The Tocharian Subjunctive and Preterite in *-a-

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The past half century has seen the emergence of Tocharian as a full participant, so to speak, in the enterprise of IE linguistics. At the beginning of our honorand's career, it was still common to regard Tocharian as an obscure outlier of Italic and Celtic, strangely displaced to Central Asia, but connected to the languages of the West by a series of high-profile isoglosses. Starting in the late 1960's, these links were conclusively shown to be illusory. The *centum* character of Tocharian turned out not to be a specifically Western feature, but simply a non-East Central one. The middle endings in *-*r* were recognized as a shared archaism of Tocharian, Italic, Celtic, and Anatolian, rather than as a common innovation of Tocharian and "Italo-Celtic." Most surprisingly, perhaps, the Tocharian "*ā*-subjunctive" (= Krause and Thomas' class V) and "*ā*-preterite" (= Krause and Thomas' class I) were found to have nothing to do with their similarly named lookalikes, the Italic and Celtic *ā*-subjunctive (e.g., Lat. *ferat*, OIr. *·bera*) and *ā*-imperfect/preterite (Lat. impf. *erat*, *-bat*; OIr. pret. *bá*-). The actual source of the Tocharian *ā*-formations, which are closely related, will be our topic here.[1]

The modern period in the study of the Tocharian verbal system can fairly be said to have begun with a groundbreaking article on the Tocharian subjunctive by Warren Cowgill (Cowgill 1967). Building on earlier observations by Lane (1959) and especially Winter (1962: 32 f.), Cowgill established two facts that have served as the basis for all subsequent work on the class V subjunctive and class I preterite:

[1] The wide range of opinions expressed on these forms over the years is surveyed by Malzahn (2010: 140-69, 304-16). Cases where my own published views have changed will be noted below.

1) the stem-final "-*ā*-" was not a tense or mood sign, but a component of the verbal root or base;

2) the characteristic *ā* : *ä* ablaut pattern of the class V subjunctive in Toch. B (e.g., 3 sg. *kārsaṃ* 'will know', mid. *karsatär* (**kā́rsā-*) was the reflex, with *a*-umlaut, of an older **æ* : **ə* (< **o* : *zero*) ablaut pattern that also appears in the subjunctives of class I (e.g., 1 sg. B *neku* 'I will destroy, 3 pl. *nakäṃ* (**nā́käṃ*)).[2]

Cowgill went no further. He did not take a firm position on the origin of the **o* : *zero* ablaut pattern and barely discussed the relationship of the subjunctive to the preterite.[3] But his observations led directly to the modern practice of classifying Tocharian verbal roots into those with "*A*-character" and those without it, a distinction comparable to the difference between *seṭ* and *aniṭ* roots in Sanskrit. Like the *-i-* of Sanskrit *seṭ* roots, the **-a-* of *A*-character roots was a vocalized laryngeal.[4]

We can begin with a review of the descriptive facts. The great majority of *A*-character roots make (non-causative) subjunctives of class V and (non-causative) preterites of class I. In cases like B *kaut-*, A *kot-* 'split', where the root contains a "full vowel" (= B *ā*, *e*, *o*, *ai*, *au*) or has generalized a full vowel analogically, the subjunctive and preterite are made by adding the present and preterite endings, respectively, to the invariant base in **-a-*:

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[2] Notational conventions: for Proto-Tocharian forms I use **æ* for the vowel ancestral to B *e* and A *a*, **å* for the vowel ancestral to B *o* and A *a*, **a* for [a], and **ə* for the reduced vowel ancestral to the *Fremdvokal*. I retain Tocharian orthography for shallow reconstructions within Toch. A or Toch. B (e.g., **kā́rsātär*, **nā́käṃ*).

[3] Although he names the PIE perfect as a possible source of the historical *o*-grade of the subjunctive (172), he specifically avoids committing himself to an identification of the two categories. The preterite is only mentioned in connection with the fact that the **-a-* of the subjunctive "regularly recurs . . . in the imperative, the preterit, the past participle, and often in the present as well" (171, note 1).

[4] Cowgill himself is reliably reported to have humorously referred to roots with *A*-character as "*sāt* roots." For reasons to be explained below (see note 36), I am no longer convinced that there is any evidence for a true *ā*-preterite in Tocharian, with PToch. **-a-* representing or replacing **-å-* < PIE **-eh₂-*.

		Toch. B		Toch. A	
		SUBJ. V	PRET. I	SUBJ. V	PRET. I
act.	3 sg.	**kautaṃ*[5]	*kauta*	**kotaṣ*	*kot*
	3 pl.	*kautaṃ*	**kautāre*	**koteñc*	**kotar*
mid.	3 sg.	*kautatär*	*kautāte*	**kotatär*	**kotat*

But when the root vowel is *ä*, *i* (= /äy/), or *u* (= /äw/) there is typically paradigmatic ablaut. In such cases the active singular of the subjunctive and the active plural of the preterite (A only)[6] have "*æ*-grade," while the active plural of the subjunctive, the active singular of the preterite, and all middle forms have "*ə*-grade." The preterite active singular and plural (B only) sometimes show root-initial palatalization. Thus, for AB *kärs*-:

		Toch. B		Toch. A	
		SUBJ. V	PRET. I	SUBJ. V	PRET. I
act.	3 sg.	*kārsaṃ*	*śarsa*	*krasaṣ*[7]	*śärs*
	3 pl.	**karsaṃ*	*śärsāre*	*kärseñc*	*krasar*
mid.	3 sg.	*karsatär*	*kärsāte*	*kärsātär*	*kärsāt*

[5] Forms marked with an asterisk are secure, though not attested for this root. Here and below, I rely on the invaluable philological collection in Malzahn (2010; henceforth simply "Malzahn").

[6] The stem of the active singular has been analogically extended to the plural in Toch. B. The older situation is still recoverable from the relic forms 3 du. *stāmais* (: *stäm*- 'stand') and 3 pl. *prautkar* (: *prutk*- 'fill up (intr.)'; cf. Malzahn 138 f.).

[7] The apparent metathesis in the *æ*-grade forms of *kärs*-, as well as in *pärs*- 'sprinkle' and *märs*- 'forget', is the product of a complex interplay of sound law and analogy. The Proto-Tocharian **æ* : **ə* alternation pattern was highly productive in pre-Toch. A — so much so that the surface vowel **æ* (> A *a*) was generally *restored* in ablauting environments where it had been lowered to **a* (> A *ā*) by *a*-umlaut. Thus, e.g., the pre-Tocharian "strong" subjunctive stem **kætka*- (root AB *kätk*- 'cross over'), which had become PToch. **katka*- by *a*-umlaut, was remade to pre-Toch. A **kætka*- on the basis of the "weak" stem **kətka*-. (Note that it was this remodeling, and not (*pace* Cowgill, *op. cit.* 176 f.) an accent-linked difference in the Toch. A and B *a*-umlaut rules, that caused the difference between B *kātka*- (with *a*-umlaut) and A *katka*- (without it).) In the case of roots ending in **-rs*-, the remodeling was apparently preceded by a phonologically regular (and phonetically trivial) metathesis of **Cərs*- to **Crəs*- in the weak stem, so that the apophonic "upgrade," when it happened, produced **kræsa*-, not **kærsa*-, as the replacement of **karsa*- (= B *kārsa*-).

The origin of these forms — and, in particular, of their ablaut pattern — remains an unresolved issue.[8]

The subj. V/pret. I nexus is not the only place in Tocharian where a subjunctive and preterite appear to be formed from ablaut variants of the same stem. The treatment of the PIE root *$g^{u}em$- 'go, come' is instructive in this context. We know that this verb made a root aorist in the parent language, with underlying *e*-grade in the singular, dual, and 1-2 pl. (*g^{u}*ém-ṃ*, *g^{u}*ém-s*, etc.), and zero grade in the 3 pl. (*g^{u}*(ṃ)m-ént*);[9] there was also a lengthened-grade variant (*g^{u}*ēm*-), introduced by the inner-IE phonological change of *-*emṃ* to *-*ēm* in the 1 sg.[10] The resulting morphophonemic complexity was resolved by splitting the paradigm: *e*-grade was generalized in the "injunctive" function of the original aorist (> subj. II AB *śäm*-),[11] while the lengthened- and zero-grade forms took over the aorist's role as a past tense (> pret. VI B 1 sg. *kamau*, 2-3 sg. *śem*, 1 pl. *kmem*,

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[8] Mention should also be made of two superficially similar but basically unrelated groups of forms that will not be treated in detail here:

1) the preterite type B 3 sg. *klyauṣa*, A *klyoṣ* 'heard' (Malzahn 191 ff.), a subtype of class I preterites not exhibiting ablaut, not associated with *A*-character roots, and not paired with class V subjunctives. The defining characteristic of these forms, which are mostly associated with roots in *-s-*, *-sk-*, and *-tk-*, is palatalization of the root-final consonant. There is an obvious connection with the productive Toch. A imperfect in palatalizing *-ā-* (3 sg. **klyoṣā*), but the details are obscure.

2) the preterite type B *lyāka*, A (imperfect) *lyāk* 'saw' (Malzahn 158 ff., 186 ff., 262 f.), a small group of class I preterites with historical lengthened grade (PToch. **lyāka* = Lat. *lēgī* 'read'), probably resting on the dissociated imperfects of Narten presents (cf. Weiss 1993: 178 ff.; Jasanoff forthcoming). The corresponding class V subjunctives are paired with identical class V presents and have invariant zero grade (AB pres., subj. *l(ä)kā*-). As suggested by Pinault (2008: 586), the pattern may have originated in roots like *śuw*- 'eat', where the preterite continues the strong stem of the Narten present (pret. *śāwa* < *$\hat{g}$i$\acute{e}$uH-t*), and the present and subjunctive continue the analogical zero-grade weak stem (3 sg. *śuwaṃ*, as if < *$\hat{g}$iuH-ti*; cf. Ved. *stáuti* : *stuvánti* 'praise' and note 28 below).

[9] On the full grade of the dual and 1-2 pl., cf. Jasanoff (2003; henceforth "*HIEV*": 81 ff.), building on Hoffmann (1968: 7 f.).

[10] For the history of this idea, cf. Malzahn (226). As pointed out to me by Alan Nussbaum many years ago, *g^{u}*ēm* would also have been the regular reflex of *g^{u}*em-s* in the 2 sg.

[11] The limited evidence for a thematic stem, as if from a root aorist subjunctive *g^{u}*éme/o*- (thus, e.g., Kim 2007: 189 f.) is easily set aside; cf. Malzahn (321 f.).

3 pl. *kameṃ*).[12] Thus, despite their very different appearance, both the subjunctive and preterite go back to the same PIE aorist indicative/injunctive.

More immediately relevant to the problem of the class V/class I complex is the larger-scale paradigm split that gave rise to the ablauting subjunctives of class I and their associated preterites of class III. The class I subjunctives, as Cowgill noted, are the formal analogue of class V for non-*A*-character roots; the relationship of the "strong" stem **næk-* (B 1 sg. *neku*, A 2 sg. *nakät*) to the "weak" stem **nək-* (B 1 pl. *nkem*, 3 pl. *nakäṃ*) is precisely the same as that of "strong" **karsa-* (< **kærsa-*) to "weak" **kərsa-*. As I have argued at length elsewhere (1988: 68 f.; *HIEV* 199 ff.), subjunctives of this type ultimately go back to transitive h_2e-conjugation root aorists with **o* : **e* ablaut (**nok̂-*/**nek̂-*; similarly **prok̂-*/**prek̂-* 'ask', **dhog^{u}h-*/**dheg^{u}h-* 'burn', etc.). An oddity of this formation at the PIE level was that, for reasons perhaps connected with the marking of transitivity, the theoretically expected 3 sg. in **-e* (**nók-e*, **prók̂-e*, **dhóg^{u}h-e*) was replaced within the protolanguage by a suppletive sigmatic form with lengthened grade (**nék̂-s-t*, **prék̂-s-t*, **dhég^{u}h-s-t*).[13] The result was the PIE "presigmatic" aorist, with *o*-grade in the 1-2 sg., *ē*-grade (and **-s-*) in the 3 sg., and *e*-grade in the 3 pl.:

**nók̂-h_2e* 'I destroyed'	**nók̂-me-* (**nék̂-*?)[14]
**nók̂-th$_2e$*	**nók̂-(t)e* (**nék̂-*?)[14]
**nék̂-s-t*	**nék̂-r̥s*

[12] with thematic inflection borrowed from *lät-* 'go out' (pret. 3 sg. *lac* < **h$_1$ludhet*, pl. *lateṃ* < **h$_1$ludhont*). A similar mixture of lengthened- and non-lengthened-grade forms must underlie Osc. *kúmbened* 'conuēnit' beside Lat. *uēnī*.

[13] The sigmatic forms were properly 3 sg. imperfects of the type Hitt. *ganešzi* 'finds' (< **ĝnéh$_3$-s-ti*). I have speculated (*ibid.*) that the rationale for the suppletion was the inconvenient near-homophony of 3 sg. act. **nók̂-e* 'destroyed', etc. with 3 sg. mid. **nók̂-o* 'perished'.

[14] *e*-grade is favored in *HIEV* (164 f., 178). As will appear below, however, I now consider it likelier that the 1-2 pl., like the corresponding forms of "normal" root aorists (cf. note 9), were apophonically strong in the parent language, with the same vocalism as the singular.

These forms were differently treated in the different IE languages. In the main body of the family ("Inner IE") the sigmatic stem (**nēk̂-s-*, etc.) was generalized to all persons and numbers of the active, giving the classical sigmatic aorist. In Anatolian the presigmatic aorist was pressed into service as the all-purpose preterite of the *ḫi*-conjugation (e.g., Hitt. *dāḫḫun* 'I took', *dātta*, *dāš*, etc.). In Tocharian there was a paradigm split. The sigmatic stem-form was suppressed in "injunctive" uses, giving the class I subjunctive **næk-*/**nək-* < **nok̂-*/**nek̂-*, while in past tense uses the *ē*-vocalism of the 3 sg. (though not the **-s-*) was generalized to the rest of the paradigm, giving the class III "*s*-preterite" (cf. A 1 sg. **ñakwā*, 2 sg. *ñakäṣt*, 3 sg. *ñakäs*, 3 pl. *ñakär*; B *nekwa*, *nekasta*, etc., with analogical depalatalization of *ñ-* to *n-*).

A replica of this scenario took place in the middle, which was contrastively intransitive. Here (cf. *HIEV* 201 f.) the point of departure would have been

**nék̂-h₂e* 'I perished'	**nék̂-medhh₂*
**nék̂-th₂e*	**nék̂-dhu(u̯)e*
**nók̂-o*	**nék̂-ro*

From this anomalous paradigm two regularized categories emerged: 1) the class III subjunctive (3 sg. B *nketär*, A *nkatär* < **nek̂-o-*),[15] based on the generalized *e*-grade stem with remade 3 sg. **nék̂-or* > **nék̂-o-tor*; and 2) the "class 0" preterite (A 3 sg. *nakät*, pl. *nakänt* < **nók̂-to*, **nók̂-n̥to*), with extension of the *o*-grade of the 3 sg. to (at least) the 3 pl.[16]

Given these models, it is only natural to wonder whether the class V/class I complex — the *ā*-subjunctive and *ā*-preterite — might not likewise have come from a unitary root

[15] The expected palatalization is still seen in the morphologically parallel B *cmetär*, A *cmatär* (: *täm-* 'be born').

[16] Only the 3 sg. and 3 pl. are attested for this formation, which is sigmatized in Toch. B (*neksate*, etc.). The term "class 0" is due to Malzahn (111 ff.); Krause and Thomas (1960: 247 ff.) assign both *nakät* and *neksate* to class III.

aorist. A number of signs point in this direction. AB *kärs*-, though atypically based on a root that was historically *aniṭ* (cf. *LIV* 355 f.), is for all practical purposes *seṭ* (**kersH*-) in Tocharian, with a class VI nasal present in both languages (3 sg. B *kärs(a)naṃ*, A *kärsnāṣ*). Nasal presents were correlated with root aorists in PIE, a pattern illustrated for roots of the structure **TeRTH-*/**TReTH-* by pairs like Ved. *stabhnā́ti* 'supports', aor. *ástambhīt*; *muṣṇā́ti* 'steals', aor. *móṣi(ṣ)-*; *gr̥bhṇā́ti* 'seizes', aor. *ágrabhīt*; etc.[17] Such an aorist clearly underlies B 3 sg. pret. act. *śarsa*, mid. *kärsāte* (= A *śärs*, *kärsāt*), pointing to a proto-paradigm 3 sg. act. **kersH-t*, mid. **kr̥sH-to*, with regular palatalization before the *e*-grade of the active but not the zero grade of the middle. Other roots with the *kärs*-profile include *tärk*- 'release' (B pres. *tärk(a)naṃ*, pret. *carka*), *käl*- 'bring' (B pres. *källāsk*- < **käl-nā*-, pret. *śala*), and *kätk*- 'cross over' (B pres. *kätk(a)naṃ*, pret. *śatka*); cf. further Malzahn (122 f., 126). Interestingly, B *ś(c)ama*, A *śäm* < **stémbhH-t*, the class I preterite of the defective root B *stäm*-, A *ṣtäm*- 'stand', forms a word equation with Ved. *ástambhīt*.

Yet this cannot be the whole story. A PIE root aorist with **e* : *zero* ablaut can explain the palatalizing *ə*-grade of the class I preterite active singular (*śarsa*, *śärs*) and the non-palatalizing *ə*-grade of the corresponding middle (*kärsāte*, *kärsāt*), but not the *æ*-grade (< *o*-grade) of the preterite plural (3 pl. A *krasar*; likewise *tarkar*, *kalar*, *katkar*, *ṣtamar*, etc.) or the *æ*-grade, presumably related, of the subjunctive singular (3 sg. B *kārsaṃ*, *tārkaṃ*, *kālaṃ*, *katkaṃ* (MQ-writing for **kātkaṃ*), *stāmaṃ*; A *krasaṣ*, *tarkaṣ*, **kalaṣ*, *katkaṣ*, *ṣtamaṣ*). The *æ*-grade/*o*-grade forms in the subj. V/pret. I "mix" must therefore have some other source. The most frequently mentioned candidate for this role is the PIE perfect.[18] But a perfect origin is unlikely for two reasons. First, the perfect is evidently reflected in reduplicated past participles of the type B *peparku*, A *papärku* 'asked' and B *papaikau*, A *pāpeku* 'painted'. It is hard to see why reduplication would

[17] I have long since withdrawn my suggestion (1983: 61 f.) that the final laryngeal of the synchronic roots *grabh*^{i}-, *muṣ*^{i}-, *stabh*^{i}-, etc. was a historical aorist marker **-h_2-*.

[18] Malzahn (306 ff.) gives an exhaustive survey of the proposals.

have been retained in these forms but dropped in their finite counterparts.[19] Second, in the specific case of *peparku*/*papärku* and its immediate morphological congeners (e.g., *nen(e)ku*/*nanku* 'perished', *tsetseku*/*tsatsku* 'burnt'), the corresponding finite forms belong to the *s*-preterite (class III). *s*-preterites, as we have seen, are paired with class I subjunctives and based on underlying h_2e-conjugation root aorists with **o* : **e* ablaut. Since the class I and class V subjunctives are effectively *aniṭ* and *seṭ* versions of the same category, it might have been expected that the *æ*-grade forms of the class V/class I complex would go back, not to the perfect, but to an *o*/*e*-ablauting h_2e-conjugation aorist as well.

In *HIEV* (161 ff.), I discussed the class V subjunctives of the class of roots typified by A *lit-* 'fall', B *märs-* 'forget', and AB *wik-* 'disappear', which form deponent presents of class III (stem vowel **-æ-* < **-o-*; cf. 3 sg. A **litatär*, inf. *litatsi*; B *märsetär*; B *wiketär*, A *wikatär*). From an IE point of view these roots are quite unlike *kärs-*, *käl-*, *stäm-*/*ṣtäm-*, and the others just discussed; they did not make nasal presents or active root aorists of the traditional type, and they did not historically end in a laryngeal. The verbs that form class III (and class IV)[20] presents in Tocharian are rather associated with what I have called "stative-intransitive systems" — derivational complexes consisting of a stative perfect, a *i̯e*/*o*-present, a "root stative-intransitive present" in 3 sg. **-or*, and a h_2e-conjugation "stative-intransitive aorist" with **o* : **e* (later **o* : *zero*) ablaut.[21] *lit-* nicely

[19] Even less likely, in my view, is the idea, favored by Malzahn (310 ff.) and other scholars, that the vowel of the reduplication syllable could have been remade to **-o-* (> **-æ-*/**-a-*) in the participle (**pep(o)iḱ-u̯(o)s-* → **popoik-* > PToch. **papæyk-*) but retained as **-e-* (> **-ə-* > **-Ø-*) in the finite forms (3 sg. **pepoiḱ-* > **pəpæyk[a]-* > PToch. **pæyka-*). See further below.

[20] Class IV, limited to roots containing or formerly containing an *a*-vowel, is a phonological variant of class III, with which it shares the peculiarity of being confined to the middle. The crucial sound change (see *HIEV* 157, note 24, updating earlier formulations) was a mutual assimilation of pre-Toch **a . . .*o* to **å . . .*å* in non-final syllables; cf., e.g., B *wokotär*, A *wakatär* 'bursts open' < PToch. **wåkåtər* < **u̯aĝotor*. The same rule (*pace* Pinault 2009: 480 and Malzahn 389) explains B *onolme* '(living) being' < **anolmo-* < **$h_2$enh$_1$-o-*. A further, hitherto unnoticed case is discussed in note 36.

[21] For stative-intransitive systems in general see *HIEV* (155 ff.). The most archaic continuant of the stative-intransitive aorist in the "Inner IE" languages is the Indo-Iranian "passive" aorist (type 3 sg. *ábodhi*, pl. *abudhran* 'awoke').

illustrates the pattern. The stative-intransitive system of PIE **leit-* 'depart' is partly preserved in Iranian (cf. YAv. perf. ptcp. *iririθuš-* 'dead', pres. *iriθieiti* 'dies') and partly in Tocharian itself. In Tocharian the 3 sg. pres. **lit-ór* was renewed as **lit-ó-tor*, giving pres. III **litætər*.[22] The fourth term, the *h₂e*-conjugation stative-intransitive aorist **loit-*/**l(e)it-*, was transformed into the ablauting class V subjunctive **læyta-*/**ləyta-*[23] (cf. A 3 sg. *letaṣ*(?) 'will fall', verbal abstract *litālune*). Since *lit-*, like *märs-*, *wik-*, and the other roots of this type were historically *aniṭ*, their synchronic *A*-character must be secondary — a detail to which we will return below.

Let us briefly review the situation. We have discussed three facts that appear to bear on the origin of the class V/class I complex:

1) The distributional relationship of the class V subjunctive to the class I preterite is the same as that of the class I subjunctive to the class III preterite. Other things being equal, this would suggest a nucleus of *seṭ* roots with *o*/*e*-ablauting root aorists that split into distinct subjunctive and preterite paradigms.

2) Notwithstanding 1), roots of the type *kärs-* form class I preterites in which the active singular (e.g., B *śarsa*) and the entire middle (*kärsāte*) clearly continue the *e*- and zero-grade forms of "normal" (i.e., *not o*/*e*-ablauting) *seṭ* root aorists.

3) The class V subjunctives of roots of the type *lit- do* appear to go back to aorists with **o* : **e* ablaut — specifically, to aorists of the *h₂e*-conjugation stative-intransitive type. The *A*-character of these roots, however, is almost entirely secondary.

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[22] Note the exact parallel with the development of **nék̂-or* to **nék̂-o-tor* in the class III subjunctive.

[23] Since PIE **i* and **u* gave PToch. **ə*, the actual *-i-* and *-u-* that surface in the ablaut alternations B *-ai-* ~ *-i-* and *-au-* ~ *-u-* (= A *-e-* ~ *-i-*, *-o-* ~ *-u-*) must go back to analogically reconstituted zero-grade diphthongs **-əy-* and **-əw-*, respectively. This notation is only employed selectively here; strictly speaking, the root should be cited as *ləyt-* and the present as **ləytætər*.

The actual forms of *lit-* have been subject to considerable analogical leveling, especially in Toch. B; see below.

It is not obvious how to fit these pieces together. Even if the "paradigm split" framework is valid, at least two historical formations must have gone into the creation of the class V subjunctive and class I preterite as we have them, one corresponding to the inherited morphology of roots like *kärs-*, and the other to the inherited morphology of roots like *lit-*.[24] Indeed, the two profiles are still distinguishable in one particular: only roots of the *kärs-* type, and not roots of the *lit-* type, show palatalization in the preterite active singular and (B only) plural. The contrast can be seen in the rhyming roots *kätk-* (pret. B 3 sg. *śatka*, A *kcäk*/*śtäk*), with a nasal present (cf. above), and *sätk-* 'spread out (intr.)' (pret. B 3 pl. *sätkāre*, A 3 sg. *stäk*), with a present of class III (B **sätketär*, A *sätkatär*).[25] The explanation for the difference, of course, lies in the fact that only the *kärs-* type inherited a root aorist with *e*-grade as its strong vocalism. Despite the otherwise total merger of the two morphological profiles outside the present system, palatalization remained confined to the class of roots where it was etymologically justified.[26]

The outlines of a theory thus begin to emerge. Roots of the *kärs-* type started out with a "normal" active root aorist:

sg.	1	**kérsH-m̥*	pl.	**kérsH-me*
	2	**kérsH-s*		**kérsH-te*
	3	**kérsH-t*		**kr̥sH-ént*

[24] The long-vowel (*lyāka*) and palatalizing (*klyauṣa*) preterite types are not considered here; cf. note 8.

[25] "Roots" in Tocharian, of course, often have a complex history. Whatever else may be said about *kätk-* and *sätk-*, they are not roots in a historical sense, being based on present stems in **-T-sk̂e*/*o-*. For our present purposes, all that matters is that *kätk-* eventually took on the properties of a *seṭ* root with an active root aorist and nasal present, while *sätk-* emulated an inherited stative-intransitive root with a stative-intransitive aorist and deponent present in 3 sg. **-o(to)r*.

[26] Inevitably, there are cases where the profile of the root is not independently determinable. Thus, e.g., the defective root *läm-* 'sit', with palatalization in the pret. sg. (cf. B *lyama*, A *lyäm*, pl. *lamar*), has no present and no clear extra-Tocharian cognates; the only (weak) independent basis for aligning it with the *kärs-* type is the parallelism with *stäm-*/*ṣtäm-* 'stand', cognate with Ved. *stabh-* (aor. *ástambhīt*). In the case of *lu-* 'send', the palatalizing preterite (B *lyuwa*, A *lyu*, pl. *lawar*) is correlated with an abnormal class III present (B *lyewetär*); the true historical character of the root, however, is better seen in the Vedic nasal present *lunā́ti* (Br.) 'cuts off' (perhaps joined by the uncertain Toch. A pres. 1 pl. *lun*[*āmäs*]; cf. Malzahn 854).

. . . while roots of the *lit-* type started out with a h_2e-conjugation stative-intransitive aorist:

sg.	1	**lóit-h_2e*	pl.	**lóit-me-*[27]
	2	**lóit-th_2e*		**lóit-(t)e*[27]
	3	**lóit-e*		**lit-ḗr* (< **léit-r̥s*)[28]

If events had followed the same course as in **g^{u}em-* and **nek̂-* (cf. above), each of these paradigms would have split into a subjunctive and a preterite. In the **kersH-/*kr̥sH-* case, the two daughter categories would presumably have differed in how they treated the *e-* and zero-grade stem variants of their source; the subjunctive, e.g., might have generalized the *e*-grade (> PToch. **śərsa-*), while the preterite might have generalized the zero grade (> PToch. **kərsa-*). In the case of **loit-/*l(e)it-*, the corresponding process would have produced a redistribution of *o*-grade (> PToch. **lœyt-*) and zero grade (> PToch. **ləyt-*). But paradigm split alone cannot explain the *æ*-grade/*o*-grade forms in the subjunctive and preterite of *kärs-* or the stem-final **-a-* in *lit-*. Another factor was clearly at work in these forms — the influence of the *kärs-* and *lit-* types on *each other*. Even as the inherited aorists **kersH-/*kr̥sH-* and **loit-/*l(e)it-* underwent fission "horizontally," spawning two tense-aspect categories in place of one, they fell together "vertically," giving up almost every morphological difference that originally distinguished them.

How would all this have looked in detail? There are many thinkable scenarios, none uniquely identifiable as "best" vis-à-vis the others. To illustrate the range of possibilities, we will explore one possible line of development below.

Our starting point will be the aorist types **kersH-/*kr̥sH-* and **loit-/*l(e)it-* as presented above. Since the subjunctive patterns morphologically as a present in

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[27] See note 14 for the reconstruction with *o*-grade, which will be crucial in what follows.

[28] The form of the 3 pl. ending is discussed in *HIEV* (32 ff.). The replacement of *e*-grade by zero grade in paradigmatically weak position began in the parent language and continued in the early dialectal period.

Tocharian, and since the 1 and 2 pl. of the present were always paradigmatically weak in PIE, we can assume that a very early step in the differentiation of the subjunctive from the preterite would have been the generalization of the zero grade of the 3 pl. to the 1-2 pl. *in the subjunctive only*:

SUBJUNCTIVE				PRETERITE			
sg. 1-2	**kersH-*	pl.	****kr̥sH-***[29]	sg. 1-2	**kersH-*	pl.	**kersH-*
3	**kersH-*		**kr̥sH-*	3	**kersH-*		**kr̥sH-*
sg. 1-2	**loit-*	pl.	****lit-***	sg. 1-2	**loit-*	pl.	**loit-*
3	**loit-*		**lit-*	3	**loit-*		**lit-*

Another early development, favored by the fact that *o*-grade was also the strong vocalism in the nascent class I subjunctive (B *neku*, etc.), would have been the extension of *o*-vocalism from the 1-3 sg. of **loit-*/**lit-* to **kersH-*/**kr̥sH-* — again in the subjunctive only:

SUBJUNCTIVE				PRETERITE			
sg. 1-2	****korsH-***	pl.	**kr̥sH-*	sg. 1-2	**kersH-*	pl.	**kersH-*
3	****korsH-***		**kr̥sH-*	3	**kersH-*		**kr̥sH-*
sg. 1-2	**loit-*	pl.	**lit-*	sg. 1-2	**loit-*	pl.	**loit-*
3	**loit-*		**lit-*	3	**loit-*		**lit-*

. . . whence, after some specifically Tocharian sound changes:[30]

[29] In the interests of conciseness, personal endings are omitted in the abbreviated schemas that follow. Analogical forms are shown in ***bold*** at their first appearance.

[30] assumed, artificially but conveniently, to have happened simultaneously.

SUBJUNCTIVE				PRETERITE			
sg. 1-2	**kærsa-*	pl.	**kərsa-*	sg. 1-2	**śərsa-*	pl.	**śərsa-*
3	**kærsa-*		**kərsa-*	3	**śərsa-*		**kərsa-*
sg. 1-2	**læyt-*	pl.	**ləyt-*[31]	sg. 1-2	**læyt-*	pl.	**læyt-*
3	**læyt-*		**ləyt-*	3	**læyt-*		**ləyt-*

The stage was now set for the extension of **-a-* as a stem vowel from *kärs-* to *lit-*. Since the two root types were otherwise identical in the subjunctive, the subjunctive might have seemed the most natural place for the process to begin. But if **-a-* had spread from subj. **kærsa-* / **kərsa-* to subj. **læyt-* / **ləyt-*, it would probably also have spread — as clearly it did not — to the descriptively identical subjunctives of class I (**næk-* / **nək-*, etc.). It is probably better, therefore, to assume that the extension began in the preterite, where **-a-* is also employed as a union vowel in the 3 sg. of class III (cf. B *neksa*, A *ñakäs* < **-ksat*). Just as pre-Toch. **ñæk-s-t* (< **nēk̂-s-t*) was remade to **ñæk-s-a-t*, 3 sg. pret. forms of the type **læyt-t* [-tst] (**mærs-t*, **wæyk-t*, etc.) were apparently "clarified" to **læyt-a-t* (**mærs-a-t*, **wæyk-a-t*, etc.), thus facilitating the eventual spread of **-a-* to the rest of the preterite and to the subjunctive.[32] The result was that roots of the type *lit-* acquired the trappings of *A*-character without ever having ended in a laryngeal:

[31] with regular non-palatalization of the **l-* before the reconstituted diphthong **-əy-* (cf. note 23 above and Malzahn 2007: 241, note 15).

[32] The suspicion that the 3 sg. was the locus of **-a-* in the class I preterite of *aniṭ* roots is based on the fact, suggestive but not decisive, that the **-a-* which appears in the 3 sg. of class III is excluded from the non-sigmatic 1-2 sg. and 1-3 pl. forms (cf. B 2 sg. *nekasta* < **-ä́sta*, not **nekāsta*, etc.). The "bottom line" is that **-a-* was immensely productive in the preterite, spreading even to the Tocharian reflex of the thematic reduplicated aorist, where it had no etymological *raison d'être* whatever (cf. pret. II A 3 sg. *wawik* (< **-ka*[*t*]), pl. *wawikār* 'drove away'; 3 sg. *lyalyäm*, *lyalymā-ṃ* 'seated (him)'; etc.).

SUBJUNCTIVE				PRETERITE			
sg. 1-2	**kærsa-*	pl.	**kərsa-*	sg. 1-2	**śərsa-*	pl.	**śərsa-*
3	**kærsa-*		**kərsa-*	3	**śərsa-*		**kərsa-*
sg. 1-2	****læyta-***	pl.	****ləyta-***	sg. 1-2	****læyta-***	pl.	****læyta-***
3	****læyta-***		****ləyta-***	3	****læyta-***		****ləyta-***

With the extension of **-a-* to the *lit-* type, the class V subjunctive assumed its classic Proto-Tocharian form. Synchronically speaking, class V subjunctives now corresponded to two kinds of emergent class I preterites: type "Ia" (**śərsa-*, etc.), in which the preterite stem differed from the subjunctive stem everywhere except in the 3 pl.; and type "Ib" (**læyta-*, etc.), in which the preterite stem was the *same* as the subjunctive stem everywhere except in the 1-2 pl. Under pressure to merge Ia and Ib and to eliminate the difference between the 1-2 pl. and the 3 pl., speakers strove to keep the preterite and subjunctive stems distinct.[33] Thus, the *ə*-grade of Ia, though (NB) not its palatalization, was extended to Ib in the preterite singular:

SUBJUNCTIVE				PRETERITE			
sg. 1-2	**kærsa-*	pl.	**kərsa-*	sg. 1-2	**śərsa-*	pl.	**śərsa-*
3	**kærsa-*		**kərsa-*	3	**śərsa-*		**kərsa-*
sg. 1-2	**læyta-*	pl.	**ləyta-*	sg. 1-2	****ləyta-***	pl.	**læyta-*
3	**læyta-*		**ləyta-*	3	****ləyta-***		**ləyta-*

. . . while the *æ*-grade of the Ib 1-2 pl. was generalized to the 3 pl. of Ib and to all of Ia:

[33] In other words, in the course of choosing among existing candidates for analogical extension, speakers tended to favor ablaut variants that minimized homophony between the two major categories (cf. Kuryłowicz's Fifth Law of Analogy: "Pour rétablir une différence d'ordre central la langue abandonne une différence d'ordre plus marginal" (Kuryłowicz 1949: 31)). This is the only sense in which the ablaut of the preterite and subjunctive can be thought of as being "intentionally" different. The bolder proposal (cf. Jasanoff 1983: 57) that *æ*-grade/*o*-grade was introduced into the preterite by a kind of "reverse analogy" to the subjunctive is hard to justify under any intuitively plausible understanding of how analogy works.

SUBJUNCTIVE				PRETERITE			
sg. 1-2	**kærsa-*	pl.	**kərsa-*	sg. 1-2	**śərsa-*	pl.	****kærsa-***
3	**kærsa-*		**kərsa-*	3	**śərsa-*		****kærsa-***
sg. 1-2	**læyta-*	pl.	**ləyta-*	sg. 1-2	**ləyta-*	pl.	**læyta-*
3	**læyta-*		**ləyta-*	3	**ləyta-*		****læyta-***

This completed the formation of the Proto-Tocharian active. No extended discussion is needed of the middle, which, with *ə*-grade/zero grade throughout, can be assumed to have had a relatively uncomplicated development.[34]

The above scenario is, as stated at the outset, only one of many possible variations on a single theme, spelled out in greater than necessary detail to illustrate the kinds of individual changes that the "horizontal split – vertical merger" approach entails. There are points of detail that will probably always remain unclear, such as the relative chronology of the spread of stem-final **-a-* or the exact sequence of the ablaut exchanges between the *kärs-* and *lit-* types in the preterite.[35] Under any imaginable analysis, however, the rise of the class V/class I complex would have been a complicated, multi-step process. Only an extended series of analogical developments could have bridged the morphological gulf that separated the root types **kers(H)-*/*kärs-* and **leit-*/*lit-* at the beginning of their inner-Tocharian history. The eventual fusion of the two types into a

[34] But only *relatively* uncomplicated. The stative-intransitive aorist that underlies the preterite and subjunctive of the *lit-* type was a *h₂e*-conjugation category with no middle of its own; this explains why roots of this profile have active preterites (cf. B *lita*, *marsa*, *wika*; A *līt*, *märs*, *wikā-m*) and (more consistently in Toch. A than Toch. B) active subjunctives (cf. B *laitaṃ*, *mārsaṃ*, but mid. *wikātär*; A *letaṣ*(?), *märsāc* (2 pl. act.), *wekaṣ*). Middle-inflecting subjunctives of the type B *wikātär* beside A active *wekaṣ* (further B *trikātär* 'will be confused' beside A *trekaṣ*, *triwātär* 'will mingle' beside A 3 pl. *triweñc*, etc.) are analogical, influenced by the corresponding deponent presents (*wiketär*, *triketär*, *triwetär*, etc.). See further below.

[35] One might, e.g., consider an alternative account in which the plural set the pace for the singular. The first step(s) would have been the generalization of *æ*-grade/*o*-grade in the plural of the preterite and zero grade in the plural of the subjunctive. Ablaut differences in the singular would then have been leveled accordingly.

unified subjunctive and preterite is an empirical fact. Any alternative scenario, however similar to or different from the one proposed here, must include an account of it.[36]

Astute readers, and our honorand in particular, will have noticed some conspicuous omissions in the above discussion. Nothing has been said about the numerous class V/ class I pairs that do *not* show paradigmatic ablaut, usually because the root has a full vowel everywhere (e.g., B *kaut-*, A *kot-*), or because it shows invariant *æ*-grade in the subjunctive and preterite but some other vocalism in the present or causative (e.g., AB *mänt-* 'stir, destroy': subj./pret. **manta-* < **mœnta-* vs. pres. B 3 sg. *mäntaṃ* < **mäntä́ññäṃ*, A 1 sg. *mäntām*). Cases of the latter type are generically explainable by leveling: *æ*-grade was extended from the singular to the plural in the subjunctive, from the plural to the singular in the preterite, and from the active to the middle everywhere. This is what happened in the case of *mänt-* itself (: Ved. *ma(n)th-* 'churn' < PIE **menth₂-*), a root which, apart from its uniform *-ā-* in the subjunctive and preterite, conforms to the *kärs-* profile.[37] In some verbs the extension of *æ*-grade went further,

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[36] One proposal that should now be definitively discarded is the theory, still defended by me in 1983 (66 ff.), that some or all of the forms of the class I preterite go back to the same proto-formation as the Balto-Slavic *ā*-aorist (cf. OCS *ližǫ* 'I lick', aor. *lizaxъ* < PSl. **lьzaxъ*) and/or the Italo-Celtic *ā*-imperfect/preterite (Lat. *eram*, etc.). Although PIE "**ā*" (i.e., **eh₂*) is now known to have given **å* in Tocharian, the idea of a true Tocharian *ā*-preterite has died hard. The commonly encountered view that the past participles in B *-au* (MQ *-ow*, *-owä*, etc.), obl. *-oṣ* go back to preforms in **-åu̯os-* < **-eh₂u̯os-* (Jasanoff apud Þórhallsdóttir 1988: 206, and later publications) is gratuitous; the forms are more efficiently and elegantly explained on the basis of a pre-Tocharian paradigm

nom sg. (nt.) **-a(u̯)us* > **-awə* ⇒ **-åwə* (contamination with oblique; see below) > *-owä*, *-au*
obl. sg. **-au̯os-* > **-åwås$^{(y)}$-* (**a . . .*o* > **å . . .*å*; cf. note 20) > **-åṣ* > *-oṣ*

Note also B *karyor*, A *kuryar* 'business transaction' < PToch. **kwəryå(wå)r* < **kwəryawor-* < (virtual) **k^{u}rih₂-u̯or-*. The seeming counterexample of the participial type *papaikau*, *-aṣ* (if the *-a-* here is indeed old; contrast A *pāpeku*, not **pāpeko*) is due to leveling in the opposite direction (**-awə*, **-åṣ* ⇒ **-awə*, **-aṣ*). In the parallel *u̯ont*-stems (type *weta*$\overset{\frown}{u}$, obl. *wetānt* 'fighter' < **-au̯ů̯nt*, **-au̯ont-*), the generalization of **-a-* over **-å-* was obviously dictated by the underlying nouns in **-a* (cf. B *weta* 'fight').

[37] Malzahn (755) suggests that A pres. V *māntā-* may have been dissimilated from pres. VI **mänt-nā-*. It is interesting that in this and other roots with generalized *æ*-grade, the preterite and subjunctive consistently show *a*-umlaut in Toch. A (pret. 3 sg. mid. *māntat*, subj. abstr. II *māntlune*) as well as in Toch. B (pret. 1 sg. *mantāwa*, subj. 3 sg. mid. *māntatär*), contrary to the prediction of Cowgill's accent-linked formulation of the rule (cf. note 7). The reason, of course, is that since there was no synchronic alternation in the preterite or subjunctive, there was no basis for the Toch. A "restoration" of **-æ-* (> *-a-*).

creating the appearance of no ablaut at all. Thus, B *klautk*-, A *lotk*- 'turn (intr.), become' is synchronically invariant; the only indication that it once ablauted is the parallel but lexically distinct B *klutk*- 'id.', A *lutk*- 'turn into (tr.)'.[38] *lit*- itself presents interesting peculiarities. Both Tocharian languages, but especially Toch. B, have extended the *æ*-grade allomorph **læyt*- beyond its original sphere in the subjunctive and preterite; cf. subj. 3 pl. B *laitaṃ*, verbal abstract II B *laitalñe* = A *letlune* (beside historically expected *litālune*), B ptcp. *lalaitau* (beside expected *litau*) = A *lāletu*, etc. In Toch. B, **læyt*- has also been introduced into the present, triggering the replacement of class III **litetär* (= A *litatär*) by class IV *laitotär*. The only surviving *ə*-grade forms in Toch. B are the preterite singular (3 sg. *lita* = A *līt*) and the non-reduplicated variant of the past participle (*litau*).

The resulting picture, it may be noted, is entirely compatible with what we know about the accentuation of the class V/class I complex in Toch. B. One of the invaluable contributions of Malzahn (2010) is to have provided accurate accentual information on all the major categories of the Tocharian verbal system. For the ablauting class V subjunctives and class I preterites of roots of the *kärs*- and *lit*- types, the pattern that emerges is clear. Class I preterites have mobile accent, i.e., they observe the so-called "basic rule" of Toch. B accentuation, stressing the first syllable in disyllabic forms and the second syllable in longer forms (cf. 3 sg. *śarsa* vs. 1 sg. *śärsāwa*, mid. 3 sg. *kärsāte*). The corresponding class V subjunctives, on the other hand, mostly have fixed initial accent regardless of word length (cf. 3 sg. *kārsaṃ*, inf. *karsatsi* < **kȓ̊rs*-). But the latter rule has numerous exceptions. Many weak stems are actually mobile; there is a revealing

[38] One historical possibility for this verb is that the original present **KluT-sk̂e/o*- initially gave a pres. III **klutkætər*, which automatically became pres. IV B *klautkotär* when *æ*-grade was generalized. Compare pres. IV B *pautotär*, A *potatär* 'flatters', replacing earlier pres. III **putætər*; the originally ablauting preterite and subjunctive formed a word equation with Ved. *ábodhi*, pl. *abudhran* (cf. note 21). In both cases the extension of *æ*-vocalism to the present may have been encouraged by the existence of nouns with the same ablaut grade (cf. B *klautke*, A *loták* 'manner' and B *pauto*, A *poto* 'flattery'). But despite Adams (1988: 72), Pinault (2008: 433 ff., 579), Malzahn (396 ff.), and other scholars, I see no reason to consider *klautkotär*, *pautotär* or any other class IV presents denominative.

contrast between 3 sg. mid. *käskātär*, with mobile accent, and 2 sg. act. *kāskat* (i.e., **kā́skātä*) with initial accent, from the *kärs-* type root *käsk-* 'scatter'.[39] In roots of the *lit-* type mobile accent is so common as to be virtually regular: cf. *wikātär* (: pres. III *wiketär*), *triwātär* (: pres. III *triwetär*), *k̯ᵘlātär* (: pres. III *kuletär* 'recedes'), *lipātär* (: pres. III *lipetär* 'is left over'), and others. The accentuation of these forms is obviously linked to the fact that the subjunctives corresponding to class III presents were normally *media tantum* in Toch. B (cf. note 34); they had no active paradigm, and hence no strong stem. The straightforward historical interpretation is that *all* ablauting class V subjunctives originally had fixed initial accent on the *æ*-grade strong stem and mobile accent on the *ə*-grade weak stem. In most cases the initial accent of the strong stem was analogically extended to the weak stem, but two sets of forms resisted this development: 1) *käsk-* and a few other roots of the *kärs-* type; and 2) *wik-*, *triw-*, and other roots of the *lit-* type with secondarily medialized subjunctives.

The historical link between *æ*-grade/*o*-grade and initial accent makes it easy to see why the ablauting class I preterite is consistently mobile. The preterite at the outset probably had the same "split" accentuation pattern as the subjunctive, with initial accent in the *æ*-grade forms and mobile accent in the *ə*-grade forms. But *æ*-grade, in markedness terms, was the dominant vocalism in the subjunctive, while it was recessive in the preterite. In the preterite it was the mobility of the 1-3 sg., with *ə*-grade, that took over the paradigm as a whole.[40]

To repeat, there is no incompatibility between these accentual facts and the theory of the origin of the class V/class I complex offered above. We know far more about the synchronic accentuation system of Toch. B than we know about its history. In particular, the origin of fixed initial accent, the distinguishing prosodic characteristic of the class V subjunctive and a number of other verbal categories, is still basically an unsolved

[39] *kätk-*, with 2 sg. act. *kātkat* and 3 sg. mid. *kätkātär*, shows the same pattern.

[40] The near-disappearance of *æ*-grade from the preterite plural in Toch. B would naturally also have favored this development.

problem. The failure of the accent to move one syllable to the right in sequences of the type subj. 1 sg. *kā́rsau-ne* 'I will know him' or 3 sg. *tā́kaṃ-ne* 'erit ei' = 'he will have' could have several possible causes — an ill-understood early retraction process similar to Malzahn's "*pātär* rule" (6), for example, or an obscure exception to the normal Toch. B second-syllable accent rule. Neither possibility can be excluded. What *can* be ruled out, in my view, is a third explanation commonly encountered in the literature — that initial accent, here and elsewhere, is due to a lost reduplication syllable (**käkā́rsau*, **tätā́kaṃ*).[41] Reduplication in Tocharian is regularly found in the past participles of class III preterites (e.g., B *peparku* = A *papärku*), "heavy" class I preterites (e.g., B *papaikau* = A *pāpeku*), and class II (causative) preterites (e.g., B *lyelyamu* = A *lyalymu*), the last of which corresponds to a full finite paradigm in Toch. A (3 sg. *lyalyäm*). In each of these cases the reduplication vowel is a reflex of PIE **o*, generalized from perfect stems in which the *o*-grade of the root was copied into the reduplication syllable. The inherently implausible claim that Proto-Tocharian also had finite perfect forms with *ə*-reduplication,[42] and that these gave class V subjunctives with fixed initial accent, would only be defensible if the *ə*-reduplicated forms were native to the *ə*-grade weak stem of the perfect, where they could have escaped the analogical change to *æ*-reduplication. But this possibility is precisely excluded by our observation above that the locus of initial accent in the subjunctive was specifically in the *æ*-grade/*o*-grade strong stem. Whatever

[41] Cf. note 19. Variants of this idea are very old; recent supporters, other than Malzahn, include Winter (1994: 306 ff.), Rasmussen (2002: 379), and Kim (2007: 188 ff.).

[42] Taking this position, it seems to me, amounts to assuming that Tocharian 1) generalized *o*-reduplication in the perfect participle; 2) analogically extended it from the perfect participle to the participle of the causative preterite/reduplicated aorist (type A *lyalymu*), where there was no *-*o*- in the following syllable; and 3) further extended it to the *finite* forms of the causative preterite (A *lyalyäm*), where there was likewise no following *-*o*-. None of this impossible. But it is hardly credible that *o*-reduplication would have spread in this way without also becoming established in the finite forms of the perfect itself, where at least the strong stem *did* have *o*-grade. Kümmel (2004: 158) is similarly skeptical.

On an entirely different level, it is not at all clear that a reduplication syllable with PToch. *-*ə*- would simply have disappeared. The synchronically isolated *s*$\underset{\breve{a}}{}$*suwa* 'sons', historically the neuter pl. (in *-*u̯ōs*) of the perfect participle corresponding to Ved. *sū́te* 'gives birth to', would seem to be a solid counterexample.

the explanation for the initial accent in class V, it was not the former presence of reduplication.

Where does this leave us? The approach taken above sees the ablauting class V subjunctive and class I preterite as analogically altered reflexes of two inherited formations — the classical root aorist with **e* : *zero* ablaut, largely associated with *seṭ* roots of the *kärs-* type in Tocharian, and the *o*/*e*-ablauting "stative-intransitive" root aorist, largely associated with originally *aniṭ* roots of the *lit-* type. Following a pattern seen elsewhere in Tocharian, each of these split into nascent subjunctive and preterite paradigms. If no other factor had come into play, the outcome would have been two completely different subjunctive-preterite pairs, one associated with *kärs-* and the other with *lit-* roots. Offsetting the effect of the split, however, was the tendency of the two emergent subjunctives and two emergent preterites to assimilate to each other. The ablauting class V subjunctive, in its attested form, owes its *æ*-grade in the singular to the *lit-* type and its *A*-character to the *kärs-* type, while the ablauting class I preterite owes its *ə*-grade in the singular to the *kärs-* type and its *æ*-grade in the plural to the *lit-* type. It is not an ideally simple picture. But compared with earlier attempts, including my own, to make sense of the same material, it posits no otherwise unnecessary morphological entities (e.g., a preterite in *-eh_2- or an unreduplicated perfect), assumes no questionable species of analogy (e.g., a "reverse analogy" process to explain the presence of *o*-grade in the pret. pl.), and upholds the crucial parallelism of the class V/class I complex in synchronically *A*-character roots with the class I/class III complex in non-*A*-character roots. Importantly, it also explains a fact that no previous study has thought worthy of mention: the striking and unexpected amalgamation of the once different *kärs-* and *lit-* types into a single, uniform profile.

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