Hitt. *naiššut, neššut*

One of the most valuable of our lamented colleague Erich Neu’s contributions to Hittite linguistics and philology was his groundbreaking two-volume study of the Hittite mediopassive (Neu 1968a and b). It is only fitting, therefore, that a mediopassive form should be the subject of this essay in his memory.

The form in question is the 2 sg. middle imperative of the common verb *nai*-‘turn (trans. and intrans.)’, normally attested in the shape *naiššut* (*na-iš-, na-a-iš-, na-a-i-iš-, na-eš-), but also occasionally found as *neššut* (*ne-eš-, ne-iš-, ni-iš-).*¹ From a synchronic point of view, the structure of *naiššut* (*neššut*) is perfectly clear: it consists of the root *nai-* (*ne-*), followed by an apparently non-functional *š*-element and the 2 sg. mid. impv. ending -*ššut*. The functionally vacuous -*š*-, which will be called “intrusive” -*š*- in what follows, is found in other second person forms of *nai-* as well — specifically, in the 2 pl. act. pres. *naištěni, naištani*, the 2 pl. pret.-impv. *naištěn* (beside later *neyattěn*),² the 2 sg. mid. pres. *naištěa(ri)* (beside *neyattattatti*), and the 2 pl. pret.-impv. *naišdumat*. Quite distinct from this -*š*-, at least synchronically, is the ending -*š*- that marks the 3 sg. active preterite in *nai-* (*naiš*) and the vast majority of other -*i*-verbs.³ The lexical distribution of intrusive -*š*- is more restricted than that of desinential -*š*, being largely confined to -*i*-conjugation verbs in stem-final -*ai*- (cf. 2 pl. pret.-impv. *daištěn* (: *dai*- ‘put’); 2 pl. pres. *pištěni*, pret.-impv. *pištěn* (: *pai*- ‘give’), 2 pl. pret.-impv. *ḥalzištěn* (: *ḥalzai*- ‘call’); 2 pl. pres. *memištěni* (beside *memattěni*), pret.-impv. *memištěn* (: *memai*- ‘speak’); etc.) and to verbs modeled on them (cf. 2 pl. pres. *uštěni* (beside *auttěni*), 2 pl. pret.-impv. *auštěn* (: *au*- ‘see’)).

The origin of desinential -*š* is generally agreed to be the 3 sg. in *-*-*š*-t of the PIE s-aorist.*⁴ The origin of intrusive -*š*-,* however, is unclear. Under the standard Brugmannian view of the s-aorist, which assumes a uniformly sigmatic paradigm with **e*: *e (“Narten”) ablaut for the parent language (1 sg. *nēih-s-š*, 2 sg. *nēih-s-s*, etc.), forms like *naiššut, naištěn*, etc. might in principle be interpreted as survivals from the period when Anatolian, like Greek, Indo-Iranian, and other
familiar IE languages, had a “classical” sigmatic aorist with *-s- in all three persons and numbers. This view is in fact advocated by older writers, but it can no longer be seriously entertained. If intrusive -š- were simply a holdover from an earlier “classical” s-aorist paradigm, its absence from the 1 sg., 1pl., and 3 pl., and its almost exclusive predilection for verbs in -ai-, would be impossible to explain. The traditional fully sigmatic reconstruction of the s-aorist, moreover, is no longer tenable. The restriction of the *-s- of the s-aorist to the 3 sg. active is a feature that Hittite shares with the other “post-Brugmannian” branch of the family, Tocharian.\(^5\) Taken together, the facts of Hittite and Tocharian point to an originally “presigmatic” PIE category in which the s-element, starting from the 3 sg. active indicative and the active subjunctive, diffused through the rest of the paradigm in the post-IE period.\(^6\) A form like 2 pl. pret. naišten cannot go back to an inherited s-aorist *néiH-s-te, *néiH-s-te or (with analogical vocalism) *nóiH-s-te because no such form existed when Anatolian and Tocharian split off from the rest of the IE family.

What, then, was the source of intrusive -š-? One might consider an updated version of the standard account, taking naišhut, naišten(i), naišdumat, etc. as typological parallels to normal s-aorists — forms that acquired their -š- from the 3 sg. naiš independently of the developments that produced the classical s-aorist in the “Inner” IE languages.\(^7\) Diffusion of -š- from the 3 sg., however, would not explain the peculiar association of intrusive -š- with the second person. More important, it would not explain the existence of the less common variant nešhut beside naišhut. The forms nešhut and naišhut have quite different philological profiles. The spelling with synchronically irregular ne- is found twice in a Middle Hittite manuscript (KBo XVII 105), while the spelling nai-, with the standard antecosonantal root shape, occurs only in manuscripts from the Neo-Hittite period. nešhut is thus older than naišhut, which evidently replaced it. The root vocalism associated with intrusive -š-, at least in the 2 sg. middle imperative, was historically different from the vocalism associated with desinential -š-. 3 sg. pret. naiš goes back to a preform *nóiH-s-t, with substitution of analogical *-o- for *-ē-; nešhut presupposes an e-grade stem *néiH-s-.\(^8\)
The e-grade of *neshut can easily be explained on the basis of the known behavior of the root *neiH- in the parent language. Though confined to Hittite and Indo-Iranian, *neiH- was one of a number of roots — others were *węgeh- ‘convey’, *węedh- ‘lead’, *pek- ‘cook’, and * dhegH- ‘burn’ — whose reconstructible late PIE averbo included a full-grade thematic present and a well-developed (pre)sigmatic aorist. In the Rigveda, the s-aorist of nī- ‘lead’ is less well attested in the indicative (1x) and injunctive (1x) than the subjunctive (6x; cf. GAv. 3 sg. naēśaṛ). The best-attested form of all, however, is the si-imperative néśi (10x). 

si-imperatives are a conspicuous category in Vedic, where their synchronic function is usually to supply a 2 sg. imperative to the s-aorist. The historical importance of these forms has increased enormously since 1966, when they were first explained as haplologized 2 sg. subjunctives by Szemerényi. The process was initially seen as confined to Indo-Iranian: in Szemerényi’s original account, preforms of the type *nāśasi ‘may you lead’ were simplified to forms of the type *nāśi (> Ved. nēśi) ‘lead!’.

Since 1986, however, reflexes of si-imperatives have also been found in Celtic (cf. OIr. tair ‘come!’ < *to-ar(e)-ink-si beside subj. *to-ar(e)-iss- < *-ink-se/o-) and Tocharian (cf. TB pāklauś ‘hear!’ < *-ikel (= Ved. śrōṣi)), showing that the haplology was actually as old as PIE itself. The Indo-Iranian si-imperative *nāśi was the descendant of an already haplologized late PIE *néiH-si, reduced from the 2 sg. s-aorist subjunctive *néiH-s-esi within the parent language.

si-imperatives also occur in Hittite. By far the best-attested such form is the common paḥši ‘protect!’, found from at least Middle Hittite; another is the isolated Middle Hittite hapax eši ‘settle!’ (Madd. Vs. 19). Neither paḥši nor eši, as it happens, is based on an s-aorist: paḥši is the imperative of the old s-present paḥš- (< *peh₁-s-) ‘protect’, while eši, despite its transitive meaning, belongs to the paradigm of the root present *hēš- (or *hēh₁-s-) ‘sit’. The fact that paḥš- and eš- were etymologically presents rather than s-aorists did not prevent them from acquiring si-imperatives. Like s-aorists, they had 2 sg. active subjunctives in *-sesi and thus met the condition for Szemerényi’s haplology rule. As we shall see below, at least one other instance of a present-based si-imperative like paḥši
and eši can be identified in Hittite. Of more immediate interest, however, is the fact that Hittite also offers indirect evidence in for an s-aorist-based si-imperative of the Indo-Iranian type.

The 3 sg. preterite naiš has an unbroken history reaching back to PIE *néiH-s-t; indeed, it is the only Hittite preterite in -š that can be identified with an independently reconstructible s-aorist. But the PIE extended paradigm of which *néiH-s-t was a part, though not fully sigmatic in the Greek or Indo-Iranian sense, also included a sigmatic subjunctive *néiH-s-e/o- (cf. Ved. nēṣa-) and a si-imperative *néiH-si (Ved. nēṣi). It is legitimate to assume, therefore, that pre-Hittite, as a language where si-imperatives were in principle preserved, would also have inherited a 2 sg. active imperative *nēsi < *néiH-si. No direct reflex of this form has survived; the actual 2 sg. imperative of nai- is the differently-formed nai, parallel to dai, pai, halzai, etc. beside dai-, pai-, halzai-. The missing Hitt. *nēši, however, is presupposed by the attested but thus far unexplained nešūt.15 It is significant that Vedic Sanskrit has a series of aorist middle imperatives in -sva — representative examples are rāsva (: rā- ‘grant’), yākṣva (: yaj- ‘sacrifice’), and mātsva (: mad- ‘intoxicate’) — which are shown by their ablaut and accent pattern to be secondary “medializations” of active imperatives in -si (cf. rási, yāksi, mātsi). Narten, in her exemplary discussion of the imperative of the s-aorist (1964: 45-9), explains the genesis of these forms via an implicit proportion:

subj. act. rāsat(i), yāksat(i), mātsat(i) : impv. act. rāsi, yāksi, mātsi : :

subj. mid. rāsate, yāksate, mātsate : impv. mid. X,

where X was solved as rāsva, yākṣva, mātsva.16 nešūt is clearly a medialization of the same type. We have no way of knowing whether the circumstances of its creation were exactly the same as in Indo-Iranian or whether it was simply made by substituting -hūt for -i on the model of verbs in root- or stem-final -š-, which offered pairs like paḥši (act.) : paḥ(ha)šūt (mid.) and eši (act.) : ešūt (mid.). Under either scenario the final analysis is the same: nešūt is an analogical pendant to the unattested *nēši.
We can now begin to understand the origin of intrusive -š-. Hittite at an early stage in its history had a 2 sg. active imperative *nēsi (< *néiH-si) with a middle counterpart *nēšuş (vel sim.). From these were built new plural imperatives *nēsten (act.) and *nēstuwa (mid.), an obvious analogical model being provided by inherited forms like 2 pl. impv. *paḥsten (act.; cf. MH paḥhašten) and *paḥstuwa (mid.; cf. MH paḥhašdumat) beside 2 sg. *paḥsi (act.) and *paḥšuş (mid.). But since elsewhere in the language plural imperatives were formally identical to plural preterites, it was inevitable that the newly created imperatives *nēsten and *nēstuwa would come to be used as preterites as well. In their new preterital role, *nēsten and *nēstuwa triggered the back-formation of 2 pl. presents *nēsteni and *nēstuwar. Eventually, *-s- was propagated to the singular as well: 2 pl. mid. *nēstuwar (pres.) and *nēstuwa (pret.) jointly induced the creation of 2 sg. mid. *nēstar (pres.) and *nēsta (pret.). The result was the nearly complete sigmatization of the second person, with only the 2 sg. active remaining unaffected by the spread of *-s- (cf. Hitt. pres. naitti, pret. naitta). In the wake of all this the pre-Hittite system would have looked as follows:

<table>
<thead>
<tr>
<th>active</th>
<th>middle</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 sg. pres.</td>
<td>[*naitē]</td>
</tr>
<tr>
<td>2 sg. pret.</td>
<td>[*naita]</td>
</tr>
<tr>
<td>2 sg. impv.</td>
<td>*nēsi</td>
</tr>
<tr>
<td>2 pl. pres.</td>
<td>*nēsteni</td>
</tr>
<tr>
<td>2 pl. pret.</td>
<td>*nēsten</td>
</tr>
<tr>
<td>2 pl. impv.</td>
<td>*nēsten</td>
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</tbody>
</table>

Most of these forms are recognizably ancestral to their attested Hittite counterparts. In the development from pre-Hittite to Hittite proper the middle endings were modernized through phonological and other changes (*-tar, *-tuwar ⇒ -ta(ri), -tuma(ri); *-ḥu ⇒ -ḥut; *-ta, *-tuwa ⇒ -tat(i), -tumat(i)); *nēsi was lost and replaced by nai; the vowel *-č- was mostly replaced by -ai-, taken from the present and preterite active singular. The phonological reflex of *-č-
was preserved in two sets of forms: 1) nešštut itself, which was enabled to survive into Neo-Hittite by its formal and functional distance from the corresponding indicatives in -tər(i), -tət(i); and 2) the compounds of nai-, viz., pennai- ‘drive away’ and unnai- ‘drive hither’. The latter two verbs have no middle forms, but the sparsely attested 2 pl. actives penništten(i) and unništten(i) are the phonologically regular continuants of pre-Hitt. *-něštten(i). From nai- and its compounds intrusive -š- was extended to other hi-verbs in -ai-. Thus, e.g., the “duratives” in -annai-, historically unrelated to pennai- and unnai- but almost identically inflected, have 2 pl. forms in -ißten(i) (e.g., impv. iyanništten ‘march!’). The pattern also spread to uppai- ‘send’, memai- ‘say’, and dəlai- ‘leave’. Monosyllabic stems like dai- ‘put’, išhəi- ‘bind’, and šai- ‘press’ generally substitute -ai- for *-Č- like uncompounded nai- (cf. daištten, išhəištten, šaištten). The case of pai- ‘give’, which has only pištten and pištteni for expected *paštten(i), is special; -i- here was probably taken from the compound uppai- (2 pl. *uppištten(i)), which also influenced the paradigm of pai- in other ways (cf. 1 pl. piwen(i) like uppiwen(i)).

The compounds of nai- and some of their congeners have a special 2, 3 sg. preterite ending -ištta (penništta, unništta, uppištta, memištta, dəlištta; later peštta, naištta, etc.), the origin of which is inseparable from the forms just discussed. Prior to the sound law that reduced word-final *-st to *-s, the 3 sg. preterite of au- would have been *aust (vel sim.), corresponding to a 3 sg. present *awē. Perhaps because of the morphophonemic inconvenience of the latter form — heterosyllabic [a.w-] was not otherwise a typical alternant of tautosyllabic [au.-] — *awē was prehistorically remade to *austi (> Hitt. auști), back-formed from the preterite *aust on the model of mi-conjugation pairs of the type *esti : *est, *gentai : *g ent, etc. This substitution had morphological consequences. Since au- was now, so to speak, a “mi-verb” in the 3 sg., the preterite *aust ‘saw’ yielded not *auš but aušta in Hittite, with the normal mi-conjugation addition of a final support vowel (cf. ēšta ‘was’, kuenta ‘slew’, etc.). Subsequently, the inherited 2 sg. preterite *autta became aušta as
well, probably under the influence of the semantically related īštamaš- ‘hear’,
where both the 2 sg. and 3 sg. preterite had the form īštamašta.\(^2\) The combined
2, 3 sg. ending -sta now spread to other verbs with a 2 pl. preterite in -šten. The
proportion was

\[
\text{aušten : aušta : : memišten : \(X\),}
\]

where \(X\) was solved as memišta. In the same way arose panništa, unništa, uppišta,
etc. Interestingly, the “duratives” in -annai- retained their inherited 3 sg.
preterite in -anniš (<*-nh,i-st), at least in older Hittite (cf. OH iyanniš, etc.).

The medialized si-imperative nešhut thus proves to be the form that holds
the key to the secret of intrusive -š- — both its confinement to the second person
and its affinity for verbs in -ai-. Confirmation of this analysis comes from
another unusual cluster of facts. The ḫi-verb īšš(a)-, Neo-Hittite īšš(a)-, is the
iterative of ie- / iya- ‘do’; historically, it goes back to earlier *jí-ih₃-s- (vel sim.),\(^2\) a
reduplicated s-present of the same formal type as the Indo-Iranian desiderative
(cf. Ved. cikitsati ‘wishes to know’; Jasanoff 1988: 235). For the most part this
stem, like other iteratives in -šš(a)-, was “thematized” in Hittite, i.e., provided
with a stem-final -a- extracted from the formally ambiguous 3 pl. in -anzi. The
athematic stem still appears, however, in two places: 1) before -w-, as in 1 pl.
ēššwen(i) and supine īššuwan; and 2) in 2 pl. pres. īštēni, pret.-impv. īšten. The pre-
w cases are quasi-regular; similar athematic retentions are found, e.g., in the
verbal noun pippuwar beside pippa- ‘overthrow’, and in the infinitive and verbal
noun malluwanzi, malluwar beside malla- ‘grind’. The 2 pl. cases, however, are
harder to explain. There is no hint of an athematic stem īšš- in the singular (cf.
MH 2 sg. īššatti, OH 3 sg. īššai), and even in the 2 pl. the athematic forms were
replaced by īššatten(i) and ēššatten(i) from the Middle Hittite period. In the
context of what we have seen thus far, the natural inference is that īštēni and īšten
are forms like naišten(i), analogical elaborations of an inherited 2 sg. si-imperative
*īšši < *jí-ih₃-st < 2 sg. subj. *jí-ih₃-esi. In the case of naišten(i), our decision to set
up a si-imperative *nēši was based on Ved. néši and the suggestive power of
nešhut; there is no *nēši or *naiši in any documented form of Hittite. What makes
Interesting is the fact that the $si$-imperative $*išši$ is actually attested. In the Hittite-Akkadian bilingual of Hattusilis I, a Neo-Hittite copy of an Old Hittite original, we find the 2 sg. imperative $e-iš-ši$, which Oettinger (1979: 59, note 47) correctly explains as a copyist’s modernization of underlying $*i-iš-ši$.

In the case of this word we are wholly in the realm of fact; $e-iš-ši$ is the “smoking gun” that establishes the crucial role of $si$-imperatives in the propagation of intrusive $-š$.

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Notes

1 The spellings are collected by Neu (1968a: 122); the forms are classified by period in CHD, s.v. nai-.

2 Since the 2 pl. preterite and imperative are always identical in Hittite, the abbreviation “2 pl. pret.-impv.” can be used to characterize the common form whether or not both functions are attested. Late “thematic” forms of the type neyattēn will play no role in the following discussion.

3 The lexically restricted ending -šta is discussed below.

4 So already clearly Sturtevant (1951: 144), followed by Oettinger (1979: 460 and passim). That the original form of the ending was *-s-t and not *-s is shown by the pair auşzi: aušta, discussed below.

5 By “post-Brugmannian” I mean not accessible to IE scholarship until after the classical formulation of IE comparative grammar in the second edition of Brugmann’s Grundriß (1897-1916).

6 See the preliminary discussion in Jasanoff 1988, with references to essential earlier work by Watkins and Ivanov. A systematic account of the PIE “presigmatic aorist,” with special attention to the facts of Hittite and Tocharian, is given in chapter 7 of my Hittite and the Indo-European Verb, currently in press.

7 I use the term “Inner IE” to refer to the body of still more or less undifferentiated IE dialects that remained after the separation of Anatolian and Tocharian from the rest of the family.
Following Melchert 1994, I assume that PIE *-oi- gave Hitt. -ai- before coronals (148), and that PIE *-ei- and *-ēi- gave Hitt. -e- (-ē-) via *-ē- everywhere (56, 148 ff.). Under these assumptions it would also be possible, at least in theory, to derive the imperative from *nēiH-s-, with *-ē- taken from the 3 sg. preterite before the replacement of 3 sg. *nēiH-s-t by *nóiH-s-t under the influence of the s-less singular forms nēhḥi, naitti, nāi, etc. (< *nóiH-). Such a scenario, however, which would make both naiš and nešhut analogical, would be completely arbitrary.


The Old Irish and Tocharian forms are discussed in Jasanoff 1986 and Jasanoff 1987 (92 ff.), respectively.

The antiquity of néši is denied by Narten (163) on the grounds that the apparent s-aorist of nē- was actually an iṣ-aorist (*nāji-s-). But I am not convinced that an s-aorist *nēiH-s- would phonologically have yielded an iṣ-aorist in Vedic, and the absence of si-imperatives to se† roots in Vedic does not preclude the possibility that such imperatives existed in the parent language.

Otherwise Oettinger (211, note 66). As Craig Melchert points out to me, however (p.c.), the only Hittite imperatives in -i with any claim to antiquity are those in which the stem either itself ends in -i-, as in iyanni, memi, etc., or where it ends in -š-, as in paḥši and the forms discussed below. Forms like tarni ‘release!’ (beside normal tarna), ḫani ‘draw (water)!’ (beside ḫān), and kuen(n)i ‘kill!’ have
apparently copied the word-final sequence -\text{n}i from the type iyanni. The presence of *si-imperatives in Hittite proves that Anatolian inherited the PIE subjunctive.

13 Oettinger takes the underlying Hittite verb paḥš- (1 sg. paḥ(ḥ)ašha, 3 sg. paḥša(ri), etc.) from an s-aorist rather than an s-present. But since the *-.s- of the s-aorist is restricted to the 3 sg. in Anatolian, and since the root *peh₂- ‘protect, graze’ is independently known to have formed an s-present in both Slavic (OCS pasq) and Tocharian (A pās-), the choice of an s-present seems correct for paḥš- as well.

14 Note also that the inherited *si-imperative *˚léusi (Ved. ˢ́rōṣi, Toch. -klyaus, probably also Messapic KΛΛΩΗΙ) is probably based on a Narten s-present *˚l¢u-s-ti, with subjunctive *˚léu-s-e/o-.

15 I write *nēši, with long -ē-, because the spelling in an actual text would probably have been ne-e-ši. But there is no contrast between accented long and short -e- in Hittite; the vowels of *nēši and nešut were phonologically the same (cf. Melchert 1994: 103).

16 The other Vedic forms cited by Narten are trāśva (: trā- ‘protect’), māśva (: mā- ‘measure’), váṃśva (: van- ‘strive for’), and sākṣva : sah- ‘be victorious’), to which she adds GAν. frāśuṇa (: fras- ‘ask’).

17 Here and below the specific reconstructions offered for the pre-Hittite endings are somewhat arbitrary. I set up the 2 sg. mid. impv. ending as *-ḥu on the assumption that the final -t of -ḥut was an analogical import from the active imperatives in -ut < *-u-dhi. For *-r in the present middle see Yoshida 1990: 103 ff.
Likewise exceptional is išpišten (KUB XII 17 6), conceivably a secondarily sigmatized form of išpitten (KUB XXXIII 62 III 11’). 2 pl. halzišten (ḥalzai- ‘call’) is presumably parallel to penništen, memišten, *uppišten, etc.

The relationship of this ending to simpler -š and -ta is a source of particular confusion in the older literature; see, e.g., Kronasser (1956: 191 ff.) for a representative discussion.

Like au(š)- and presumably modeled on it was mau(š)- ‘fall’.

[a.w-] also occurred in the 3 pl. pret. *awër, where it was likewise eliminated; the attested a-ú-(e-)ir probably represents phonetic [au.er].

Both forms were perfectly regular; -ta, taken from the hi-conjugation, regularly replaced -š as the 2 sg. pret. ending in consonant-final stems.

If the root began with a laryngeal, as seems not unlikely from the rough breathing in Gk. ἰημι ‘throw’ (cf. LIV 225), any of the following alternatives would generate the required output: 1) root *hājeh⁵, reduplicated stem *hā-hāh₁-s- > ıš(š)⁵; 2) root *hējeh⁵ > *jeh₁-, remade reduplicated stem *jē-jēh₁-s- > ıš(š)⁵; 3) root *hējeh⁵, reduplicated stem *jē-hāh₁-s- > ıš(š)⁵.

The other special features of the inflection of ıšš(a)- are perfectly consistent with this analysis. The scriptio plena writing of the ending in ıšťeni reflects the formerly widespread pattern of accent on the 1, 2 pl. endings in the present, but on the stem in the preterite-imperative of athematic hi-verbs (cf. pres. tumēni, dattēni : pret. dāwen, dāttēn; pres. umēni, uštēni : pret. aumen, autēn; etc.). The 2, 3 sg. preterite corresponding to ıštēni, ıšten was probably originally *ıštā, later “clarified” to the attested ıssšišta.