TOCHARIAN TEXTS IN CONTEXT

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Preface

When at the end of the 19th century the ancient Silk Road began to open again, it initiated the rediscovery of forgotten civilizations for the scholarly world. Among the manuscripts that were unearthed in Central Asia, the ones written in the two Tocharian languages led to the foundation of the new field of Tocharian studies and provided linguistics with a new branch of Indo-European. In the same way that the ancient Silk Road cultures were internationally orientated, mutually cooperative, and multilingual, Silk Road Studies and Tocharian Studies have to be interdisciplinary and collaborative.

In order to make Tocharian texts more accessible to the scholarly community and to promote interdisciplinary research, the University of Vienna has been hosting an online edition project of Tocharian manuscripts, which is funded by the Austrian Science Fund (Y 492-G20), since 2011. From June 26 to 28, 2013, the same institutions generously sponsored the International Conference on Tocharian Manuscripts and Silk Road Culture: Tocharian Texts in Context, and they also made the publication of the present volume possible.

This volume collects twenty three conference papers ranging from Tocharian philology and linguistics to studies on Sanskrit, Uyghur, Middle Iranian, historical and archeological research on the region where Tocharian was spoken, and the history of Silk Road Studies and thus exemplifies the wide range of approaches in the field. In view of the diverse disciplines and scholarly traditions represented in the collection, we have not imposed a standardized model of transliteration or style on the papers.

It was in a spirit of international cooperation and mutual understanding, vivid in first millennium Turkestan societies, that Tocharian texts were written down at all, and it was due to the re-establishment of ancient ties that Tocharian texts were rediscovered; so we hope that connecting scholars and ideas in the present volume will lead to a better understanding of the lost Silk Road cultures.

Vienna, June 2015   The editors

Jay H. Jasanoff

The Tocharian B accent

Although prosodic features are not directly marked in either Tocharian language, the position of the Tocharian B stress accent can be inferred from the behavior of the central vowels /a/ and /ə/. These, as is well known, have the relatively low allophones [a] <ā> and [ʌ] <a> under the accent and the relatively high allophones [ʌ] <a> and [ɨ] <ä> when unaccented. Alternations of the type *lákle* (< *lắ-) 'sorrow': pl. *läklénta*, *ắke* 'end' : pl. *akénta* (< **āk-´*), etc. are the foundation of Krause and Thomas' "basic rule" of Toch. B accentuation: "In den meisten zweisilbigen Wörtern ruht der Akzent auf der ersten, in drei- (und teilweise vier-)silbigen auf der zweiten Silbe" (Krause and Thomas 1960: 43). Many exceptions have been noted to this rule, some of them easily explained. The numerous disyllabic Toch. B forms with second-syllable accent, for example (e.g., *akálk* 'wish', *ñäktéṃts* 'gods (gen. pl.)', *märsáu* 'forgotten'), are underlyingly trisyllabic, with a final schwa that optionally appears as "mobile *o*" in poetic texts (cf. *akálko* beside *akálk*, gen. pl. *-éṃtso* beside *-éṃts*, ptcp. *-áwo* beside *-áu*). But there are also more serious counterexamples. In some cases a trisyllabic or longer word is accented on its first syllable. Three classes of such forms can be distinguished:

1) class I and V subjunctives (e.g., 3 sg. *prékäṃ-ne* 'will ask' (+ 3 sg. clitic),[1] 2 sg. *lắmat(ä)* 'you will sit', etc.);
2) causative present/subjunctives (e.g., 1 sg. *śársäskau* (< *śắ-) 'I proclaim', 3 sg. opt. *śársäṣṣi*), and preterites (2 sg. *śắrsasta-ne*); and
3) other forms, which, according to Malzahn (2010: 6), "have in common that the vowel of the initial syllable is a full vowel such as *ā* or *æ > TB *e* and [. . .] the vowel of the following, second, syllable is, or was, *(*)ä*" (e.g., ptcp. *eṅku*, pl. *eṅkoṣ* 'seized' < *ǽnkəwə, **-wæṣə*). Malzahn calls this the "*pātär*-rule."

There is no consensus regarding the historical interpretation of these initially-accented forms. Two possible explanations have been discussed in the literature. One, the less popular, is that the initial accent goes directly back to Proto-Indo-European. Thus, Eyþórsson (1993: 63ff.) suggests that the accentuation of the class I and V subjunctives is simply a continuation of the accented *o*-grade of the active singular of the PIE source paradigm. This idea is hard to square with what else is known about the history of the Tocharian accent (see below) and is too unspecific to be evaluated in detail.[2] The other,

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1   The addition of a pronominal clitic to a disyllabic verb form produces a trisyllabic phonological word which may in principle be accented on the first or second syllable. Contrast subj. I *prékäṃ-ne* with pres. II *aśáṃ-me* (< *-ắ*-) 'leads' (+ 3 pl. clitic). Clitics will not be glossed in what follows.
2   Cf. Malzahn (2010: 300ff.). Eyþórsson deserves credit, however, for having recognized, long before the compendious collections of Peyrot (2013) and Malzahn (2010; henceforth

more usual approach, espoused, e.g., by Winter (1994: 306f.), Rasmussen (2002: 379), Kim (2007: 188ff.), and Malzahn (p. 310ff.), holds that the subjunctives and causatives with initial accent were originally reduplicated (*prékäṃ* < **päprékäṃ*, etc.), and hence in fact regular under the basic rule. This claim is likewise questionable. The basic problem is that there is no reason to believe that the relevant categories were ever in fact reduplicated. As I have argued elsewhere (Jasanoff 2003: 161ff., ch. 7 *passim*; 2012b: 108ff.), the class I and V subjunctives, which have more or less reflexively been said to go back to reduplicated perfects by virtue of their *o*-grade, are better taken from unreduplicated *h₂e*-conjugation aorists. There is likewise no basis for assuming reduplication in the causative presents and subjunctives in -*sk*- (*śarsäskau*, etc.), which are unlikely to represent the same formation as the exclusively Greek present type διδάσκω 'I teach'. *Pace* Kim (2009: 30ff.) and earlier writers, it is not attractive to identify the causative preterite type *śārsa*, probably an unreduplicated Narten formation (cf. *lyāka* 'saw' ≅ Lat. *lēgī* 'I gathered'), with the reduplicated Toch. A preterite type *śaśärs*, a reflex of the PIE reduplicated aorist.[3] An argument against reduplication-based explanations in general is the fact that if any of the subjunctives or causatives in question actually *had* been reduplicated, the vowel of the reduplication syllable would almost certainly have been remade, as in all productive reduplicated categories in Tocharian, to Toch. B -*e*- (-*a*- before low vowels) < PToch. *-*æ*- < post-PIE *-*o*-.[4]

The "reduplication theory" is likewise unable to explain the third group of forms with irregular initial accent, those covered by Malzahn's "*pātär*-rule." The effect of the rule can be seen in the past participles of *yām*- 'do' and *lä(n)t*- 'go out':

nom. sg. masc.	*yā́mu*	<	**yáməwə*	vs.	*ltú*	<	**lətə́wə*	(< *-*uwus*)
nom. pl. masc.	*yā́moṣ*	<	**yáməwæṣə*	vs.	*ltúweṣ*	<	**lətə́wæṣə*	(< *-*uwoses*)
nom. pl. fem.	*yā́m(u)wa*	<	**yáməwa*	vs.	*ltúwa*	<	**lətə́wa*	(< *-*uwōs*)[5]

Neither *yāmu* nor *ltu* is formed according to any synchronically productive process, and it would be hard to make a case that either was ever reduplicated.[6] Yet *yāmu*, a form of

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[3]   "Malzahn"), the association of fixed initial accent with the full-vowel forms, and "normal" accentuation with the forms containing a high vowel.

[3]   On Narten preterites in Tocharian, cf. Jasanoff (2012a *passim*). The idea that forms like *śārsa* were originally reduplicated dates from a time when -*ā*- was wrongly thought to be a long vowel comparable to the *-*ē₂*- of formerly reduplicated preterites in North and West Germanic (cf. Go. *haihait* 'called' = OIcel. *hét*, OHG *hiaz*, etc.). Malzahn (p. 184–187) gives a full summary of the literature.

[4]   Cf. Jasanoff (2012b: 118); in the same vein Kümmel (2004: 158). It is notable that the reduplication syllable retained its phonological integrity even in cases like *sä̃suwa* 'sons' and subj. *tättā*- 'put' (: Ved. *dádhāti*, etc.), where the reduplication vowel escaped remodeling to *-*æ*-.

[5]   Like all adjectival feminine plurals in Toch. B, the feminine plural of the past participle goes back to a neuter form, in this case an amphikinetic *s*-stem collective in *-*ōs* (cf. OAv. *vacå* 'words').

[6]   Malzahn is unnecessarily indulgent to this possibility, in my view, when she says (p. 237) that *yāmu* may reflect a PToch. *yäyam- "with irregularly preserved reduplication." The

the same type as Malzahn's *eṅku* (cf. above), has initial accent, while *ltu*, with the root vowel *-ə-, has the accent in "normal" position. If the possibility of reduplication is excluded, there are three ways this difference might be explained: 1) by projecting it back to some very early stage of pre-Tocharian, in effect to PIE itself; 2) by positing an earlier stage where both had second-syllable accent (*yamə́wə, *lətə́wə), with subsequent retraction in *yáməwə; and 3) by positing an earlier stage where both had initial accent (*yáməwə, *látəwə), with subsequent advancement in *lətə́wə. The first option is the least attractive. No one has ever successfully identified a case in which the difference between a regular and "irregular" accent in Toch. B could be attributed to a difference in the position of the accent in PIE.[7] The PIE accent does so little "work" in Tocharian that it is inevitably ad hoc and unconvincing to invoke it in any particular case.

The two other choices – uniform second-syllable accent with retraction in *yáməwə, and uniform initial accent with advancement in *lətə́wə – account equally well for the descriptive situation, but presuppose quite different historical developments. The scenario starting from *yamə́wə implies that the basic second-syllable rule for trisyllabic words was established at the outset and that forms like *yáməwə/yāmu later disturbed it by retraction. The scenario starting from *látəwə implies that Tocharian trisyllabic words originally had initial accent and that the "normal" pattern in trisyllables arose through the advancement of the accent to the second syllable *except* in forms like *yāmu*. From a typological point of view, the advancement scenario is far preferable. Systems of fixed initial stress, as in Hungarian, Archaic Latin, and West Slavic, are among the commonest in the world; it would be entirely unremarkable if pre-Tocharian, on its way to becoming Toch. B, had passed through an initial-stress phase before undergoing a rightward shift in words of the type *látəwə > *lətə́wə. Other things being equal, the alternative *yamə́wə-based scenario, entailing a direct development from PIE to a typologically unusual second-syllable system, has much less to recommend it.

Against this background, let us now consider the feasibility of two ordered pre-Toch. B sound changes:

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phonological treatment of the sequence PToch. *yäya- appears in the historically reduplicated present Toch. B 3 sg. *iyaṃ* 'travels', as if < *ye-y(e)h₂- or *yi-y(e)h₂-. There is no evidence that intervocalic *-y- was lost in Tocharian at all; the example most frequently cited, the development of the putative "essive" suffix *-h₁ye/o- to *-æ- (or some similar vowel) via *-aye/o- in the presents of class III (type B *wiketär*, A *wikatär* 'disappears'), is no better than the case for reconstructing such a suffix in the first place.

7   Or, indeed, a case where *any* phonological development in Tocharian was conditioned by place of the PIE accent. Ringe (1987: 258–261), in an elaboration of Marggraf's pioneering study (1970), attributes the difference between B *ṣpane* 'sleep' < *ṣəpə́næ < *swépno- (with epenthesis) and *tapre* 'high' < *tápræ < *dhubró- (without epenthesis) to the position of the accent. But the actual rules for epenthesis in the two Tocharian languages are too opaque for such a claim to be convincing.

1) replacement of the PIE accentual system by a system of initial stress;
2) advancement of the stress accent one syllable rightwards in words of three or more syllables, except in sequences of the form *-*ÁC₀ə*- (i.e., sequences in which the first syllable contained a "full" (= non-high) vowel and the second contained a schwa or schwa-antecedent (*i, *u, *e, *R̥)).

The condition in 2) is the diachronic counterpart of the *pātär*-rule; we will call it the "*yāmu* condition," or, more informally, the "*yāmu*-rule." Some regular derivations under rules 1) and 2) would have been the following:

stage I	stage II	Toch. B	
*lə́klæ	*lə́klæ	lákle	(disyllable, normal non-advancement)
*lə́klænta	*ləklǽnta	läklénta	(trisyllable, normal advancement)
*lə́təwə	*lətə́wə	ltú	(trisyllable, normal advancement)
*yáməwə	*yáməwə	yă̆mu	(trisyllable, advancement barred by *yāmu*-rule)

The failure of the accent to advance from syllables containing a non-high (= maximally sonorous) vowel to syllables containing a high reduced (= minimally sonorous) vowel would have been a phonetically natural exception to the otherwise general shift – a textbook illustration of the tendency known in the phonological literature as the Weight-to-Stress Principle.[8]

It is a surprising and interesting fact that rules 1) and 2), which were invented to account for the phonologically conditioned difference between *yāmu* and *ltu*, also shed light on the far more numerous cases where the synchronic conditioning of initial stress is morphological. The survey that follows will begin with the class where the picture is in some ways clearest, the subjunctives of class I.

The majority of class I ("athematic") subjunctives are characterized, or were formerly characterized, by *æ : *ə ablaut and a stem vowel -*ä*- (i.e., *-ə-) of anaptyctic origin. In the most coherent subgroup of these, the *-æ- of the strong forms is an etymological *o*-grade; in a few cases it seems to go back to *-ē̆-. Issues of etymology aside, the retention of the accent on the root in the strong forms is phonologically regular under the *yāmu*-rule (cf. 3 sg. *prékäṃ-ne*, *tékäṃ-me* 'will touch', *yópäṃ-ne* 'will enter', etc.). The weak forms, most abundantly represented by the second gerundive, second verbal abstract, and other nominal forms, present a more mixed picture. Here too, for the most part, initial accent is the rule: cf. 3 pl. *párkän-me*, abstr. II *tákälñe*, 2 sg. opt. *yápit(ä)*, and the other forms listed by Malzahn (p. 279). But there are interesting exceptions, such as abstr. II *tsäkálñe* (: *tsäk-* 'burn'), *nmályñe* (MQ) beside *námalñe* (: *näm-* 'bend'), *tsärkálñe* beside *tsärśálñe* (: *tsärk-* 'torture'), and 1 pl. *nkém* (: *näk-* 'destroy'). The last three of these show second-syllable accent in the process of being replaced, either by retraction (*námalñe*) or by transfer to class II (*tsärśálñe*, *nkém*),

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where second-syllable accent was normal. An obvious hypothesis would be that fixed initial accent in class I was originally proper only to the forms with a full vowel, where it was regular under the *yāmu*-rule.[9]

Closely related to these forms are the subjunctives of class V, with the Proto-Tocharian stem vowel *-*a*-, ultimately reflecting a vocalized root-final laryngeal. As in class I, there is typically historical *æ : *ə ablaut, although this was not present in some cases and was eliminated by leveling in others. A characteristic feature of class V is the phonological lowering of the root vowel *-*æ*- to Toch. B -*ā*- by *a*-umlaut.[10] The lowered vowel is always accented, both in ablauting and non-ablauting roots; cf. 2 sg. *lā́mat(ä)* (: *läm*- 'sit'); *kā́tkat(ä)* (: *kätk*- 'cross'); *kā́rpat(ä)*, abstr. II *kā́rpalñe* (: *kārp*- 'descend'); *tā́kat(ä)*, 2 pl. *tā́kacer* (: *tāk*- 'be'). The *ə*-grade forms in ablauting roots are usually accented as well; cf. abstr. II *lámalñe*, inf. *lámatsi*; further inf. *mársatsi* (: *märs*- 'forget'), *stámatsi* (: *stäm*- 'stand'), etc. Here, however, there are exceptions: beside *kā́tkat(ä)* we find 3 sg. mid. *kätkā́tär-me*, and beside 2 sg. *kā́skat(ä)* (: *käsk*- 'scatter') we find abstr. II *käskā́lläññe*. A regular sub-pattern is observable in the medium tantum class V subjunctives associated with deponent class III presents; these have *ə*-grade of the root and non-initial accent (cf. *triwā́tär* (: *triw*- 'mingle'), *wikā́tär* (: *wik*- 'vanish'), *lipā́tär* (: *lip*- 'be left over'), opt. *tsälpóytär* (: *tsälp*- 'be redeemed'), etc.).[11] Taken

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[9]   Malzahn (p. 278) calls attention to a group of non-ablauting full-vowel roots (*au-n*- 'hit; begin', *nes*- 'be', *yām*- 'do', *yok*- 'drink', *ai*- 'give', and *eṅk*- 'seize') in which the accent is *not* of the expected fixed-initial type. Three of these are etymologically athematic presents that continue to serve as class I presents: *au-n*- is a former nasal present, *nes*- is probably an old Narten-present (Jasanoff 2003: 74, 224), and *yok*- forms a word equation with Hitt. *ekuzi* 'drinks'. It can be presumed that the unexpected "normal" accentuation of the subjunctives of these verbs is a transferred feature from the homophonous class I presents, where non-initial accent is a classwide feature. Of the three remaining roots (*yām*-, *ai*-, and *eṅk*-), none has a clear IE profile. All, however, have class IXa (non-causative -*sk*-) presents, which should have had initial accent by the *yāmu*-rule (**yā́mäsk*-, etc.), but which gave it up to conform with the synchronic requirement that non-causative class IX presents have "normal" accent (**yā́mäsk*- ⇒ *yāmā́sk*-). The corresponding class I subjunctives may have been "normalized" at the same time.

[10] The sound change underlying the synchronic rule of *ā*-umlaut applied identically in both Tocharian languages and can be confidently dated to the Proto-Tocharian period. The standardly repeated view that *ā*-umlaut applied generally in Toch. B but only to unaccented vowels in Toch. A (so originally Cowgill 1967: 176f.) is incorrect; the class V subjunctive forms that fail to show *ā*-umlaut in Toch. A (e.g., 3 sg. *tarkaṣ* 'will release' vs. B *tārkaṃ*, A *katkaṣ* 'will cross' vs. B *kātkaṃ, etc.) have in fact simply restored Toch. A -*a*- (< *-*æ*-) as the productive *æ*-grade vowel in synchronically ablauting paradigms. The matter is discussed more fully in Jasanoff (2012b: 107, note 7 and 116, note 37).

[11] The accentuation *wikā́tär*, etc. conforms to the synchronic rule given by Peyrot (2013: 99): "if the root has stable *ə*, the subjunctive has suffix accent; if the subjunctive has *a*-grade or *a* : *ə* gradation, it has root accent." The historical interest of these forms lies in the fact that the roots in question originally had active subjunctives with normal ablaut and (it may be assumed) root accent in their *æ/a*-grade forms, as can still be seen in Toch. A (cf. 3 sg. *wekaṣ*, *tsalpaṣ*, 3 pl. *triweñc*). The "medialization" of pre-Toch. B active 3 sg. *waikaṃ, *tsälpaṃ, etc. to middle

together, the class V evidence confirms the hypothesis suggested by the less robust data of class I: initial accent was historically proper only to the forms with a full vowel. It remains to be seen, of course, how the *yāmu*-rule could have played a role in class V, since the second syllable contained *-*a*-, not *-*ə*-. But the explanation for the parallel accentual facts in classes I and V must be the same.

The accentual history of class V must be understood in terms of the rest of its morphological history. The verbs that form class V subjunctives generally also form class I ("-*ā*-") preterites; these too have **æ : **ə* ablaut, albeit with a different distribution of ablaut grades. The "V/I profile," as we may call it, is common to two historically distinct groups of verbs. The first consists of roots that either ended etymologically in a laryngeal or modeled themselves very early on roots that did, with a "normal" (*e* : zero-ablauting) root aorist and a nasal or other characterized present. Roots of this type are *kärs-* 'know' (3 sg. subj. *kārsaṃ*, pret. *śarsa* (< **kersH-t*), pres. *kärsanaṃ*), *tärk-* 'release' (subj. *tārkaṃ*, pret. *carka* (< **terkH-t*), pres. *tärkanaṃ*), and *lu-* 'send' (subj. *lāwäm*, pret. *lyuwa* (< **leuH-t*), pres. *lyewetär*). The second group consists of mostly *non*-laryngeal-final roots with what I have elsewhere called a "stative-intransitive" (*o* : *e*/zero-ablauting) root aorist and a class III or IV present.[12] Roots of this latter type include *wik-* (3 sg. subj. mid. *wikātär*, pret. act. *wika*, pres. mid. *wiketär*), *sruk-* 'die' (subj. *sraukaṃ*, pret. *sruka*, pres. *sruketär*), and *wāk-* 'bloom' (subj. *wākaṃ*, [Toch. A pret. 3 sg. act. *wāka-ṃ*,], pres. *wokotär*). As argued at length in Jasanoff 2012b, the nearly identical morphology of type 1 (*kärs-*) and type 2 (*wik-*) roots in the subjunctive and preterite was the result of a process of mutual assimilation: the *æ*-grade vocalism of the strong stem (PToch. **karsa-*, **wayka-*) was proper to *wik*-type roots and extended to *kärs*-type roots; stem-final *-*a*- was proper to *kärs*-type roots and extended to *wik*-type roots.[13]

The potential significance of this prehistory for the problem at hand is clear. If *wik*-type roots were the locus of *æ*-grade, and if they also originally lacked stem-final *-*a*-, there must have been a period prior to the Proto-Tocharian extension of stem-final *-*a*- when late PToch. **wáyka-*, **sráwka-*, **wáka-* (< pre-*a*-umlaut **wɛ́yka-*, etc.) were represented by pre-Toch. **wɛ́ykə-*, **srɛ́wkə-*, **wǎ́kə-*, with the same stem-final *-*ə*- as in the formally parallel subjunctives of class I. At that linguistic stage, trisyllabic Proto-Tocharian forms like 2 sg. **wáykatə* 'you will vanish', **sráwkatə* 'you will die', and **wákatə* 'you will bloom' would have had the shape **wɛ́ykətə*, **srɛ́wkətə*, and **wǎ́kətə*; as such, they would have owed their initial accent to the *yāmu*-rule. A case can thus be

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wikātär, *tsälpātär*, etc. must have taken place at a time when *ə*-grade called for "suffix" accent even when the root *did* show gradation.

[12] The class III/IV present in such cases represents the "stative-intransitive root present", a formation derivationally based on the stative-intransitive aorist. The morphological background is given in Jasanoff (2003: 154ff.).

[13] The one place in the V/I complex where the *kärs-* and *wik*-types are still distinguishable is in the active singular of the preterit, where only *kärs*-type roots, which inherited root aorists with **e* : zero ablaut, and not *wik*-type roots, which originally had aorists with **o* : **e*/zero ablaut, show phonologically regular initial palatalization.

made – and it will be our position here – that prior to the generalization of stem-final *-a-* from *kärs*-type to *wik*-type roots, fixed initial accent was phonologically regular in the full-vowel forms of *wik*-type roots. Later, with the morphological merger of the *wik*- and *kärs*-types, it spread to the full-vowel forms of *kärs*-type roots, and eventually to the *ə*-grade forms as well. The entire process, beginning with the *yāmu*-rule, must have been completed within the Proto-Tocharian period.

The *yāmu*-rule also suggests an explanation for the accentuation of the causative. The productive form of the causative present suffix in Toch. B is *-äsk-*, with originally anaptyctic *-ə-*. Fixed initial accent was thus regular at the outset in the causative stems of full-vowel roots that did not etymologically end in a laryngeal, e.g., pres. IXb *kä́tkäsk-* 'gladden', *wä́käsk-* (presupposed by pret. IV *wākäṣṣ-*) 'cause to bloom', *tsä́rwäsk-* 'console', etc. But *-äsk-* was also analogically generalized as the synchronic causative suffix even when there *was* a root-final laryngeal. We thus find, e.g., *śarsäsk-* (= Toch. A *śärsäs-*) 'make known' rather than *śarsask-* (< *kersH-sk-*), and *kalpäsk-* (= Toch. A *kälpäs-*) 'bestow' rather than *kalpask-* (< *kl̥pH-sk-*; cf. subj. VI *källā-* < *kälpnā-*).[14] Once *-äsk-* (or, rather, PToch. *-əsk-*) had been installed as the universal causative present marker, initial accent would have been a regular feature of *all* causative presents with a full vowel in the root. The further spread of initial accent to "light" roots must have been analogical. The process can be observed in detail in the minimal pairs *anä́sk-* 'breathe' : caus. *ä́näsk-* 'make inhale', *kälpä́sk-* 'obtain' : caus. *kálpäsk-*, and pres. X *tänmásk-* 'be born' : caus. *tánmäsk-* 'give birth to'. In the "root" *an-āsk-*, the non-causative stem *anä́sk-* (< post-PIE *h₂enh₁-sḱe/o-*) is the original present, made by adding the iterative suffix *-sḱe/o-* to the laryngeal-final root *h₂enh₁-*. The causative *ä́näsk-* was a later creation, re-combined from the pre-Tocharian synchronic root *an-* and the morphologized causative suffix *-əsk-*. Both *anä́sk-* and *ä́näsk-* are accentually regular: the first has "normal" accent, the second initial accent by the *yāmu*-rule. In the corresponding forms of *kälp-* 'obtain', *-āsk-* was again regularly replaced by *-äsk-* in the causative. But since the root in this case did not have a full vowel, the accent would have remained on the second syllable of the causative (*kälpásk-*) had it not been analogically shifted to the first syllable (*kálpäsk-*) in imitation of the pattern in heavy roots. In the third case, *täm-* 'be born', the causative and non-causative stems were never segmentally distinct. Both go back to an extended present in *-nu-sḱe/o-*, which maintained its expected second-syllable accent in the base verb (3 sg. *tänmáṣṣäṃ*, *tänmástär* < *täm-n-*) but analogically shifted it leftwards in the causative (*tánmästär*).[15]

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[14] The "loss of *A*-character" in the causative, as Malzahn calls it (p. 438ff.), was clearly a Proto-Tocharian feature in the present proper. In the subjunctive, however, Toch. A has *-ās-* (< *-ask-*); cf. 3 sg. subj. *wikāṣ* (< *-āṣäṣ*) 'will expel' vs. pres. *wikäṣ* (< *-äṣäṣ*), subj. *prutkāṣ* 'will close' vs. pres. *prutkäṣ*, etc., suggesting that the generalization of *-əsk-* over *-ask-* was limited to the indicative at the Proto-Tocharian stage.

[15] By the same token, the non-causative *sk*-presents (class IXa) of non-laryngeal-final full-vowel roots, which would regularly have had initial accent by the *yāmu*-rule, shifted it rightwards: *eṅkásk-* 'seize', *aklásk-* 'learn', *twasásk-* 'shine', etc. Cf. note 9.

Initial accent is similarly characteristic of the causative subjunctive and preterite. Nothing special needs to be said about the subjunctive in -*äsk*-, which is etymologically the same formation as the present,[16] or the class IV causative preterites in -*äṣṣa*- of heavy roots, which are based on the corresponding causative presents and share their accentual properties (cf., e.g., 3 sg. *swā́säṣṣa* 'caused to rain' (pres. *swā́säsk*-), 3 sg. mid. *tsā́rwäṣṣate* 'comforted' (pres. *tsā́rwäsk*-)). The "strong" causative preterites are more interesting. These come in two varieties, the lengthened-grade type that furnishes the finite forms in Toch. B (3 sg. *śā́rsa*, 2 sg. *śā́rsasta*, etc. < **kērsH*-), and the reduplicated type that gives the finite forms in Toch. A (*śaśärs*) and the past participle in both languages (A *śaśärsu*, B *śeśśarsu*). Both formations, though quite distinct etymologically (cf. note 3), are assigned to class II by Krause and Thomas. The initial accent in *śā́rsa*, *śā́rsasta* has the same explanation as the initial accent of the class V subjunctive (*kā́rsaṃ*). As in the class V subjunctive, a subset of the roots that form class II preterites historically ended in a laryngeal (e.g., *kärs*- itself); the rest, a larger group, did not (e.g., *pränk*- 'restrain oneself', caus. pret. 3 sg. **prä́ṅka*, 2 sg. *prä́ṅkasta* 'rejected').[17] In the end, the productive stem vowel **-a*- (< **-H*-) spread from roots of the *kärs*-type to roots of the *pränk*-type. Prior to this, however, forms like Toch. B **prä́ṅka*, *prä́ṅkasta* would have had the pre-Tocharian shape **pr⁽ʸ⁾ä́ṅk(ə)*, **pr⁽ʸ⁾ä́ṅkəsta*, with initial accent by the *yāmu*-rule. It was this subtype that imposed its accentual profile on the class as a whole.

As for the other major causative preterite formation – the reduplicated type of Toch. A *śaśärs* – we have no way of studying its accentual properties directly, since the finite paradigm corresponding to Toch. A *śaśärs* was completely replaced by the *śā́rsa*-type in Toch. B. It is worth noting, however, that since the reduplicated causative preterite invariably had a *ə*-grade vowel in the root syllable, the Proto-Tocharian accent in these forms would always have been initial by the *yāmu*-rule (**śä́śərsa*, **pʸä́pr⁽ʸ⁾əṅka*, **kä́kəlpa*, etc.). Even though the *śaśärs*-type is no longer extant in Toch. B, its uniform initial accent may have played an analogical role in helping to fix initial accent in the *śā́rsa*-type and, beyond that, in the causative system as a whole.[18]

No study of the Toch. B accent, and the verbal accent in particular, can be complete without a discussion of the major remaining category with fixed initial accent in a subset of its forms, namely, the class III (*s*-) preterite. The term "*s*-preterite," of course, is a misnomer, since the distribution of the sigmatic element is notoriously defective. In the middle, -*s*- runs through the entire paradigm, as in Greek and Indo-Iranian (Toch. B sg. **parksamai*, **-satai*, **-sate*, pl. **-samte*, **-sat*, -*sante*); in the active, however, it is confined to the 3 sg., as (*mutatis mutandis*) in Hittite (3 sg. *preksa*, but 1 sg. *prek(u)wa*,

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[16]   With the qualification mentioned in note 14. Class IXb presents and subjunctives are identical in Toch. B.

[17]   The example of *pränk*- is more convenient in this category than *wik*- (pret. II *yaika* (< **wyáyka* < **wyä́yk(ə)*)).

[18]   The non-initial accent of the corresponding Toch. B participles (*śeśśársu*, *peprä́ṅku*, etc.) simply reflects the fact that all reduplicated participles in Toch. B have assimilated to the "normal" accent pattern.

2 sg. *prekasta, pl. *prekam, -as, -ar). The sigmatic and non-sigmatic stems of the class III preterite differ in their accentual behavior. The sigmatic forms have fixed initial accent (préksa-ne, párksamai), while the non-sigmatic forms have "regular" accent on the second syllable (*prekam, *-as, -ar = *-ám(ä), *-ás(ä), *-ár(ä),[19] etc.). The initial accent of the sigmatic forms, which in ablauting roots is associated with æ-grade in the 3 sg. active but ə-grade in the numerically preponderant middle, cannot be satisfactorily explained by the yāmu-rule. The key discovery was Winter's recognition (1993: 197ff.) that the Proto-Tocharian shape of the s-element was *-əs-, with the anaptyctic *-ə- proper to preforms of the type 3 sg. act. *pr⁽ʸ⁾ækə̣s[a]t < *-ḱ-s-t and 3 sg. mid. *pərkə̣s[a]tæ < *-ḱ-s-to. In the middle, according to Winter, the second-syllable accent regularly stood on the *-ə- (*pərkásatæ, etc.), whence it was retracted to the root syllable following the syncope of *ə before dental obstruents in open syllables.[20] The 3 sg. active was explained by Winter in the same way (*pr⁽ʸ⁾ækása > préksa). Under a yāmu-rule-based account, of course, pre-Toch. *pr⁽ʸ⁾ǽkəsa would never have lost its initial accent at all.

The *non*-sigmatic forms of the s-preterite, i.e., the entire active paradigm outside the 3 sg., are more problematic. The second-syllable accent of these forms defies the yāmu-rule, which would have predicted *prékästa, *prékäm(ä), etc., with the same accentuation pattern as the sigmatic forms. The anomaly of s-less forms with "regular" accent and sigmatic forms with initial accent in the same paradigm calls for an explanation. The solution is probably to be sought in the plural, where the parallel endings -mä (< *-mes?), -sä (< ??), and -rä (< *-rəs < *-r̥s)[21] pattern together. Synchronically, 1-3 pl. *prekám(ä), *-ás(ä), *-ár(ä) seem to insert an accent-attracting Fremdvokal before the endings; in this respect they recall other Toch. B words with accented anaptyctic -ä- in an open syllable, e.g., antápi 'both' (< earlier *ä̃nt(ä)p-; cf. Toch. A āmpi), ṣpáne 'sleep' (< *ṣä́p(ä)næ; cf. Toch. A ṣpäṃ, with historically separate anaptyxis),[22] adjectives like astáre 'pure' (< *ä́st(ä)re; cf. Toch. A āṣtär), class VI presents like kärsána- 'know' (< *kä́rs(ä)na-; cf. Toch. A kärsnā-). Although much has still to be learned about the chronology of the layers of epenthesis and syncope in Tocharian, cases of this type clearly reflect an inner-Toch. B process, distinct from the Proto-Tocharian anaptyxis that established *-ə- in the class I subjunctive, *-əsk- in the class IXb present, and *-əs- in the class III preterite. Unlike the older, wholly

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[19] The 3 pl. ending is set up, as it must be, with a final schwa/Fremdvokal to account for the surface accentuation prekár. But since the latent vowel never surfaces, it must have been lost very early, perhaps by special sound change after -r. See note 21.

[20] No specific position is taken here on Winter's formulation of the rule. That there was an early syncope in these forms is unquestionable.

[21] The PIE perfect/h₂e-conjugation ending after consonants was *-r̥s, making it a better candidate, under any theory of the Tocharian s-preterite, than *-r̥nt (Cowgill apud Ringe 1990: 197ff.). The syllabification -rəs may have been phonetically regular or may have been influenced by the form of the 1 pl. and 2 pl.

[22] The appearance or non-appearance of the Fremdvokal in Toch. A is largely a matter of phonotactics; [ṣpən] is the only way the Toch. A sequence "ṣpn" could have been vocalized.

morphologized underlying *-ə-/-ä- of the latter forms, the Toch. B -ä- that attracts the accent in open syllables is subject to syncope in metrical contexts (cf. ā́stre beside astáre, kā́rsna- beside kärsána-, etc.) and overrides the yāmu-rule. It is this more recent -ä-, I suggest, that was imported into the plural forms of roots like *prek- (*prekám(ä), etc.) from its "home" in the s-preterites of roots ending in a cluster. In cluster-final roots the epenthesis of a Fremdvokal would have been phonologically regular, at least before -m- and -r-.[23] Once established in the plural, accented -ā́- was transferred to the 2 sg. (prekásta < *-ā́sta), where the existing -ä- was etymologically of the older, Proto-Tocharian type, and probably also to the 1 sg., if the forms prekuwa, ñauskuwa 'I squeezed', and pleṅkuwa 'I sold' point to an accented ending -úwa.

The case of the forms just discussed underscores a point that hardly needs to be repeated: the yāmu-rule – or, more accurately, the rule that shifted the accent from initial to second syllables *except* in yāmu-type environments – was first and foremost a sound change of Proto-Tocharian, not a synchronic rule of Toch. B. A terminus ante quem for the historical rule was the Proto-Tocharian extension of stem-final *-a- from kärs- to wik- and pränk-type roots. In the aftermath of the yāmu-rule there must have been a period when it was reflected in the grammar as a synchronic rule or constraint; during this time, sequences of the type *æ ... ə́, *á ... o, for example, would have been phonotactically prohibited. But the transparency of the synchronic rule was obscured by further segmental sound changes. One such change was the contraction of unaccented *-əwæ- to PToch. *-o- or *-ā́-,[24] which created instances of fixed initial accent before vowels other than *ə (cf., e.g., obl. sg., nom. pl. yāmoṣ(ä) < *-əwæṣə). Another was the lowering of *ə- to *æ- in word-initial position, which generated cases of accented *ə after an initial full vowel in categories like the privative (cf., e.g., etáṅkätte 'unrestrained' (< *æ(n)tə́-), ekámätte 'not arrived, future' (< *æ(n)kə́-); *æ(n)- < *ən- < *n̥-). Over time, the cumulative opacity-inducing effects of sound change were compounded by the workings of analogy, and the original rationale for the placement of the accent became completely unrecoverable.[25] Most of this history took place before the separation of the two Tocharian languages, making it likely that the Toch. B accent system and the accent system of Proto-Tocharian were substantially identical.

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[23] Cf., e.g., plyeṅkám(ä), plyeṅkáre 'we/they sold'. In the 2 pl., the ending -ás(ä) follows the lead of the other two plural forms; after stop + stop clusters, including the common -tk-, epenthesis would have been regular here as well.

[24] Since the product of the contraction is known only from Toch. B, it is impossible to tell which of the two Proto-Tocharian o-vowels it represents.

[25] Among the analogical changes that would have been important in this connection, mention has already been made of the spread of root-final *-a-, the extension of initial accent from strong to weak paradigmatic positions in the subjunctive and from heavy to light roots in the causative, the generalization of non-initial accentuation in reduplicated participles, and the spread of accent-attracting -ä- in the s-less forms of the class III preterite in Toch. B. There were many other such developments, all tending to restrict the domain of fixed initial accent to a small number of morphologically defined categories.

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TOCHARIAN TEXTS IN CONTEXT

INTERNATIONAL CONFERENCE ON TOCHARIAN
MANUSCRIPTS AND SILK ROAD CULTURE

held June 26–28, 2013 in Vienna

Melanie Malzahn, Michaël Peyrot, Hannes Fellner and
Theresa-Susanna Illés

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Preface

When at the end of the 19th century the ancient Silk Road began to open again, it initiated the rediscovery of forgotten civilizations for the scholarly world. Among the manuscripts that were unearthed in Central Asia, the ones written in the two Tocharian languages led to the foundation of the new field of Tocharian studies and provided linguistics with a new branch of Indo-European. In the same way that the ancient Silk Road cultures were internationally orientated, mutually cooperative, and multilingual, Silk Road Studies and Tocharian Studies have to be interdisciplinary and collaborative.

In order to make Tocharian texts more accessible to the scholarly community and to promote interdisciplinary research, the University of Vienna has been hosting an online edition project of Tocharian manuscripts, which is funded by the Austrian Science Fund (Y 492-G20), since 2011. From June 26 to 28, 2013, the same institutions generously sponsored the International Conference on Tocharian Manuscripts and Silk Road Culture: Tocharian Texts in Context, and they also made the publication of the present volume possible.

This volume collects twenty three conference papers ranging from Tocharian philology and linguistics to studies on Sanskrit, Uyghur, Middle Iranian, historical and archeological research on the region where Tocharian was spoken, and the history of Silk Road Studies and thus exemplifies the wide range of approaches in the field. In view of the diverse disciplines and scholarly traditions represented in the collection, we have not imposed a standardized model of transliteration or style on the papers.

It was in a spirit of international cooperation and mutual understanding, vivid in first millennium Turkestan societies, that Tocharian texts were written down at all, and it was due to the re-establishment of ancient ties that Tocharian texts were rediscovered; so we hope that connecting scholars and ideas in the present volume will lead to a better understanding of the lost Silk Road cultures.

Vienna, June 2015   The editors