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Some irregular imperatives in Tocharian

The Indo-European parent language formed imperatives from both present and aorist stems. This state of affairs is still attested in Indo-Iranian (cf. Ved. 2 sg. *kṛnuhí* vs. *kṛdhí* < *kṛ-* 'do') and Greek (cf. 2 sg. *λείπε* vs. *λίπε* < *λείπω* 'I leave'), where imperatives of the two types contrast aspectually; in most of the remaining languages one or the other stem has been generalized. The imperatives of Italic, Germanic and Celtic, the westernmost branches of the family, belong synchronically and historically to the present system (cf. Lat. *fer*, Go. *bair*, OIr. *beir* 'bear!', corresponding respectively to 3 sg. indic. *fert*, *bairiþ*, *berid*). The opposite treatment is found in Armenian: positive commands are expressed by the aorist imperative (e.g., 2 sg. *lik'* 'leave!' (= Gk. *λίπε*)), while the "present" imperative used in prohibitives (cf. *mi lk'aner* 'do not leave') is in reality a reflex of the old present injunctive and not historically an imperative at all.¹

Although the details are less transparent than in some of the other early IE languages, Tocharian seems to have followed the Armenian pattern. As presented by Krause and Thomas (*Tocharisches Elementarbuch* I, 234 ff.), the Tocharian imperative constitutes an independent formal system, essentially coordinate with the systems of the present, subjunctive and preterite. As a purely synchronic statement this description is no doubt correct; it is also clear, however, that while resemblances between the imperative and present stems are rare and accidental, the stem of the imperative normally bears a close relationship to that of the preterite or, less often, the subjunctive. A representative lexical item in this respect is the verb AB *tärk-* 'release', which forms a class VI (*-nä-*) present, a class V (*-ā-*) subjunctive and a class I (*-ā-*) preterite; the imperative (class I) is B *ptārka*, pl. *ptarkaso* [A *ptark*, *ptärkäs*] < CToch. **(pā)tärkā*, **(pā)tärkās(o)*, which shows the same stem-final

¹ See Meillet, *Esquisse d'une grammaire comparée de l'arménien classique*, 2nd ed., 119–21, for a general account of the Armenian imperative. The relationship of the present imperative to the injunctive is discussed in KZ 93, 143 ff. (1979).

**-ā-* as the preterite and subjunctive but no trace of the nasalization found in the present.² Similarly, verbs with class III (*-sā-*) imperatives, such as A *yām-* 'make, do', ordinarily have class III (*-sā-*) preterites as well, with which they share the idiosyncrasy of confining the characteristic element to the middle voice (cf. impv. act. sg. *pyām*, pl. *pyāmās* (i. e., *yām-* + 2 pl. *-s*), like pret. act. 2 sg. *yāmāšt* (i. e., *yām-* + 2 sg. *-št*); but impv. mid. sg. *pyāmtsār*, pl. *pyāmtsāc* (i. e., *yām-* + *-sā-* + 2 sg. *-r*, pl. *-c*), like pret. mid. 2 sg. **yāmtsāte*, pl. *yāmtsāc* (i. e. *yām-* + *-sā* + 2 sg. *-te*, pl. *-c*)).³ In the comparatively infrequent cases where a Tocharian imperative appears to be derived from a present stem, this is usually fortuitous—a mere reflection of the fact that the preterite stem is ultimately derived from the present as well (cf. B causative impv. mid. **pāklautkässar*, pl. *pāklautkässat* (: *klautk-* 'turn'), recalling the causative present stem *klautkās-*, but more immediately based on a class IV preterite in *-ssā-*, itself of imperfect origin). The conclusion to be drawn from these facts is fairly clear: since the Tocharian preterite, and to an extent the subjunctive also, are based on the IE aorist, the formal association of the imperative with the preterite and subjunctive points to an earlier system in which the imperative of the present had been wholly or largely replaced by that of the aorist.⁴

² A few general conventions should be noted. In citing Common Tocharian forms I use the symbol **a* to stand for the vowel ancestral to A *a* and B *e*, and I write **-s(o)* for the ending of the 2 pl. imperative to represent, at least formulaically, the "bewegliches o" that appears in this position in Toch. B. Here and below, the predecessor of the optional imperative prefix AB *p(ā)-* is given for conveniences as **(pā)-*, even though the *Fremdvokal* **-ā-* had almost certainly been syncopated in some environments before the end of the Common Tocharian period. Unless otherwise specified, all imperative forms should be understood as belonging to the second person.

³ Toch. B has similar imperative forms (2 sg. act. *pyām*, pl. *pyāmso*; mid. *pyāmtsar*, pl. *pyāmtsat*), but has replaced the class III preterite **yāmsā-* by the class IV preterite **yāmāssā-* (cf. 3 sg. *yamašsa* (*yāmsa*), 3 pl. *yamašsare* (*yāmsāre* etc.)).

⁴ Not all the Tocharian preterite types, of course, are equally transparent. The relationship of the class III (*-sā-*) preterites to the PIE *s*-aorist is obvious, as is the derivation of the irregular preterite 3 sg. A *lāc*, B *lac* 'went out' from the inherited thematic aorist **h₁ludhét* (= Gk. *ἤλυθε*, OIr. *luid* 'went'). I have argued in IF 88, 55 ff. (1983) that the class I (*-ā-*) preterites are aorists in origin also, and I think it more than likely that the class II (reduplicated) preterites continue the same formation as the Indo-Iranian and Greek reduplicated aorist, albeit with the secondary addition of **-ā-* from class I. The preterites in **-ssā-* (class IV) are discussed below.

The subjunctive types present a less unified picture. It will be shown elsewhere that the class V (*-ā-*) subjunctives and, in part, the class I (athematic) subjunctives derive from aorist formations as well.

Having established these preliminaries, we may now consider the irregular imperatives of the verbs 'to hear' and 'to go', to which the remainder of this paper is devoted.

1. B *päklyauṣ*, pl. *päklyauṣso* [A *päklyoṣ*, pl. *päklyoṣäs*]

The verb B *klyaus-*, A *klyos-* 'hear' forms a class II (thematic) present B 3 sg. *klyauṣäm*, mid. *klyauṣtär* [A *klyoṣtär*] and a homophonous class II subjunctive, both pointing to an apparent thematic stem **kléuse/o-*. The preterite is of the common type in *-ā-* (class I), but with the significant irregularity that the root-final *-s-* is palatalized in both languages (cf. 3 sg. B *klyauṣa* [A *klyoṣ*], pl. *klyauṣäre* [A *klyoṣār*]). Given the close connection of the preterite and imperative systems, it is not entirely surprising that this exceptional palatalization recurs in the imperatives B *päklyauṣ*, pl. *päklyauṣso* [A *päklyoṣ*, pl. *päklyoṣäs*]. The latter forms, however, are peculiar in another respect as well: the absence of final *-a* in B *päklyauṣ* shows that at least in Toch. B, and probably in Common Tocharian as well, the imperative of the root **klyaus-* was built from an unextended stem **klyauṣ-*, rather than from a class I imperative stem of the regular type in **-ā-*.⁵ The lack of an otherwise characteristic theme vowel is a typologically archaic trait in the older IE languages, and even if the palatalization of root-final *-s-* to *-ṣ-* were not itself of interest, the "athematic" structure of *päklyauṣ* would single it out for attention.

A simple way to account for the missing final vowel of *päklyauṣ* would be to suppose that the expected **(pā)klyauṣa < *(pā)klyauṣā* was indeed regularly formed in Common Tocharian, but that its ending was then lost, either within the common period or at an early stage of Toch. B, by a sporadic truncation rule. Such a scenario would not at first glance seem unlikely. Irregularly shortened imperatives, originally proper, no doubt, to the language of peremptory commands, are commonplace in the IE family, a familiar example being Lat. *fac* 'do!', *dūc* 'say!' and *dūc* 'lead!' for regular, and much rarer, *face*, *dūce*, *dūce*. The specific facts of Tocharian, however, rule out an explanation of this kind. First of all, there do not appear to be any other examples of trun-

⁵ Strictly speaking, the absence of stem-final **-ā-* can only be demonstrated for Toch. B, since final **-ā* would regularly have been lost in Toch. A. It is *a priori* unlikely, however, that *päklyauṣ* and A *päklyoṣ* go back to different preforms.

cated imperatives in either language; the only possible exception is the peculiar causative form B *päccauk* (: *tuk-* 'be concealed'), which Krause and Thomas (p.235) regard as phonologically regular, and which belongs in any event to the highly remodeled imperative class based on the IE reduplicated aorist (class II). Second, and more important, it is very doubtful whether the putative unshortened form **(pā)klyauṣā* could ever have existed. A short digression will make this clear.

We have already noted that CToch. **klyaus-* irregularly palatalizes its root-final consonant in the preterite. It is not unique in this feature: other verbs with the same property are B *yärs-* 'honor' (pret. 3 pl. mid. *yirṣānte*), B *ñäsk-* 'desire' (pret. 3 sg. *ñäṣṣa*), B *pänn-* 'stretch' (pret. 3 sg. *piñña*) and A *päs-*, B *päsk-* 'protect' (pret. 2 sg. mid. A *päṣāte*, B *paṣṣatai*).⁶ To these may be added the class IV preterites in B *-ṣṣā-*, A *-ṣā-* < CToch. **-ṣṣā-*, the overwhelming majority of which are formed to causative presents in **-sk-* (cf. B pret. 3 sg. mid. *eṣṣate* to pres. *eṣṣ-* 'instruct', 3 pl. *wināṣār* to *winās-* 'honor'),⁷ and perhaps also the class V preterites in CToch. **-ññā-*, which frequently correspond to class XII presents in *ññ-* (cf. B pret. 3 sg. mid. *kwipeññate* to pres. *kwipeññ-* 'be ashamed').⁸ These "palatalizing" *ā*-preterites are clearly not of very great antiquity, for there is no IE front vowel which regularly yields CToch. **-ā-*. The formation must therefore be secondary; it is probably to be explained along the same lines as another preterital category with palatalizing *-ā-*, the Toch. A imperfect type seen, e.g., in 3 sg. *pälṣā* to pres. *pälkṣṣ* 'shines', or 3 sg. *ṣmā* to pres. *ṣmṣ* 'sits'. The latter forms are transparently unoriginal, as can be seen from a comparison with the imperfect of Toch. B (cf. 3 sg. *palyṣi* to pres. *palkäm*, 3 sg. *ṣami* to pres. *ṣamäm*). The mark of the Toch. B imperfect is *-i-*, probably originally the IE optative marker, which regularly palatalizes the consonant that precedes it. In Toch. A this *-i-*, which was doubtless the phonetic shape of the suffix in Common Tocharian, was mechanically replaced by *-ā-*,

⁶ Krause and Thomas (p.239) also list A *käk-* 'traverse' (pret. 3 sg. *kcäk*) here, but the ablaut and non-palatalization of the final cluster in 3 pl. *katkar* make the real position of this verb very uncertain.

⁷ Toch. A shows the usual replacement of **-sk-* by *-s-* and the corresponding replacement of **-ṣṣā-* by *-ṣā-*.

⁸ Very little is known concerning the original structure of these forms. Since the suffix of the class XII presents is inherently palatalized it is obviously not necessary to attach any special importance to the fact that the *-ññ-* of the class V preterites is palatalized as well. Nevertheless, the parallelism with the verbs in **-sk-*: **-ṣṣā-* suggests that the suffixes **-ññā-* and **-ṣṣā-* have a common explanation.

the typical stem-final element in verb forms with preterital meaning. A similar development, albeit at an earlier date, can probably be assumed for **klyauṣā* and the other palatalizing preterites discussed above. At the beginning of the relevant part of their history, these verbs evidently lacked preterites (i. e., aorists) of any of the ordinary types;⁹ their only past tense forms were the palatalizing imperfects (< optatives) in *-i- regularly formed to all present stems. Because of the semantic overlap of the imperfect and preterite, it must occasionally have come about that forms like **klyauṣi* were used with the value of true preterites. The result was a formal renewal and bifurcation: in its capacity as a surrogate preterite, **klyauṣi* was analogically remade to **klyauṣā*, with the vowel of the class I preterites, while the old form **klyauṣi* subsisted as an imperfect, the function still retained by its unaltered Toch. B descendant. In Toch. A, where -ā- was subsequently introduced into the imperfect as well, the newly established opposition between impf. **klyauṣi* and pret. **klyauṣā* was secondarily eliminated.¹⁰

These facts have a direct bearing on the proposed derivation of Toch. B *päklyauṣ* from an underlying preform *(*pä*)*klyauṣā*. It is clear that an imperative *(*pä*)*klyauṣā* could only have been formed on the basis of the palatalizing ā-preterite **klyauṣā*, which, as we have seen, is of comparatively recent origin. This, of course, is not a negative argument in itself: there is no obvious reason why the creation of the preterite **klyauṣā*, the formation of the derived imperative *(*pä*)*klyauṣā* and the subsequent truncation of *(*pä*)*klyauṣā* to *(*pä*)*klyauṣ* could not all have taken place within the Common Tocharian period. An examination of the other cases in which new imperatives have arisen from palatalizing ā-preterites, however, effectively eliminates this possibility. The largest group of examples is furnished by the causative verbs in *-sk- (A -s-) with class IV preterites and imperatives in *-ṣṣā- (A -ṣā-), the type

⁹ It is easy to see how this situation could have come about. The "roots" *klyaus-*, *yärs-*, *näsk-* and *päs(k)-* all end in an *-s- or *-sk- which originally marked the present stem only; similarly, B *pänn-* owes its -nn- to an old present in *-ny- or *-y- (cf. A *pänw-*). The inherited aorists, if any, of these verbs would thus have been formally quite remote from their presents - a feature which would have made them natural candidates for morphological replacement. In the case of the overwhelming majority of the causatives in *-sk-, of course, no aorists were inherited from the parent language at all.

¹⁰ Slight differences, to be sure, remain between the two formations, the most important being the contrast between the 3 sg. pret. *klyoṣ* and the 3 sg. impf. *klyoṣā*. The retention of the -ā in the latter form, as in the 3 sg. imperfect generally, is doubtless due to the analogical influence of the rest of the paradigm.

illustrated above by B pres. *klautkäsk-*, pret. **klautkäṣṣā-*, impv. 2 pl. mid. *päklautkäṣṣat*. Krause and Thomas (p. 236) list a total of about ten imperatives of this class; remarkably, however, they fail to call attention to the fact that all the forms are middle, not a single active imperative in -ṣṣā- being attested in the Tocharian corpus. Conforming to the same pattern is the primary verb CToch. **päs(k)-* 'protect', which shows only the imperative forms A 2 sg. mid. *ppāṣār*, B 2 pl. mid. *pāṣṣat*.¹¹ Apart from these, the only palatalizing ā-imperatives are from the small type in *-ññā- (class V). Here there are two active forms: A *päkyiñ*, *päkyiññā-ñi* 'teach (me)!', which is surely an innovation compared with its wholly irregular Toch. B counterpart *pokse*; and B *ptärwäññe* 'love!', which, although assigned to class V by Krause and Thomas, shows the special ending -e and is not properly a form in *-ññā- at all. There is thus absolutely no reliable evidence for a 2 sg. in (palatalizing) *-ā in Common Tocharian; all the information at our disposal suggests rather that if the pre-Tocharians had wished to create a 2 sg. form based on the innovative preterite **klyauṣā*, they would have selected the middle *(*pä*)*klyauṣār* rather than the hypothetical active *(*pä*)*klyauṣā*.¹² The "truncation" theory of B *päklyauṣ* must be abandoned.

Krause and Thomas (p. 258) and, following them, most other scholars, derive *päklyauṣ* from a present imperative **kléuse*. This is indeed the "obvious" explanation for the form, since the existence of the class II present B *klyauṣāñ*, *klyauṣtär* [A *klyoṣtär*] would seem to guarantee the legitimacy of assuming a thematic stem **kléuse/o-* for pre-Tocharian. There remains, however, the problem of motivating this development: why, in a language which systematically reached outside the present for its imperatives, should the verb 'to hear' have patterned differently? The exceptional retention of a present imperative would be easy to justify if we could show that the root **kléu-* never formed an aorist at all, or that, if it did, the imperative of the competing present stem **kléuse/o-* was so firmly anchored in usage that its counterpart in the aorist system was unable to dislodge it. Neither conclusion, however, is warranted by the comparative evidence. The existence of a root aorist 3 sg. **kléu-t* is assured for the parent language by Ved. 3 sg.

¹¹ Note that Krause and Thomas' assumption of a B 2 sg. active **pāṣ* (p. 234) is thus unfounded; indeed, **päs(k)-* does not seem to have made active finite forms at all.

¹² Since there is a discernible tendency for middle forms to predominate in the other imperative classes as well, it seems reasonable to speculate that the active imperative was no longer fully productive when the palatalizing forms in *-ā- were created.

ásrot (1 sg. *ásravam*), which stands in a familiar and archaic derivational relationship to the nasal present *śṛṇóti* (< **kl̥-né-u-ti*; cf. Av. *surunaoiti*, OIr. *ro-cluinethar*, etc.). The aorist imperative 2 sg. *klu-dhi* 'hear!' is especially well established, being represented not only by Ved. *śrudhí*, but by Gk. *κλύθι* and Arm. *lur* as well.¹³ No comparably good evidence can be marshalled for the present stem *kléuse/o-* or for its imperative **kléuse*. An extended root **kleus-*, sometimes thought to contain the "desiderative" *-s-, is known from nominal formations around the family (cf. Ved. *śruṣṭi-* 'obedience', OE *hlyst* 'hearing'; AV. *sraoša-* 'hearing, obedience', OCS *sluxz* 'hearing', etc.) and underlies synchronically primary verbs in Tocharian, Germanic (cf. OHG *hlosēn* 'listen'), Baltic (cf. Lith. *kláusti* 'ask', *klausyti* 'listen' (with **k-* for **kl̥-*)), Slavic (cf. OCS *slyšati* 'hear') and Indo-Iranian (cf. Ved. ptcp. *śrósamāṇa-* 'obeying'). The latter forms, which are obviously our chief concern here, constitute a heterogeneous group. OHG *hlosēn* is a class III weak verb, and as such may have developed from an athematic present or perfect middle along the lines set forth in my *Stative and Middle in Indo-European*, ch. 3.¹⁴ Of the Lithuanian forms, *kláusti* (pres. 3 p. *kláusia*) was probably originally athematic as well (see on the semantics W.P. Schmid, *IF* 67, 1–15 (1962)), while *klausyti* ultimately continues an *o*-grade iterative **klous-éje/o-*. OCS *slyšati* (< **klūs-ē-*) belongs to the same morphological type as *viděti* 'see' – a type shown in *SMIE*, § 90, to continue an athematic present formation with "Narten" ablaut.¹⁵ Germanic and Balto-Slavic thus conspicuously fail to offer any support for the thematic stem **kléuse/o-* in the parent language. The sole extra-Tocharian evidence for a thematic present comes from the family of Ved. *śrósamāṇa-*, the precise status of which requires closer study.

The stem *śróša-* 'obey' is attested five times in the Rigveda, three times in the present middle participle *śrósamāṇa-* (RV 3.8.10, 7.7.6, 7.51.1) and once each in the 3 pl. injunctive *śroṣan* (1.68.9) and 3 pl. imperative *śroṣantu* (1.86.5). On casual inspection these forms, which can be phonologically identified with CToch. **klyauštār*, would seem to furnish the decisive argument for an inherited **kléuse/o-*. Two facts, however, militate against uncritical acceptance of the equation *śróša-* =

¹³ The development **kludhi* > Arm. *lur* is discussed in *KZ* 93, pp. 145–6 (1979).

¹⁴ If so, however, the form has been remodeled: the appearance of *-s-* for **-r-* points to an accented root, which cannot be an old feature.

¹⁵ The existence of a class of PIE presents with lengthened grade in the active singular and accented full grade elsewhere was demonstrated in 1968 by Narten, *Pratidānam*, pp. 9–19.

**klyaus-*. First, the distribution of *śruṣ-* as a verbal root is exceedingly restricted: its occurrences in the Vedic corpus are limited to the above five citations, and the status of its Iranian counterpart *sraoš-* is even more marginal (see below). Second, and more important, it is impossible to separate *śrósamāṇa-*, *śroṣan* and *śroṣantu* from another sigmatic form, one whose relevance to the present discussion is only partly obscured by the fact that it belongs synchronically not to the paradigm of *śruṣ-*, but to that of the unextended root *śru-*. This is the hapax *śróṣi* 'hear!' (6.4.7), a regularly formed imperative in *-si* comparable in type to such better attested examples as *yákṣi* 'sacrifice!' (: *yaj-*), *párṣi* 'pass!' (: *pr-*), *sátsi* 'sit' (: *sad-*) and about twenty others. Since the thorough study of the *si*-imperatives by Cardona (*Lg.* 41, 1–18 (1965)) and the parallel work of Narten (*Die sigmatischen Aoriste im Veda*, 45 ff.), it has been generally recognized that these forms are not, as assumed in the earlier literature, displaced 2 sg. indicatives of root presents, but aberrant members of the family of the sigmatic aorist. More specifically, their connections appear to be with the *s*-aorist subjunctive: both Cardona and Narten have called attention to the striking distributional fact that the roots which form *si*-imperatives in the Rigveda usually also show well-developed sigmatic subjunctives, even if the corresponding indicative/injunctive is rare, late or altogether absent. The three roots just cited are typical: beside 31 examples of *yákṣi* (and three further cases of "medialized" *yákṣva*), the Rigveda has eighteen examples of the subjunctive *yákṣa-* (3 sg. *yákṣat*, etc.) but only three instances of the indicative and five of the injunctive;¹⁶ *pr-* furnishes sixteen cases of *párṣi* (and one of remade *párṣa*) beside 21 of the subjunctive *párṣa-*, but not a single representative of the indicative or injunctive; *sad-* provides twelve instances of *sátsi* and the unique 3 sg. subj. *sátsat* (10.83.1), but no further sigmatic forms of any kind. Other roots which show the same pattern include *dṛ-* 'pierce', *vah-* 'convey' and *van-* 'win, grant'.¹⁷ The close distributional relationship between the *si*-imperatives and the *s*-aorist subjunctive explains the currency of the view, readvanced in this century by Szemerényi (*Lg.* 42, 1–6 (1966)), that the imperative

¹⁶ It is perhaps not entirely coincidental that four of the five injunctive occurrences are of the 1 sg. mid. *yákṣi*, homophonous with the *si*-imperative.

¹⁷ The imperative **váṃsi* is not actually attested, having been modernized everywhere in the existing text to *váṃsva* under the influence of the medial subjunctive *váṃsate* (cf. Narten, *Sigm. Aor.*, 46–7).

ending *-si* arose by haplology in pre-Indo-Iranian from a 2 sg. in **-sasi*, and is thus actually of subjunctive origin.¹⁸

It is easy to see the significance of these facts. The existence of the imperative *śróṣi* virtually compels us to assume a sigmatic subjunctive **śróṣa-* for some stage of Indo-Iranian. No such subjunctive, however, is actually encountered in the Rigveda; instead, we find five occurrences of a derivationally isolated stem *śróṣa-* serving in the role of an ordinary present. Under the circumstances it is difficult to escape the conclusion that this present is itself the missing subjunctive corresponding to *śróṣi*, and that its loss of modal value was an innovation of the pre-Vedic period. This view is not entirely new. The inseparability of *śróṣi* and *śróṣa-* was already seen by Renou (*BSL* 38, 84 (1937)); Narten, while avoiding a definite position on *śróṣamāṇa-* and *śroṣantu*, accepts a subjunctive reading for *śroṣan* at 1.68.9, and cites the creation of the present *hāsate* ‘races’ (< **leaves behind*, ultimately from *hā-* ‘leave’) as a parallel for the development of an indicative in *-sa-* from a weakened subjunctive (*op. cit.*, 260–1, 285–6).¹⁹ An even closer parallel is furnished by the root *nás-* ‘reach’ and its *s*-extended variant *nakṣ-*: the former is traditionally said to underlie the *si*-imperative *nakṣi* (cf. *śru-*: *śróṣi*), while the latter has hardly any existence at all apart from the thematic subjunctive-present *nakṣati* (cf. *śruṣ-*: *śróṣa-*).²⁰ Other, in part later, examples of presents based on sigmatic subjunctives are discussed by Narten, pp. 42–3.

The hypothesis that the present *śróṣa-* continues an old subjunctive, though based entirely on internal Vedic evidence, receives a measure of support from Iranian. The sole *s*-extended verbal derivative of the root *srauu-* in Gathic Avestan is the 1 sg. subj. mid. *səraoṣānē* (Y. 50.4), rendered ‘ich will mich vernehmen lassen’ by Humbach (*Die Gathas des Zarathustra* I, 147) and, rather more plausibly, ‘I shall obey’ by Insler (*The Gāthās of Zarathustra*, 99). Strictly speaking, the ending *-ānē* is ambiguous, since it affords no basis for distinguishing between a sigmatic subjunctive of the type discussed above and the “long-vowel”

¹⁸ The idea is in fact found as early as Benfey’s Sanskrit grammar of 1852 (*Handbuch der Sanskritsprache. Erste Abteilung: Grammatik*, p. 397).

¹⁹ Further evidence for a subjunctive **śróṣa-* is furnished by the ritual cry *śrausaṣ* ‘let him hear’, which shows the *pluti*-lengthening of pre-Vedic **-au-* to **-āu-* (cf. Hoffmann, *ZDMG* 110, 176 f. (1960)).

²⁰ In the context of the complete *averbo* of the root *nakṣ-* it is clear that the perfect *nanakṣ-*, which appears four times in the Rigveda, is a secondary abstraction from the present.

subjunctive that would have been regular beside a thematic indicative **sraoṣa-*. Nevertheless, it is striking that the only Gathic form remotely comparable to Ved. *śróṣa-* is in fact a subjunctive, and tempting to account for this in a principled way by deriving both from an Indo-Iranian subjunctive stem **srauša-*. Curiously, the originally modal **srauša-* appears to have given rise to a middle participle in Iranian as well as Indic: such, at any rate, is the testimony of YAv. *sraoṣāmnō* (V. 13, 17; v.l. *sraēṣāmnō*), taken by Kellens (*Le verbe avestique*, 396) to represent a small but well-defined class of “participes subjonctifs aoristes”.

The above argument has the apparent disadvantage of requiring us to abandon the otherwise attractive comparison of *śróṣamāṇa-*, etc. with CToch. **klyauštār*. Yet, somewhat surprisingly, perhaps, this is not in fact the case. It is universally recognized that the indicative of the PIE *s*-aorist is continued in the Tocharian *s*-preterite (class III), a formation conventionally illustrated by the preterite of the verb ‘to ask’ (cf. B 1 sg. *prekwa* [A *prakwā*], 3 sg. *preksa* (*prakās*) ‘asked’ (: Ved. 3 sg. *ápraṭi*)).²¹ Less well-known, but almost as clear, is the fact that the subjunctive of the *s*-aorist is preserved in the thematic *s*-presents of Krause and Thomas’ class VIII (cf. B 1 sg. *preksau*, 3 sg. *prekṣām* [A *praksam*, *prakṣ* < **prakṣāṣ*]). The *s*-presents are of course productive in Tocharian; this is especially true in Toch. A, where they have mechanically replaced the *sk*-presents, mostly causative, which Krause and Thomas assign to class IX. Nevertheless, certain distributional facts make it possible to detect the original locus of the type in the *s*-aorist subjunctive. The association of *s*-presents with *s*-preterites, seen, e.g., in the example cited above, is typical of both causatives and non-causatives (cf. Krause-Thomas, 206–9), and difficult to account for save by assuming a formal link between the two sigmatic categories.²² Of decisive importance is the small lexical group consisting of *nāk-* ‘destroy’, *nām-* ‘incline’, *pāk-* ‘ripen’ and *tsāk-* ‘burn’. These roots, all of which have good IE etymologies, correspond to verbs with thematic presents and, in three cases out of four, sigmatic aorist systems in Vedic (cf. *násati*, *-te* ‘is lost’ (no *s*-aor.); *námati*, *-te* ‘bends’, *s*-aor. subj. 1 sg. *namṣai*, 3 pl. *namṣante*

²¹ Here and below we shall retain the traditional term “*s*-preterite”, even though the characteristic consonant is sometimes absent from the middle and is invariably confined to the 3 sg. in the active.

²² The possibility that the *s*-presents somehow continue an early form of the *s*-preterite (or *s*-aorist) *indicative* is ruled out by the fact that the latter category is not, and seems never to have been, fully sigmatic. Cf. note 28.

(indic. 3 sg. *anān* (K)); *pácati*, *-te* 'cooks', *s*-aor. subj. *páq̄sat*; *dáhati*, *-te* 'burns', *s*-aor. 3 sg. *ádhāk*, *si*-impv. *dháq̄si*). The pattern is an archaic one, being well-known from pairs like *váhati* 'conveys': *ávāṅ/váq̄sat*, *jáyati* 'conquers': *ájaiḥ/jéq̄sat* or Gk. *σπένω* 'I make a drink-offering': aor. *ἔπεισα*, subj. 1 pl. *σπέισομεν*. It is a remarkable fact that all three of the formations illustrated in these examples – thematic present, *s*-aorist indicative and *s*-aorist subjunctive – recur in Tocharian. The thematic presents of *nāk*-, *nām*-, *pāk*- and *tsāk*- are preserved in the class III deponent subjunctives B 3 sg. *nketār* [A *nkatār*], *nmetār*, vb. abstr. *pkelñe* [*pkalune*], 1 sg. *tskemar* [vb. abstr. *tskalune*], pointing respectively to stems **nēk-o-*, **ném-o-*, **pék^h-o-*, **dhég^h-o-* (cf. *SMIE*, pp. 36–7). The corresponding *s*-aorist indicatives appear in the class III preterites B 2 sg. *nekasta* (3 sg. mid. *neksate*) [A 3 sg. *nākās* (mid. *nakāt*)], 3 pl. *nemar(-neś)* [A ptc. *nanmu*], ptc. *papeku/pepeku* [A 3 sg. mid. *pakāt*], 3 pl. *tsekār* (1 sg. mid. *tseksamai*) [A 3 sg. mid. *tsakāt*]. Given these two correspondences it is impossible to deny a third – the identity of the transitive *s*-presents B 3 sg. *nakšām* [A *nkāš*], *namšām* [**nmāš*], *pakšām* [**pkāš*], *tsakšām* [**tskāš*] with the Vedic *s*-aorist subjunctives **nákša-*, *námša-*, *pákša-*, **dhákša-* (cf. *dháq̄si*). From a functional point of view the development of aorist modal forms to present indicatives may seem a counterintuitive change, but Tocharian historical grammar affords many parallel cases of indicative stems which have acquired modal value, and vice versa.²³ Formally the match is perfect: only the absence of initial palatalization, easily explained analogically, stands in the way of a direct derivation of the Tocharian forms from PIE subjunctives **nēk-se/o-*, **ném-se/o-*, **pék^h-se/o-*, **dhég^h-se/o-*.

The implications for the verb 'to hear' are straightforward. If the Common Tocharian present stems **nākš-*, **nāmš-*, **pākš-*, **tsākš-*, etc. in fact continue old *s*-aorist subjunctives, there is every reason to favor a similar analysis for the present stem **klyauš-*. The equation of CToch. **klyauš-* and Ved. *śrósa-* is perfectly valid, but the PIE **kléuse/o-* to which it points was the stem not of a present indicative but of a subjunctive. There is no basis for deriving CToch. **(pā)klyauš* from a preform **kléuse*: the simple fact is that a PIE imperative of this

²³ Cf. note 4 and the discussion of the imperfect above. The prevailing transitive and/or causative value of the *s*-presents, which recurs in the corresponding *s*-preterites, recalls the function of the sigmatic aorist in Greek examples like *ἔστησε* 'set up (tr.)' vs. *ἔστη* 'stood (intr.)' or *ἔρθε* 'stirred up, raised (tr.)' vs. *ἔρτο* 'arose (intr.)'. The extent to which such pairs preserve an inherited feature requires further study.

form never existed, and it is almost inconceivable that a secondarily created **kléuse* would have survived in a language where every inherited thematic imperative built to a thematic present, including the common forms **bhére* and **áge*, was lost without trace.²⁴ Clearly, a better explanation is needed.

What I would like to propose here is that **(pā)klyauš* is to be directly equated with Ved. *śrósi*, and that both continue a PIE *si*-imperative **kléusi*. This suggestion could not have been seriously entertained until a few years ago, for it was long the standard view that the imperatives in **-si* were an innovation confined to Indo-Iranian. At the First East Coast Indo-European Conference, however, I presented independent evidence for the existence of such forms in Celtic. In particular, I tried to show that the irregular Old Irish imperatives *tair* 'come!', *tog* 'choose!', *no-m-ain* 'spare me!', *aic(c)* 'invoke as surety!', **foir* 'help!' and *at-ré, com-éir* 'arise!', which have traditionally been taken to continue *s*-aorist injunctives **to-ar(e)-ink-s-s*, **to-geus-s-s*, **aneg-s-s*, etc. (cf. Zimmer, *KZ* 30, 118 f. (1890)), could now, thanks to Warren Cowgills's brilliant demonstration of early final *i*-loss in Insular Celtic (*Flexion und Wortbildung*, 40–70), be far more naturally derived from underlying *si*-imperatives **to-ar(e)-ink-si*, **to-geus-si*, **aneg-si*, etc. Important support for the new analysis came from the fact that all six of the Old Irish verbs in question have *s*-subjunctives in (original) **-se/o-*, and that in two cases the Celtic forms could be directly compared with a *si*-imperative and *s*-aorist subjunctive in Vedic (cf. impv. *tair*, *s*-subj. 3 sg. *·tair(i)*: Ved. impv. *nakši*, pres. (< subj.) 3 sg. *nákšat(i)*; impv. *tog*, *s*-subj. 3 sg. *do-gó*: Ved. impv. *jósi*, subj. 3 sg. *jósat(i)*). In the period since our 1982 meeting I have come to believe that *déicce* 'see!' < **di-en-k^heis-si* is a further example of this type.²⁵

²⁴ An imperative built to a thematic aorist, however, survives in A *plác*, pl. *pálcās* 'go out!' < **(h₁)ludhéló-*; cf. note 4.

²⁵ To be sure, there are minor differences between the Old Irish forms and their Vedic counterparts. Like all the inflected forms of *·ic(c)*, the imperative *tair* and subjunctive *·tair(i)* show the generalization of the zero-grade **h₁nek-* at the expense of the more original full-grade **h₁nek-*. In addition, the imperatives *tair* and *tog* are not, strictly speaking, phonologically regular, since pre-Old Irish **to-ar(e)-is(s)* and **to-gōs(s)* would normally have been expected to yield **tairi* and **togo*, *-a*, respectively. The apparent truncation of these forms has the same explanation as the irregular shortening frequently seen in the 3 sg. of the *s*-subjunctive, which in effect forms part of the same paradigm: in both the imperative and subjunctive the regular change of **-iss-*, **-gōss-*, etc. to **-iss-*, **-gōss-* in unstressed medial syllables was analogically generalized to final syllables as well. The absence of similar shortening in *déicce* < pre-Irish

Once the existence of *si*-imperatives is admitted for the parent language, a plausible case can be made for their survival in other IE traditions as well. In Hittite, for example, a number of *hi*-conjugation verbs have imperatives in *-i*. Not all of these forms are to be analyzed in the same way; in some, such as *iyanni* 'march!' and *uppi* 'send!', the *-i* is clearly a component of the stem (cf. sup. *iyanniwan*, pres. 1 pl. *uppiweni*), while in others, notably including the very common *paḥṣi* 'protect!', it apparently has the status of a desinence. I am indebted to H. Craig Melchert for the interesting observation that two other archaic imperatives of the *paḥṣi*-type likewise end in the phonological sequence *-ši*: the forms in question are *eši* 'settle, possess!', which occurs once in the Middle Hittite Madduwattaš text, and *ešši* (*e-iš-ši*) 'perform!', found in the Hittite-Akkadian bilingual of Ḫattušiliš I, where it is probably a modernization of **i-iš-ši* in the Old Hittite original.²⁶ However these "*ši*-imperatives" are to be explained, it is hard to believe that they can be wholly independent of the *si*-imperatives of Indo-Iranian and Celtic. In the case of *paḥṣi* in particular, it is significant that the Rgveda attests two instances of an isolated subjunctive *pāsa-* (3 sg. *pāsati*, 10. 17. 4; 3 du. *pāsataḥ*, 7. 34. 23), so that it is even possible to regard the Hittite form as the exact cognate of a virtual Vedic **pāsi*.²⁷

Tocharian, I submit, is simply another example of an IE language group that has preserved a historical relic of the imperatives in **-si*. Proto-Indo-European seems to have had a series of subjunctives in **-se/o-*, typically coupled with *si*-imperatives and often, though not always, associated with *s*-aorist indicatives as well. One root which never developed an *s*-aorist indicative, but which apparently did have a sigmatic subjunctive and imperative, was **kleu-* 'hear', the *s*-subjunctive and *si*-imperative of which are respectively guaranteed by the twin equations Ved. *śróṣa-* = CToch. **klyauṣ-* and Ved. *śróṣi* = CToch. **(pā)klyauṣ*.²⁸ The latter form evidently served as the basis for the crea-

²⁶ **-kēš(i)* is probably due to the early elimination of the *s*-subjunctive in this verb. Cf. Thurneysen, *A Grammar of Old Irish*, 392-4.

It should be noted that the existence of *si*-imperatives in Old Irish in no way compromises the theory that derives these forms by haplogy from 2 sg. subjunctives (see above); it does, however, require us to assume PIE **-sesi*, rather than Ilr. **-sasi*, as the pre-haplogized sequence.

²⁷ So Oettinger, *Die Stammbildung des hethitischen Verbums*, p. 59.

²⁸ The possibility of a connection between *paḥṣi* and the Vedic *si*-imperatives is explicitly rejected by Oettinger (*op. cit.*, p. 211), who gives no reason for his opinion.

²⁹ Under these circumstances it is legitimate to ask whether the stem *kléuse/o-* ought properly to be described as an "*s*-aorist" subjunctive. The question is partly one of ter-

tion of 2 pl. **(pā)klyauṣs(o)*; **(pā)klyauṣ* and **(pā)klyauṣs(o)* then developed regularly to the attested forms, B *pāklyauṣ*, *pāklyauṣso* and A *pāklyoṣ*, *pāklyoṣās*. Note that under this analysis there is no need to invoke a process of sporadic shortening, as required by the hypothetical derivation of **(pā)klyauṣ* from **(pā)klyauṣā*, or to explain the anomalous retention of an innovated present imperative, as required by the "standard" derivation from **kléuse*. The crucial assumption is that the *si*-imperatives were a PIE category; so long as there is no *a priori* reason to reject the preform **kléusi* it is clear that the *si*-imperative theory provides a simpler and more direct account of the facts than any other.

As a postscript to the above, it may be of interest to note the existence of one further form that bears on the legitimacy of assuming a PIE **kléusi*. In the poorly understood Messapic language there survive four inscriptions that begin with the sequence KLAOHIZIS or KLOHIZIS; that this is to be read as two words KLAOHI ZIS is shown by a

minology. The *s*-aorist in its classically reconstructed form was clearly a creation of the IE dialectal period, one of the most striking indications of this being the fact that Hittite and Tocharian agree in confining the sigmatic element, at least in the active, to the 3 sg. At the level of the still more or less homogeneous parent language, the *s*-aorist is probably best envisaged as a partly sigmatized root aorist, marked by an element **-s-* in the 3 sg. active indicative and in the middle and subjunctive, but lacking any overt tense sign in the rest of the active indicative and in the optative. Such an inflectional pattern can most easily be explained by assuming an early blending of two distinct categories, whereby certain forms originally proper to a desiderative or inchoative *s*-present were prehistorically introduced into the paradigm of an obsolescent type of root aorist. According to this scenario **kléuse/o-* and a "normal" *s*-aorist subjunctive like **ueǵh-se/o-*, along with their *si*-imperatives, would both have originated as the subjunctives corresponding to presents of the type **kléu-s-t(i)* and **ueǵh-s-t(i)*; the only difference between the two would have arisen when **ueǵh-s-t(i)* and **ueǵh-se/o-* were incorporated into the aorist system (where **ueǵh-s-t* eventually triggered the "classical" *s*-aorist **ueǵh-s-η*, **ueǵh-s-s*, **ueǵh-s-t*, etc.), while **kléu-s-t(i)* and its subjunctive remained presential, ultimately giving rise to the scattered derivatives of the "secondary root" **kléus-*. Further examples of *s*-extended roots with the distribution of **ueǵh-s-* are legion; for a close parallel to the type seen in **kleu-s-* compare **peh₂-s-* 'protect', where the subjunctive **peh₂-se/o-* (: Ved. *pāsati*) and *si*-imperative **peh₂-si* (: Hitt. *paḥṣi*) lack a corresponding *s*-aorist indicative in the daughter languages, while the underlying sigmatic present subsists in hitt. *paḥṣ-*, OCS *pasq* 'I graze' and, indirectly, Lat. *pāstor* 'shepherd'. The essential identity of the two subjunctive types in **-se/o-* is reflected in the use of the term "sigmatic subjunctive" to refer to **kléuse/o-* above. A detailed examination of these formations, and the conditions under which sigmatic aorists were created and extended within Proto-Indo-European, will be undertaken in a separate study.

fifth inscription that begins simply KLAΩHI.²⁹ All five texts deal with legal matters, and there can be no doubt that the expression is formulaic in character. Since the suggestion was originally made by H. Krahe in 1936 (*IF* 54, 83–7) it has been usual to regard KLAΩHI ZIS as the Messapic counterpart of the phrase *audi Iuppiter* which introduces the text of an early Roman treaty (Livy I 24, 7). As an imperative meaning ‘hear!’, KLAΩHI is ambiguous: the obvious comparison with Ved. *śróṣi*, made originally by Deecke (*Rh. Mus.* 40, 142), is accepted by Pokorny (*IEW*, 607), but Haas (p. 204) prefers a derivation from a present imperative **kleuḡe*. Our lamentable ignorance of Messapic phonology makes it impossible to decide between the two alternatives;³⁰ nevertheless, it is self-evident that a preform **kleusi* < **kléusi*, supported by the comparative evidence discussed above, is morphologically far preferable to **kleuḡe*, which presupposes a tense stem found nowhere else in Indo-European. For the present it is probably safe to say that there is a distinct possibility – albeit nothing more – that KLAΩHI can take its place beside *śróṣi* and **(pā)klyauṣ* as an unlooked for, but welcome, *tertium comparandum*.

II. B *paṣ*, pl. *pcīso* (*cisso*) [A *piṣ*, pl. *pic* (*picās*)]

The verb ‘to go’ is suppletive in both Tocharian languages. In Toch. B the present and subjunctive are made from a stem **yā-* or **yān-*, which Krause and Thomas assign to class I (cf. 3 sg. *yaṃ*, 3 pl. *yanem*); the finite forms of the preterite, nominally assigned to class III, are based on a root or roots beginning with *m-* (cf. 3 sg. *masa*, pl. *maitar*). In Toch. A the stem **yā-* underlies a class I present as well (cf. 3 sg. *yāṣ*, pl. *yiñc*), but the agreement with Toch. B does not extend to the subjunctive or preterite, which are instead built from a root *kālk-* (cf. subj. 3 sg. *kalkaṣ* (class V), pret. 3 sg. *kālk* (class I)). These discrepancies are easily explained. CToch. **yā-* is ultimately a reflex of PIE **(h₁)ei-* ‘go’, the archaic present inflection of which is guaranteed by the match between Ved. 3 sg. *éti*, 1 pl. *imáh*, 3 pl. *yánti* and Gk. εἶσι,

²⁹ The texts are conveniently available in O. Haas, *Messapische Studien* (1962), where, however, the author’s “translations” testify more to the fertility of his imagination than to any dramatic advances in the slow progress of Messapic philology.

³⁰ The only conclusion that can be said to emerge from Haas’ discussion of IE **s* in Messapic (pp. 191–3) is that the fate of this phoneme is utterly obscure.

ἔμεν, ἴασι.³¹ The distribution of this root was clearly restricted: while the preforms **(h₁)éi-ti*, **(h₁)i-mé*, **(h₁)i-énti*, etc. rank among the safest reconstructions in IE historical grammar, the absence of any strong comparative evidence for the other tense stems makes it unlikely that **(h₁)ei-* formed a perfect or aorist in the parent language. The need to provide the present **yā-* with a preterite eventually forced the speakers of pre-Tocharian to resort to suppletion. Different roots were selected for this purpose in the two nascent dialects; in Toch. A the use of *kālk-*, which seems originally to have meant ‘follow’ (this is the meaning of B *kalāk-*), was extended to create a new subjunctive as well.

The corresponding imperative system is wholly irregular. All the attested forms presuppose a CToch. 2 sg. **yāṣ* and 2 pl. **yāc*; accompanied by the particle **p(ā)-*, these yielded preforms containing the sequence **pyā-*, which developed to *pi-* in Toch. A and **pā-*, whence accented *pa-*, in Toch. B.³² The plural form **(p)yāc*, marked by the synchronically opaque ending *-c*, was analogically recharacterized, perhaps independently, in both languages: Toch. A created the “long” variant *picās* by adding the productive 2 pl. ending *-ās*; Toch. B, following the same procedure, extended **pāc* to **pāciso* (> *pcīso*) and abandoned the historically expected **pac*. Neither of these remodelings seriously obscures the etymology of the underlying **yāc*, which is obviously to be derived, along with Ved. *itá* and Gk. ἴτε, from PIE **(h₁)i-té*. The verb ‘to go’ thus confronts us with a clear, if isolated, example of an imperative based on a present stem. The reason for its survival is doubtless that at the time when other present imperatives were being replaced by a competing aoristic forms, the Tocharian continuant of **(h₁)ei-* still furnished only presential derivatives.

The 2 sg. **yāṣ* is much more problematic. Although the **-ṣ* naturally recalls the final consonant of **(pā)klyauṣ*, the possibility that this form continues a *si*-imperative **eisi* (or rather **isi*, with analogical **i-* for **ei-*) is very remote. Neither in Tocharian nor in any other IE language is there even fragmentary evidence for an *s*-extended stem from which a *si*-imperative might have been derived. Structurally, the **-ṣ* of **yāṣ*, unlike that of **(pā)klyauṣ*, is simply a 2 sg. desinence – a rare one,

³¹ The example of A *ytār*, B *ytārye* ‘path’ (: Lat. *iter*) shows that **yā-* was the regular reflex of PIE anteclassical **(h₁)i-* in Common Tocharian. In addition, the 3 pl. **(h₁)i-énti* would initially have yielded CToch. **yāñc*.

³² The B form *cisso*, for phonologically regular **ycisso*, is presumably a “decompound” made by stripping the attested *pcīso* of its synchronically optional prefix *p(ā)-*.

to be sure, but one which recurs in the irregular Toch. A form *paš* 'give!', pl. *pac*.³³ The fact that 'to go' and 'to give', the only two Tocharian verbs to show this ending, are also the only verbs which preserve the archaic imperative plural in *-c* < **-te*, is surely not accidental.³⁴ An ideal account of **yäs* would derive the **-š* from a PIE 2 sg. desinence, preferably one associated with an athematic paradigm in which the corresponding 2 pl. ended in **-te*. The obvious candidate for such an ending is the primary 2 sg. in **-si*; unfortunately, it is very difficult to see how **eisi* 'you go' (= Ved. *éši*) or its replacement **isi* could have developed into a form with imperative meaning.³⁵

The problem can be approached from a different point of view. We have seen that the 2 pl. **yác* can be derived without difficulty from PIE **(h₁)i-té*. We also know the imperative form that functioned as the 2 sg. counterpart to **(h₁)i-té* in the parent language: this was **(h₁)i-dhí*, the PIE status of which is assured by Ved. *ihí*, Gk. *ἴθι* and Hitt. *ūt (i-it)*.³⁶ In context, it is natural to wonder what the phonological outcome of **(h₁)i-dhí* would have been in Tocharian. Under the usual assumptions, we might have expected that **-dh-* would have fallen together with **-t-*, as it did in most other environments, and that the resulting stop (we may write **-T-*) would have undergone palatalization to **-c-*. The end result, after the loss of the final vowel and the change of **i-* to **yā-*, would have been CToch. **yác*, indistinguishable from the **yác* of the 2 pl. Not all the stages in this development, however, are equally certain. In particular, it is important to note that there are no actual examples for the change of **-VTi* to **-Vc(i)* (where *V* = any vowel), the presumed palatalization of **-T-* to **-c-* in this position being a mere conjecture on the strength of the known development of **-T-* to **-c-* before **-e*. I would like to suggest that, reasonable as it may seem, this conjecture is false, and that there is positive evidence to show that the regular Tocharian reflex of **(h₁)i-dhí* was not **yác* but **yäs*, the form which is actually presupposed by our data.

³³ The structure of these forms is otherwise quite obscure, as is that of the corresponding B imperatives *pete*, pl. *petes*.

³⁴ Needless to say, the *-c* of CToch. **yác* 'go!' and A *pac* 'give!' has nothing to do with the *-c* which serves as the normal 2 pl. middle ending in Toch. A; the latter almost certainly goes back to PIE **-dhe* or **-dhye*.

³⁵ Still less likely is van Windekens' suggestion (*Le tokharien* II, 2, p. 246) of an infinitive **isi* comparable to Lat. *īre*.

³⁶ In *KZ* 93, 148-9 (1979), I have further suggested that the Armenian present "cohortative" (e.g., 2 sg. *berijir*, pl. *berijik*, 'may you carry') is to be derived from a syntagma of the type **bheredh₁ōi idhi*, pl. **bheredh₁ōi ite(i)*, lit. 'go to carry!'

The palatalization of pre-Toch. **-T-* to **-c-*, in my view, was in certain environments blocked by an earlier rule which, like the Greek change of 3 sg. τίθητι (Doric) 'puts' to τίθησι (Attic-Ionic) or 3 pl. ἐντί (Dor.) 'are' to εἰσί (Att.-Ion.), converted **-T-* to **-s-* before **i*. The exact conditions under which this assibilation took place are difficult to determine; the clear cases involve sequences of the form **-VTi*, in which the **i* palatalized the **-s-* to **-š-* before regularly disappearing in word-final position. Other than the imperative in *-š* itself, which is common to both languages, there are two relevant examples, both confined to Toch. A. We shall examine these below.

The Toch. A ablative ends in *-(ā)š*, which is added to the underlying oblique case-form of the singular or plural (cf. *lāntās* : *wāl* 'king', *āsānās* : *āsān* 'throne', pl. *wramnās* : *wram* 'thing'; further examples in Krause-Thomas, 87-9).³⁷ No acceptable etymology has ever been found for this morpheme: although there are many final syllables beginning with **-s-* which could have yielded Toch. *-š* (e.g., **-se*, **-si*, **-set*, **-sim*), none can plausibly be associated with ablative meaning in the parent language.³⁸ The appropriate extra-Tocharian comparison, in my view, is with the Hittite singular and plural ablative in *-(a)z* (e.g., *antuḫšaz* 'from a man, from men' (stem *antuḫša-*) and the Armenian ablative singular in *-oy* (e.g., *i getoy* 'from a river' (*o*-stem)) and *-ē* (e.g., *i banē* 'from speech' (*i*-stem), *y-anjnē* 'from a person' (*n*-stem)), all of which can be traced to a PIE "adverbial" case-form in **-ti*. The element **-ti* seems originally to have been added to the endless locative, as in Hitt. *É-irza* (= **pirz(a)*) 'from a house' (cf. loc. *É-ir*, *É-ri* (= **pir*, **piri*)), or the adverbs *andurza* 'inside' (cf. *andur* 'id.') and *dapūšza* 'alongside' (cf. *dapūwaš* 'side'). These forms, however, are relics; the regular Hittite ablative is the thematic type in *-az* < **-o-ti*, which had already spread to the consonant stems by the beginning of the historical period and which corresponds exactly to the non-productive Armenian type in *-oy*.³⁹ The more common Armenian ending, *-ē*, is from **-eti* via **-ey(i)*, with the same phonological treatment as in 3 sg. *berē* 'carries' < **bhereti*. The source of the vowel that precedes the **-ti* in this sequence is not entirely clear; one possibility, suggested by the PIE

³⁷ Rare alternants are *-āš* and *-aš*, on which see below.

³⁸ Van Windekens' connection of the ablative ending with A *šū, ši* 'hither' (*op. cit.*, II, 1, pp. 255-6) is unsatisfactory at best, and a blatant case of *obscurum per obscurius*.

³⁹ See *MSS* 31, pp. 123-8 (1973) for an account of the competing variants of the Hittite ablative. The derivation of *-z* from **-ti* is guaranteed by the Luvian ablative-instrumental in *-ati*.

preverb/adverb **éti* (= Ved. *áti*, Gk. *ἔτι*), literally 'from (= beyond) this', is that *-*eti* was originally the variant of *-*oti* proper to stressed pronominal stems (cf. further Hitt. *kēz* and *apēz*, ablatives to *kā-* 'this' and *apā-* 'that', respectively), and that from such forms it spread to nouns, typically athematic, in which the weak cases were accented.⁴⁰

The proposed sound law allows a direct equation of Toch. A *-(ā)š* with the ablatives of Hittite and Armenian. A trace of the thematic ending *-*oti* survives in the isolated *āñmaš*, abl. sg. of *āñcām* 'self, soul' (< CToch. **āñc(ā)ma*; cf. B *āñme*); a parallel sequence *-*āti*, proper, no doubt, to the *ā*-stems, can be seen in occasional forms like *kāryāš* (: *kri*, pl. *kāryāñ* 'will, thought'). The *Fremdvokal* of the normal post-consonantal allomorph *-āš* is easily explained. Alongside the types in *-*oti* and *-*āti* pre-Tocharian presumably inherited a series of ablatives in *-*uti* and/or *-*eti*, the former belonging to the *u*-stems and the latter comparable to the Armenian type in *-ē* discussed above. Both sequences would regularly have yielded CToch. and Toch. A *-āš*, and it is not unlikely that this variant first appeared in such forms.⁴¹ The subsequent spread of *-āš* at the expense of *-aš* and *-ās* would have been a natural consequence of the loss of final *-*a* and *-*ā* in Toch. A—a change which vastly increased the number of oblique case-forms ending in a consonant and led to the creation of ablatives in which *-ā* functioned as a mere epenthetic vowel.⁴²

Our second example of the change *-*VTi* > *-*Vsi* > *-Vš* is furnished by the Toch. A 3 sg. present active in *-(ā)š* (cf. *pālkāš* : *pālk-* 'shine', *lākāš* : *lāk-* 'see', *arāš* < **aršāš* : *ar-* 'produce'). This ending, like that of the ablative, has not been satisfactorily etymologized in the existing literature. The majority of scholars who have ventured an opinion on the subject, beginning with Holger Pedersen in 1941 (*Tocharisch vom Gesichtspunkt der indoeuropäischen Sprachvergleichung*,

⁴⁰ In this way *-*éti* would have come to stand in the same relationship to *-*oti* as did the athematic 3 pl. in *-*éti* to thematic *-*onti*, or the athematic gen. sg. in *-*és* to thematic *-*os* (= Hitt. *-aš*). Godel (*An Introduction to the Study of Classical Armenian*, p. 105) prefers a direct derivation of pre-Arm. *-*eti* from the preverb **éti*, but this would fail to account for the parallelism between *-oy* and *-ē*. The apparent *Gruppenflexion* of Armenian phrases like *y-aysm lernē* 'from this mountain', which Godel takes as evidence for a postposition, is precisely comparable to the syntax of the secondary cases in Tocharian.

⁴¹ In the case of *-āš* < *-*eti*, we would have to assume that the expected palatalization of the preceding consonant was lost by analogy.

⁴² It should be borne in mind that the *Fremdvokal* in Tocharian A is a completely predictable alternant of zero.

p. 142), have favored a derivation of the final sibilant from a particle or pronoun ultimately identical with the IE demonstrative stem **se/o-*; the reader is referred to van Windekens, *op. cit.*, II 2, pp. 263–6, for a survey of the numerous variants of this theory, all of which necessitate a fairly complex array of special assumptions for pre-Tocharian.⁴³ A far more elegant alternative now presents itself: if the reasoning of the preceding paragraphs is correct, the 3 sg. in *-(ā)š* can simply be taken as the regular postvocalic reflex of the PIE primary ending *-*ti*. This is the position I would like to take here; a form like 3 sg. *arāš*, in my view, is in fact the lineal continuant of a pre-Toch. **orseti* (probably originally an *s*-aorist subjunctive; cf. part I), while *lākāš* reflects a proximate preform **lākāti*, perhaps from a still earlier **lukājeti*. As in the ablative, the *-š* which regularly arose after vocalic stems was generalized to stems which historically ended in a consonant. The class I 3 sg. *pālkāš* is thus not the direct reflex of a quasi-IE **bhlǵ-ti*, nor even of a pre-Toch. **pālkti*, but simply the form that resulted from the synchronic suffixation of *-š* to the athematic stem *pālk-*.⁴⁴

The above examples, though only two in number, are of such quality as to make it highly probable that CToch. *-*(ā)š* is the regular post-

⁴³ Thus, to name but two problems, any "pronoun" theory of the ending *-(ā)š* must account in some *ad hoc* way for the absence of distinct masculine, feminine and neuter forms in the 3 sg., as well as for the failure of the pronominal element to appear in the preterite as well as the present. The altogether different approach taken by Krause (*KZ* 69, 155 ff. (1951)), according to which *-(ā)š* simply continues the old 2 sg. in *-*si*, is too arbitrary to have gained any significant support.

⁴⁴ Neither the foregoing explanation of A *-(ā)š* nor, so far as I am aware, any of its competitors can account directly for the corresponding B 3 sg. in *-(ā)ṃ*. In view of the obscurity which surrounds this ending, it may be worth considering the following possibility. At a stage of Common Tocharian following the change of *-*ti* to *-*š* (i.e., after the palatalization of consonants before front vowels and the loss of final high vowels), there is a chance that the *-*š* of the 3 sg. would have coincided with the *-*š* that developed in the 2 sg. as the regular reflex of PIE *-*si*. One of the ways that speakers might have remedied this inconvenient homophony would have been by generalizing the pattern of the plural endings, where the 3 pl. in *-*nc* (< *-*nti*) differed by only a nasal consonant from the 2 pl. in *-*c* (< *-*te*). The result would have been the creation of a new 3 sg. in *-*ṃš*, which, as we may infer from the treatment of the parallel cluster *-*ns* (cf. obl. pl. A *-š*, B *-ṃ*), would have given A *-š* and B *-ṃ*. The weaknesses of an explanation along these lines are obvious: analogical change does not typically proceed from the second person to the third or from the plural to the singular, and the 2 sg. in **š* is nowhere attested, having been replaced by the ancestor of A *-š*, B *-t(o)* within the Common Tocharian period. In the absence of any fully acceptable alternative, however, the prospect of deriving both A *-š* and B *-ṃ* from a single prototype has an undeniable appeal.

vocalic reflex of PIE **-ti* in final position. It must remain a task for the future to determine whether the development of **-t-* to **-s-* took place in other environments as well; that the change was highly restricted is clear from the fact that unlike the similar rule in Greek, the Tocharian assibilation process was blocked after nasals (cf. A 3 pl. *arseñc* 'they produce' < **-onti*). What is important for our present purposes, however, is that the passage of **-t-* to **-s-* in the ablative and 3 sg. makes it *a priori* likely that **dh*, which otherwise merged with **t* almost everywhere, would have been subject to this treatment as well. We have seen that CToch. **yäs*, the ultimate source of A *piš* and B *paš*, occupies the same structural position in the Tocharian verbal system as the forms *ihī*, *iθi* and *īt* occupy in the systems of Vedic, Greek and Hittite, respectively. In light of the results above, there is no reason not to account for this congruence in the most direct way possible, namely, by deriving **yäs* from **(h,)idhī* by regular sound change. The conclusion is inescapable that here, as for quite different reasons in the case of **(pā)klyaus*, a Tocharian imperative in **-s* preserves an archaism of remarkable antiquity.

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