehouses, É *ŠURĪPI*—see Hoffner 1971—and royal roads were surely paved). There is no basis for the widely presumed 'to undertake (a campaign)'.

In several examples *takš-* refers to blending various materials, with a particular emphasis on unifying them in a *harmonious* fashion:

(2) KUB 33.6(+)7 iii 8–9 (with dupl. 33.5) (CTH 324; Telipinu Myth; OH/NS)

[*kāša*]=*tta* K[I.MIN (BAPPIR DIM$_4$ *kit*)]*ta nu* BAPPIR DIM$_4$=*š*=*a* [*maḫḫa*]*n iš*[*tan*(*zanit takšand*)]*ari nu* ZI=*ŠUNU* [ŠÀ=*ŠUNU* (1-*iš kišari*)]

'Look, here are likewise placed beer bread and malt for you. As the beer bread and malt are united in their soul, so that their soul and innards become one…'

(3) KUB 17.10 ii 23–24 (CTH 324; Telipinu Myth; OH/NS)

DIM$_4$ BAPPIR ZI-*it māḫḫan takšant*[*a(ri) U ŠA* ^{d}*Telipinu*] ZI=*KA ŠA* DUMU.LU.U$_{19}$.LU *uddanāš QATAMMA takšanza ēšdu*

'As malt and beer are united in their soul, so also may your, Telipinu's, soul become united with the words of the mortals.'

(4) KBo 15.37 iv 43–47 (CTH 628; *ḫišuwa*-Festival; pre-NH/NS)

EGIR-*ŠU=ma* GÌR.KÁN KÙ.BABBAR *ANA PANI* DINGIR-*LIM tianzi* n=ašta ^{DUG}*ḫaniššān*

GEŠTIN *anda laḫūwanzi namma=at' witenit takšanzi*

'Afterwards they place a silver vessel before the deity and pour in a pitcher of wine. Then they

blend it with water.'

The Telipinu passages show that the sense is not merely 'mix' or 'mingle' (for which Hittite uses

(anda) immiya-), but 'blend' together so as to unite in a harmonious and seamless fashion.

In one instance a variant in a duplicate shows that *takš-* means 'to make smooth, level', with

reference to floors:

(5) KBo 12.114 Vo 4 (?/NS)

[ ]KI.ḪI.A-*uš takšanzi* 'They make smooth the floors.'

The duplicate KUB 9.15 iii 24 has rather [*daganz*]*ipuš tattarānzi* 'they make smooth the floors'.

See Tischler 1993:273, who plausibily argues for a basic meaning of 'fit together' for *takšanzi*

(that is, pieces, tiles of a floor). It is important to note in contrast to what follows that none of

these examples referring to fitting together, blending, or constructing show the use of a local

particle with *takš-*.

We turn now to the much larger number of examples that seem to permit not only 'fashion,

devise' (easily an extension of 'fit together'), but also 'do (to)/inflict (upon)' or rather 'decree,

ordain'. The most widely attested collocation for *takš-* is (Dative) *idālu/āššu takš-* 'to do

evil/good to':

(6) KBo 3.1 Ro 7–8 (CTH 1; Anitta; OH/OS)

U DUMU.MEŠ ^{URU}*Nēš[a id]ālu natta kuedanikki takkišta*

'But he fashioned/decreed evil for (*or* inflicted evil on) none of the sons of Nesha.'

Neu (1974:11) renders 'von den Einwohnern Nešas aber fügte er keinem Böses zu.'[2]

(7) KUB 19.28 iv 3–4 (CTH 145; Protocol, probably of Suppiluliuma II; NH)

[…]x *ANA* NUMUN ^m*Šuppiluliu[ma … šekkante]t[?]* ZI-*it āššu takkeški*

'Fashion/decree good with a [know]ing soul (i.e., intentionally) for the seed of Suppiluliuma!'[3]

We also find the following variation on the same theme:

(8) KBo 3.28 ii 15 (CTH 9; Palace Chronicle Fragment; OH/NS)

idalu=ma=an lē iyaši ḫenkan=še lē takkišši

'But you shall not treat him (a sinful prince) badly. You shall not fashion/decree death for him.'

For pragmatic reasons it is the negative version *idālu takš-* that is by far the most common

expression, being found in a variety of genres in compositions dating from Old, Middle, and

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[2] We likely find the same expression ibid. Vo 45, also without local particle, and probably

likewise in KUB 36.106 Vo 4 (OH~MH/OS~MS).

[3] We surely find the positive variant also in the protocol KUB 26.22 ii 8–9 (NH?): 'As you

fashion/decree [good] for your sons, fashion/decree [good] for those gods.'

New Hittite.[4] The ambiguity of the sense of *takš*- in this collocation is reflected in the varying translations: Beckman (1996:57) chooses 'undertakes an evil word' for KBo 5.9 ii 37, but (1996:157) 'engineer evil' for KBo 3.3 ii 23 etc. Oettinger (1976:11 and passim) consistently opts for 'Böses zufügt' for KBo 6.34 ii 25 etc., while Hoffmann (1984:35&37) chooses 'unternimmt' for KBo 3.1 ii 54 etc.

Some clarity is brought to the issue by two further examples from rituals where 'evil' or 'harm' is merely subtextual:

(9) KBo 15.10 i 25–26 (CTH 443; Ritual placating Sun-god "of blood" & Storm-god; pre-NH/MS)

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[4] For *idālu takš*- see also KBo 3.1 ii 54.56.60 (second + *=ššan*) and KUB 11.6 ii 12 (+ *=ššan*) (Telipinu Edict), KUB 36.127 Voˈ 13 (CTH 41; Šunaššura Treaty; MH/MS), KUB 23.77 Ro 22.24 and 23.77a Vo 12 (last with *-ššan*) (CTH 138.1; Kaška Treaty; MH/MS), KUB 26.41 Ro 15 (CTH 133; Ismerika Treaty; MH/NS); KBo 5.3 iv 43 (CTH 42; Hukkana Treaty; MH/NS); KBo 5.9 ii 37 (CTH 62; Treaty with Tuppi-Teššub; NH) (*idālu uttar* + *=ššan*), KBo 3.3 ii 23.27.32 & KUB 19.41+31.12 ii 27 (+ *=kan*) (CTH 63; Perge Decree; NH), KUB 14.3 ii 64 (+ *=kan*), KUB 21.8 ii 3.9 (CTH 90.1; Decree about Nerik; NH), KUB 14.3 ii 63 (CTH 181; Tawagalawa Letter; NH), KBo 6.34 ii 25.36.48.III 6 & KUB 7.59 ii 12.iii 8 (all with *=ššan* or *=kan*) (CTH 427; Military Oath; ?/NS); KUB 36.114:11 (protocol; pre-NH/NS), KBo 16.56:11 (CTH 428; protocol; ?/NS); KBo 38.234:5 (CTH 470; Ritual Fragment; ?/NS); KBo 13.241 Vo 18.21 (+ *=kan*) (CTH 767; Ritual Fragments with Luvianisms), KUB 25.37 iv 24 (+ *=ššan*) (CTH 771; Lallupiya Ritual; ?/NS).

nu=ššan ANA ŠEŠ=*ŠU* [EME.ḪI].A *takkišket*

'She (Ziplantawiya) has fashioned/devised (evil) tongues for (*or* inflicted on) her brother.'

(10) ibid. ii 20–21 (likewise ibid. iii 16–17 and 22 in an incomplete context)

nu=ššan kuit ᶠ*Zi ANA BELI [tak]kišket n=at=šan* EGIR-*pa apēdani takšan ēšdu*

'And may that which Ziplantawiya inflicted on our lord be inflicted back on her.'

The contexts of most occurrences would permit 'fashion, devise', but also 'decree, ordain', or 'allot' (see Tischler's 'zuteil werden lassen, zuteilen'), as well as 'do to, inflict on'. The widespread though inconsistent use of local particles and the last example argue for the last meaning, more generally 'apply to, bring to bear on'. It is hard to totally exclude 'ordain, decree', but the notion 'be decreed/ordained back for' seems odd, and the motivation for local particles with 'decree, ordain' is weak. Certainly unnecessary is 'undertake'/'unternehmen'.

On the basis of examples like the following, a sense 'to brandish' has also been suggested:

(11) KBo 3.1 ii 34–35 (CTH 19; Telipinu Edict; OH/NS)

kitpadalaz ᵁᴿᵁ*Ḫattuši ḫaššannaš* DUMU-*an idalu lē iyazi nu=šši=ššan* GÍR-*an takkešzi*

'Henceforth in Hattusha let no one treat a son of the family badly or fashion/devise (*or* brandish) a dagger for him /inflict a dagger on him.'[5]

Hoffmann (1984:31) translates '…ein Dolch zücken.' However, the following example speaks against a sense 'brandish' or 'draw' (a weapon):

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[5] Likewise KUB 36.113: 7 (CTH 271; Protocol; pre-NH/NS), also with =*ššan*.

(12) KUB 59.65 ii 9 (CTH 820; OH/NS)

[*ANA* NAMᵗ]RA.MEŠ ᴳᴵˢŠUKUR ᴳᴵˢPAN ḪUL-lu UḪ₇-*tar takkišzi*

'[…] fashions/devises a spear, bow, or evil witchcraft [for the depor]teesᵗ]/inflicts a spear, bow,

or evil witchcraft [on the depor]teesᵗ.'

It is hard to see how one would brandish or draw 'evil witchcraft'. The local particle in (11)

points again to 'inflict on, apply to, bring to bear on'.

 Two further examples without a local particle do suggest a possible meaning 'decree,

ordain':

(13) KBo 3.1 ii 13–15 (CTH 19; Telipinu Edict; OH/NS)

5 ŠEŠ.MEŠ=*ŠU* nu=*šmaš* É.MEŠ *taggašta pāndu=wa=z ašandu nu=wa=[z]a azzikkandu*

akkuškandu idālu=ma=šmaš=kan lē ku[itki] taggaši

'As for his five brothers, he built/decreed houses for (*or* allotted houses to) them (saying): "Let

them proceed to settle (there). Let them eat and drink, and you shall not inflict evil on them."'

(14) KUB 36.108 Ro 1–3 (CTH 25; Zidanza/Pilliya Treaty; OH/OS)

ᵈUTU-*ŠI* LUGAL.GAL ᵐ*Zidanza* LUGAL KUR ᵁᴿᵁḪa[*tti U* ᵐ*Pilliya]* LUGAL KUR

ᵁᴿᵁ*Kizzuwatna takšul iē[r …] kiššan takšer* 'His Majesty the Great King Zidanza, King of Hatti,

and [Pilliya], King of Kizzuwatna, made a treaty/agreement. […] They agreed/decreed as

follows.'

Hoffmann (1984:29) quite reasonably renders (13) as: 'teilte er Häuser zu…Böses…zufügen'.

However, given the evidence of example (1) for 'fashion, make', one may also interpret (13) as

'built houses'. Obviously, Telipinu did not personally build houses for his brothers, but he certainly may have had them built. The sense of *takšul-* 'agreement, (peace) treaty' (NB not 'decree') suggests an absolute use of *takš-* in (14): 'joined together', hence 'agreed'. Once again, then, a meaning 'ordain, decree' certainly cannot be excluded, but no evidence strictly requires it.

We turn finally to the use of *takšan*. This word is most frequently attested as an adverb 'jointly, together' with various verbal predicates, as in (15):

(15) KBo 6.2 iii 7 (CTH 291; Laws; OH/OS)

[*t*]*akku* LÚ ^{GIŠ}TUKUL *U* LÚ.ḪA.LA=*ŠU takšan ašanzi*

'If a TUKUL-man and his partner are/dwell together…'

See further *takšan* plus: *aniya-* 'treat (ritually)' (KUB 32.123 ii 34), *(arḫa) ariya-* '(continue to) inquire about by oracle' (KBo 16.63 Ro 15), *āššan (ēš-)* 'belong to' (KBo 4.10 Ro 26), *ēpp-* 'seize; hold' (KBo 20.67 iii 30), *ḫandant-* 'lined up' (IBoT 1.36 ii 35), *ḫarnink-* 'destroy' (KBo 5.3 ii 8), *anda immiya-* 'mix' (KUB 9.6 i 6), *iya-* 'walk' (IBoT 1.36 ii 45), *gangatāi-* 'treat with the g.-plant' (KUB 29.7 Ro 9 etc.), *ki-* 'lie, be laid' (KBo 13.13 Vo 8), *kūrur ēš-* 'be hostile' (KBo 19.70:28), *takšulā(i)-* 'make peace' (KBo 22.34(+)19.72), *tarwiške-* 'dance' (KUB 25.37 ii 18), *anda tittanu-* 'bring together' (KBo 2.3 i 3.iv 16), *tiya-* 'step' (KBo 3.3 iv 8), *katta uwa-* 'come down' (KBo 13.58 ii 25), *waḫnu-* 'turn' (KUB 45.20 ii 14-25), *wešiya-* 'graze' (KUB 26.19 ii 18.33), *zaḫḫiya-* 'fight' (KBo 5.4 Vo 12), and absolutely with recipients 'for X and Y together' (KUB 15.31 i 5).

With the verb *šarra-* 'to divide' the adverb *takšan* means 'equally, (in) half, in the middle':

(16) KBo 6.3 ii 19 (CTH 291; Laws; OH/NS)

nu=za É-*er takšan šarranzi*

'They (the separating marriage couple) shall divide the house equally.'

(17) KUB 25.3 iii 22 (CTH 634; Grand Festival of Arinna; OH/NS) (and often)

TU$_7$.ḪI.A *takšan šarrattari* 'The stews/soups are divided equally.'

From this use with the verb is derived the adnominal use with the noun *šarra-* 'share':

(18) KUB 21.17 ii 1–3 (CTH 86; Charges against Arma-Tarhunta; NH)

[*n=a*]*t=za takša*[*n*] *šarran«za» daḫḫun takšan šarran=ma ANA* ^m.d^SIN.^d^U EGIR-*pa peḫḫun*

'I took a half share of it for myself, but I gave a half share back to Arma-Tarhunta.'

See further on *takšan šarra-* 'half part, half' *CHD* Š: 229–30. Note also *takšan šār[iyaš]* 'a half file' (IBoT 1.36 iv 8), as per Güterbock and van den Hout (1991:32&58). Finally, since 'equally' means 'in the middle', we also find the following temporal use:

(19) KUB 1.13 i 46 and *passim* (CTH 284; Kikkuli-Text; MH/NS)

maḫḫan UD-*az takšan tiyēzi* 'When it becomes midday…' ('the day steps to the middle')

The adverb *takšan* 'jointly, together' < may be easily derived from the neuter nominative-accusative singular of the participle 'joined' to *takš-* 'join, fit together'. The sense 'equally, in half, in the middle' is due to the pragmatics of the use with *šarra-* 'divide', where a joint dividing means an equal one, whence also the extended use as 'in the middle' spatially (KBo

14.20 ii 19 *takšan ištarna ped[i]* 'in the center') and temporally. There is no compelling

evidence for an *n*-stem noun 'middle' or 'joint, seam' ("Fuge"), *pace* Laroche (1963:65).

We may conclude from our survey that all attested uses of Hitt. *takš-* are derivable from a

core meaning 'to *fit* together, unite' (frequently with the nuance of harmoniously bringing

together). From this basic meaning are derived: (1) 'to fashion/make' (ice, fortifications, roads,

houses); (2) 'to make smooth/even' (floors), whence by an extension from man-made even

surfaces to natural surfaces also *takšatar* 'plain' and derivatives;[6] (3) 'to unite, blend'

(ingredients and by extension minds and wills, hence 'to make an agreement/peace', whence

takšul- 'peace'); (4) with local particles 'to bring to bear on, apply to', pragmatically usually in a

negative sense 'to inflict on'; (5) via the neuter singular of the participle 'joined' an adverb

'jointly, together', which with *šarra-* 'to divide' leads to 'equally, in half, in the middle',

extended to space and time. A meaning 'to ordain, decree' or 'allot' certainly is possible, but is

not strictly required.

Compare in general for this range of meanings from a base 'to fit together' German *fügen*

'fit together, join, unite' (also 'ordain, will'), *sich fügen* 'accommodate oneself to', and *zufügen*

'do something to someone, inflict' (where the prefix *zu-* fills the same function as the local

particles in the similar use of Hittite *takš-*). Reviving and improving upon an idea of Van

Windekens, Michael Weiss has recently persuasively argued (2015:190–4) for another PIE root

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[6] *If* the noun /ta(s)sak^{w}arr(i)-/ 'earth; territory' appearing in hieroglyphic Luwian as (TERRA)*ta-*

sà/a-REL+*ra/i-* represents a compound of a **tasa-* < (virtual) **tókso-* 'leveling; plain' plus

*k^{w}arr(i)- 'ground, territory' (= Hitt. ^A.ŠÀ*kuera-* 'field'), then the sense 'to make level' is shared

at least with Luwian, but this is hardly the only possible analysis of the Luwian word.

*(h_x)reith_2- with the sense 'join, blend, unite' reflected in Tocharian AB *ritwatär/rittetär* 'be attached to' and Proto-Iranian *raiθ- 'join, mix, combine' with reflexes in Avestan and Middle Iranian.

Given derivatives referring to bodily joints (Latin *artus* 'joint; limb' etc.), it is likely that PIE *(h_1)ar- was fundamentally intransitive and referred to one thing fitting *into* another. Just how the original senses of *(h_x)reith_2- and *tek- differed is probably not recoverable. Hittite offers no support for supposing an exclusive PIE meaning 'to weave, braid' for *tek- (contra *LIV²*:619). Nothing excludes that this sense was among the range of uses of the root, but Arm. *tᶜekᶜem* cannot be used to support this. As per Olsen (forthcoming), both the earliest textual evidence and the standard dictionaries point unequivocally to a meaning 'forge, hammer into shape, whet' in the context of metallurgy, along with a metaphorical use 'educate'. In modern use the sense is 'bend, incline, bow, turn': e.g., Baghdasarian and Zorc (1995:329) list an adjective *tᶜekᶜ* 'oblique; declined (of a word)' and verbs *tᶜekᶜel* 'bend, curve (tr.)' and *tᶜekᶜvel* 'bow (down), turn', while Asmangulian and Hovhannisian (1984:89) give *tᶜekᶜ(v)el* as 'bend' and likewise (1984:636) *tᶜekᶜ* as 'oblique'. There is no trace of its being used in either the older or modern language in the context of textiles or weaving. Whatever the source of this Armenian root, its real attested usage cannot be plausibly derived from 'fit together'.

There are also alternative derivations for OP *ham-taxša-* (see *LIV²*: 620, note 3 and the entry for *tag-). Thus, as Olsen (forthcoming) suggests, there is no compelling evidence for a distinct root *tek- with a velar as the basis of Lat. *texō* and Hitt. *takš-, and we may operate with a single root *tek̂- 'fit together, unite', whence 'produce' (Grk. τίκτω 'beget, produce' and τέκνον 'child'), also the base of *tek̂-s- 'fit together, unite' seen in Lat. *texō* and Hitt. *takš-* and an old reduplicated form *te-tk̂- 'to build, fashion, make' with special reference to carpentry continued

in Skt. *takṣ-* 'idem', etc. (see *LIV*[2]: 638). Neither Hittite nor Latin provides any basis for taking **teḱ-s-* as a desiderative (contra *LIV*[2]:619–20). Whether we are dealing with a root enlargement or an *s*-present is part of a very large and complex question that cannot be addressed here. I also forgo any attempt to pursue the very interesting but complex question of the relative chronology and dialectal distribution of the various specialized meanings. I believe that the attested usage of the Hittite verb does assure its derivation from the same base as Latin *texō* versus all alternative accounts.

Abbreviations

CHD = Güterbock, Hans G., Harry A. Hoffner, Jr., and Theo P. J. van den Hout (eds,)*. The Hittite Dictionary of the Oriental Institute of the University of Chicago. 1980–.* Chicago: Oriental Institute of the University of Chicago.

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

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    Tocharian and Indo-European Studies 16:181–98.