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The morphophonological analysis of Hittite *šipantaš, šipandaš* '(s)he libated'

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Abstract: This article starts with the observation that the Hittite 3sg.pret.act. form *šipantaš, šipandaš* (OH/MS) '(s)he libated' can hardly be analysed as consisting of a *tarna*-class inflected stem *šipant/da-* + the 3sg.pret.act. ending *-š*, since the OH/MH verbal paradigm of 'to libate' contains no other *tarna*-class inflected forms. It is therefore argued that *šipantaš, šipandaš* should be analysed as consisting of the consonantal verbal stem *šipant-* + *-š*, which implies that the *a* in *šipantaš, šipandaš* is an empty vowel. In order to explain the spelling *-ntaš, -ntaš* vs. the spelling *-nza*, which is commonly used to note down the sequence /-nts/ < PIE *-*nts*, it is argued that *-ntaš, -ndaš* denotes /-ntːs/, the regular outcome of a PIE sequence *-*nds*.

Keywords: Hittite, phonology, cuneiform

1. Introduction

The oldest attested 3sg.pret.act. forms of the verb *ši(p)pǎnt-ⁱ* 'to libate' are *ši-pa-an-ta-aš* (OH/MS) and *ši-pa-an-da-aš* (OH/MS, OH/NS), both attested multiple times.[1] As far as I am aware, no one has been explicit as to how to morphologically and phonologically interpret these forms.[2] In the following article, I will do so, and argue that these forms contain some interesting information on Hittite phonology.

2. A *tarna*-class interpretation?

At first sight, one may be inclined to morphologically analyse *šipant/daš* as consisting of a stem *šipant/da-* + the 3sg.pret.act. *ḫi*-conjugation ending *-š*. It would then be formed according to the

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[1]   *ši-pa-an-ta-aš* (KBo 15.10 iii 59, 66 (OH/MS)), *ši-pa-an-da-aš* (KBo 15.10 iii 64, 68 (OH/MS), KUB 40.107 obv. 6 + IBoT 2.18 ii 7 (NS)), cf. CHD Š, 385. The younger form *ši-pa-an-za-aš-ta* (KBo 8.68 iv? 5 (NS), KUB 20.59 v 6 (MH/NS)) can straightforwardly be interpreted as /sipːántstːa/, i.e. consisting of the stem *ši(p)pant-* + the ending *-tta* (which originally belongs to the *mi*-conjugation, but which is replacing its *ḫi*-conjugated counterpart *-š* through time) + an intervening /s/ that automatically arose between two dental stops (cf. e.g. *ēzzasta* /ʔétstːa/ 'he ate' = stem /ʔet-/ + intervening /-s-/ + ending /-tːa/).

[2]   Cf. e.g. Oettinger 1979, 41 and Hoffner − Melchert 2008, 216, where these forms are cited without any comments on their morphophonological analysis.

so-called *tarna*-class inflection,[3] in which we find a verbal stem ending in -*a*- in strong stem forms, compare e.g. 3sg.pret.act. form *tarnaš* 'he let go' = *tarna*- + -*š*, or *pēdaš* 'he brought' = *pēda*- + -*š*. However, this interpretation is problematic since the paradigm of *ši(p)pănt-ⁱ* does not show any other specifically *tarna*-class inflected forms in its Old and Middle Hittite attestations. The 3sg.pres.act. form is in this period always *ši(p)pănti* (attested dozens of times), clearly showing the consonantal stem *ši(p)pănt-*.[4] In NS texts, too, *ši(p)pănti* is the dominant form (hundreds of attestations), although here we occasionally also find 3sg.pres.act. forms of the shapes *šippantai* (1×), *ši(p)pandai* (6×), *šippandāi* (3×) that do show a *tarna*-class stem *ši(p)pant/da-*.[5] However, since these forms seem to have been relatively rare, specifically NH creations, they cannot be used as arguments in favour of analysing the OH/MS form *šipant/daš* as a *tarna*-class form. Likewise, in its 1pl. forms (pres. *šipanduu̯ani* (MH/NS), *šipandueni* (NS), not ***ši(p)pant/dumeni*; pret. *šipan-tuu̯en* (LNS), *šipanduen* (MH/NS), not ***ši(p)ant/dumen*), its infinitive (*ši(p)pant/duu̯anzi* (MS, NS), not ***ši(p)pant/dumanzi*) and its verbal substantive (*ši(p)pant/duu̯ar* (NS), not ***ši(p)pant/dumar*) no attestations with a *tarna*-class inflection can be found.[6] All this shows that a *tarna*-class interpretation of *šipant/daš*, i.e. a morphological analysis as *šipant/da-* + -*š*, would fully detach this form from the rest of its paradigm and is therefore unsatisfactory.

3. Proposal: A consonantal stem interpretation

On the basis of the OH and MH 3sg.pres.act. form *ši(p)pănti*, which clearly shows a consonantal stem, *ši(p)pănt-* + -*i*, I want to propose that the OH/MS 3sg.pret.act. form *šipant/daš* should be interpreted as containing a consonantal stem, as well: *ši(p)pant-* + -*š*. This implies that the -*a*- that is present in spelling between the stem and the ending -*š* should be interpreted as a so-called empty vowel.

4. The problem

Obviously, there is one problematic aspect to the idea that *šipant/daš* represents *ši(p)pant-* + -*š*: in Hittite orthography, a word-final cluster consisting of nasal + dental stop + sibilant is in principle always spelled as °*n-za*, a sequence that is omnipresent in Hittite texts, e.g. *a-da-an-za* 'having eaten (nom.sg.)', which consists of the stem *adant-* + nom.sg.c. ending -*š*, or *iš-pa-an-za* 'night (nom.sg.)', which consists of the stem *išpant-* + nom.sg.c. -*š*. So, if the 3sg.pret.act. form of 'libate' really had a morphological shape *ši(p)pant-* + -*š*, why was it not spelled **ši-pa-an-za, with °*n-za*? To my mind, this question can be answered by taking the two following points into account.

5. Point A: Different types of *TS*-clusters

First, as is well known, all Hittite consonants come in two variants, which are traditionally called 'fortis' and 'lenis': fortis consonants are in (graphic) intervocalic position spelled as geminates, *VC-CV*, whereas lenis consonants are spelled as singletons, *V-CV*. In the case of resonants and

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[3]   See e.g. Oettinger 1979, 57–63 ("halbkonsonantische Klasse"); Kloekhorst 2008, 138–141.

[4]   Cf. CHD Š, 384–385.

[5]   CHD Š, 385. Compare also the one 3pl.pret.act. attestation *ši-ip-pa-an-ta-er* (KUB 5.6 iii 63 (NH/NS)), which is clearly a very late innovation vis-à-vis the normal form *ši(p)panter* (MS and NS), cf. CHD Š, 385.

[6]   Note that the 1sg.pres.act. and 1sg.pret.act. forms cannot be used as evidence: *ši(p)pantaḫḫi* / *ši(p)pan-taḫḫun*, attested thus in OS, MS and NS texts, can be interpreted both as consonantal stem *ši(p)pant-* + -*ḫḫi* / -*ḫḫun* (with -*a*- being an empty vowel) and as *tarna*-class stem *ši(p)panta-* + -*ḫḫi* / -*ḫḫun* (with -*a*- being a real vowel). They are therefore ambiguous and do not add anything to the discussion.

fricatives, it is generally assumed that the phonological distinction between the fortis and lenis consonants is length: e.g. *Vr-rV* = represents /rː/ vs. *V-rV* = /r/; or *Vš-šV* = /sː/ vs. *V-šV* = /s/. In the case of stops, however, there is debate on the exact phonological interpretation of the fortis and lenis series, but I personally adhere to the line of thought that here we are dealing with a length opposition as well, e.g. *Vt-tV* = /tː/ vs. *V-tV* = /t/.[7] Although the difference between fortis and lenis consonants is best seen when graphically standing between vowels, there can be no doubt that this distinction was relevant in consonant clusters as well, cf. the difference between *ti-it-nu-* / *ti-it-ta-nu-* = /titːnu-/ 'to install', with fortis /tː/, and *ḫa-at-nu-* / *ḫa-da-nu-* /χatnu-/ 'to cause to dry up', with lenis /t/.[8] Additionally, I have recently argued that the fortis / lenis opposition (i.e. length opposition) is also relevant in clusters of dental stops + sibilant, for which I have proposed the existence of four types:[9]

1. a cluster of lenis /t/ + lenis /s/, spelled *Vz-zV* (also *V-zV*)
   (e.g. °*š-ke-ez-zi*, °*š-ke-zi* = /-skétsi/ (3sg.pres.act. of imperfectives));
2. a cluster of lenis /t/ + fortis /sː/, spelled *Vz-šV* (also *V-za-aš-šV*)
   (e.g. *e-ez-ši*, [*e-za-*]*aš-ši* = /ʔétsːi/ 'you eat');[10]
3. a cluster of fortis /tː/ + lenis /s/, spelled *Vz-zV*
   (e.g. *az-zi-ik-ke/a-* = /ətːsɨkːé/á-/ 'to be eating');[11]
4. a cluster of fortis /tː/ + fortis /sː/, spelled *Vt-šV*
   (e.g. *ku-it-ši* = /kʷitːsːi/ 'what for him').

This opens up the possibility that also in other positions in the word, or as a part of larger clusters, different *TS*-clusters may have existed. The fact that the spelling of *šipant/daš* 'he libated' differs from a form like *išpanza* 'night' may then mean that these words contain two different types of *nTS*-clusters.

6. Point B: Different types of *-nt*-clusters

Second, I have argued elsewhere[12] that in Old Hittite times the verb *išpãnt-ⁱ*, *ši(p)pãnt-ⁱ* 'to libate' contained a cluster /-ntː-/, with a fortis /tː/, the regular outcome of PIE *nd, which differs from the cluster /-nt-/, with lenis /t/, that is the regular outcome of PIE *nt and *ndʰ.[13] This idea is based

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7   Cf. Melchert 1994, 14–21, 147; Kloekhorst 2008, 21–25; 2014a, 544–547; 2016, 213–223; Yates 2019. Note that the old idea that the phonological opposition between fortis and lenis stops was in fact voice (*Vt-tV* = /t/ vs. *V-tV* = /d/) has for a long time been the default assumption and can therefore be found in many handbooks (Luraghi 1997, 3–4; Kimball 1999, 54; Watkins 2004, 556; Vanséveren 2006, 39–40; van den Hout 2011, 64; Francia – Pisaniello 2019, 19; Weiss 2020, 99), and has recently been explicitly defended by Simon (2020). Moreover, Patri (2009; 2019) has argued for a third type of interpretation, i.e. *Vt-tV* = /tʰ/ vs. *V-tV* = /d/. See Kloekhorst forthcoming, however, for a detailed refutation of the arguments of Simon (2020) and Patri (2009; 2019), arguing that the only viable interpretation of the phonological opposition between Hittite fortis and lenis stops is length.

8   Kloekhorst 2020, 165.

9   Kloekhorst 2019.

10   See Kloekhorst 2006, 77–81; 2008, 25–26; 2014a, 161–170, 325–341, 374–377 for my postulation of a phonemic glottal stop /ʔ/ in Hittite. For colleagues who are unconvinced by my arguments in favor of /ʔ/, the form *e-ez-ši*, [*e-za-*]*aš-ši* may be interpreted as /étsːi/: the presence or absence of a glottal stop in this word is immaterial for the present argument about *TS*-clusters.

11   See Kloekhorst 2014a, 337–341 for the postulation of an initial /ə/ in words spelled *aC-*, and see Kloekhorst 2008, 60–62; 2014b, 60–64 for the postulation of a phoneme /ɨ/ in Hittite. For colleagues who are unconvinced by my arguments for /ə/ and /ɨ/, the form *az-zi-ik-ke/a-* may be interpreted as /atːsiké/á-/: the presence or absence of /ə/ and /ɨ/ in this stem is immaterial for the present argument about *TS*-clusters.

12   Kloekhorst 2013, 131–139 (esp. 137–138).

13   The phonetic renderings of Old Hittite /-ntː-/ and /-nt-/ were [-nt-] and [-nd-], respectively. Note that this etymological analysis makes sense within the glottalic theory I adhere to, which interprets PIE *d as pre-glottalized /ʔt/, whereas PIE *t = long plain /tː/ and PIE *dʰ is short plain /t/ (Kloekhorst 2013, 138;

on the fact that, in OS texts, forms of this verb showed consistent spelling with *tV*-signs, not *dV*-signs:[14] 3pl.pres.act. *ši-pa-an-ta-an-zi* (not ****ši-pa-an-da-an-zi*) 'they libate' = /sipːəntːántsi/ < *se-spnd-énti; 3sg.pres.act. *iš-pa(-a)-an-ti*, *ši-pa(-a)-an-ti* (not ****°n-di*) 'he libates' = /ɨspːánti/, /sipːā́ntːi/ < *(*se-*)*spónd-ei*; and deriv. *iš-pa-an-tu-uz-zi-* (not ****iš-pa-an-du-uz-zi-*) 'libation vessel' = /ɨspːəntːutsi-/ < **spnd-u-ti-*.[15] These spellings thus contrast with words containing a cluster /-nt-/, which show spellings both with *tV-* and *dV*-signs, e.g. OS *iš-pa-an-ti*, *iš-pa-an-di* 'at night' = /ɨspːán-ti/ < *kʷspénti.

7. Phonological and morphological interpretation

Combining these two earlier insights, I now want to propose that the 3sg.pret.act. form *šipant/daš* represents a phonological form /sipːántːs/, with a word-final cluster /-ntːs/, with fortis /tː/, which can therefore be morphologically analysed as consisting of the consonantal stem /sipːántː-/ + the 3sg.pret.act. *ḫi*-conjugation ending /-s/.

8. Consequences for Hittite phonology

If this morphophonological analysis is correct, it implies that Hittite indeed did make a distinction between word-final clusters of the shapes /-nts/ (with lenis /t/) and /-ntːs/ (with fortis /tː/), which were spelled *°n-za* and *°n-t/da-aš*, respectively. See the following table where the distinction between these two clusters and their relationship with intervocalic /-nt-/ vs. /-ntː-/ is made more clear:

	/-nt-/	/-ntː-/
before vowel	*iš-pa-a**n-ti**, iš-pa-a**n-di** (OS) 'at night' = /ɨspːá**nt**i/ < **kʷspé**nt**i*	*ši-pa-a**n-ti** (not ****°n-di*) (OS) '(s)he libates' = /sipːá**nt**ːi/ < **se-spó**nd**-ei*
before word-final /s/	*iš-pa-a**n-za** 'night (nom.sg.) = /ɨspá**nts**/ < **kʷspé**nt-s**	*ši-pa-an-t/da-aš* '(s)he libated' = /sipːá**nt**ːs/ < **se-spó**nd-s**

As far as I am aware, there are no other Hittite words ending in -*ntaš* / -*ndaš* where a similar analysis would apply, which coincides with the fact that, as far as I know, no other Hittite lexemes exist for which the non-Anatolian Indo-European languages would point to the reconstruction of a PIE sequence *-*nds*.

2016, 232–235). The merger of PIE *-*nt*- = /-ntː-/ and *-*ndʰ*- = /-nt-/ into Hitt. /-nt-/ = [-nd-] is a matter of shortening of PIE */-ntː-/ to pre-Hitt. *[-nt-] with subsequent voice assimilation to [-nd-] = /-nt-/, whereas PIE */-nʔt-/ first yielded pre-Hitt. *[-nʔt-], where the glottal stop blocked voice assimilation, yielding Hitt. [-nt-] = /-ntː-/.

[14] In MS and NS texts we do find spellings with *dV*-signs (3pl.pres.act. *ši-(ip-)pa-an-da-an-zi*, deriv. *iš-pa-an-du-uz-zi-)*, and in Kloekhorst 2020, 158, I therefore concluded that after the OH period the original cluster /-ntː-/ = [nt-] had undergone lenition to /-nt-/ = [-nd-] (= phonetic voice assimilation). However, evidence for this development only comes from intervocalic -*nT*-clusters, so this lenition may originally have only taken place in intervocalic position, not when being part of larger clusters. Therefore, this does not need to affect our interpretation of the OH/MS 3sg.pret.act. form *šipant/daš*.

[15] See footnote 11 for the postulation of the phonemes /ə/ and /ɨ/; also in these words they are not relevant for the present argument.

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