

## The Hittite verbs in *-šša-*: Can a function be recognized?

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On the basis of a contrastive analysis of all instances of the few *-šša-*verbs which coexist with non-affixed verbs of the same lexeme in Hittite, an attempt will be made to describe their distribution and semantics and determine the function of the *-šša-*suffix. In fact, a significant distribution may be recognized: the Hittite suffix *-šša-* is synchronically used as a marker for a low degree of object affectedness and in so far belongs to the domain of the category 'transitivity' as defined by Hopper/Thompson (1980).

0. The aim of this contribution is to get a bit closer to defining the function of the Hittite verbal suffix *-šša-*.<sup>1</sup> The Hittite suffix *-šša-* is formally analysed as a reflex of an IE *-s-*formation (cf. Jasanoff 2003) and semantically it seems to share the function of the imperfective aspect with the suffixes *-ške-* and *-anna/i-* (cf. Melchert 1998 and Hoffner / Melchert 2003).

Unlike *-ške-*, *-šša-* and *-anna/i-* are only rarely attested.<sup>2</sup> This makes their functional analysis quite difficult. Only four verbs show formations with the suffix *-šša-*:<sup>3</sup>

1. *ḫalziē-<sup>bhi</sup>* (177x) / *ḫalzišša-<sup>bhi</sup>* (58x) 'to call' (cf. *HED*, *HW<sup>2</sup>*)
2. *iē-<sup>mi</sup>* (137x) / *išša-<sup>bhi</sup>* (84x) 'to make' (cf. *HED*)
3. *šije-<sup>bhi</sup>* (76x) (cf. *CHD*) / *šišša-<sup>bhi</sup>* (6x) 'to impress' (cf. *IEED* 5)
4. *uarrāe-<sup>mi</sup>* (3x) / *uarrišša-<sup>bhi</sup>* (22x) 'to help, to come to help' (cf. *IEED* 5)

Of these four verbal pairs only *ḫalziē-<sup>bhi</sup>* / *ḫalzišša-<sup>bhi</sup>* (1.) and *iē-<sup>mi</sup>* / *išša-<sup>bhi</sup>* (2.) are well-attested in all Hittite periods. Their good attestation seems to be a solid foundation for a functional analysis and allows for using basic statistical methods to underline the results.<sup>4</sup> Therefore this contribution will focus on the material these two verbal pairs provide.<sup>5</sup> In the instance of *šije-<sup>bhi</sup>* / *šišša-<sup>bhi</sup>* (3.) and

<sup>1</sup> The research on the suffix *-šša-* is part of a more comprehensive project on Hittite verbal affixes. The work on my corpus commenced already in 2003 as part of the DFG-project 'Verbalcharakter, Suppletivismus und morphologische Aktionsart' (GA 641/2) supervised by Prof. Dr. José Luis García Ramón. I would like to thank him as well as Antje Casaretto (Cologne), Luz Conti (Madrid), and Paola Dardano (Siena) for their comments on earlier drafts of this paper. Of course I am alone responsible for the views expressed here. Ilya Yakubovich (Oxford) and Sadb Nic Fhionnbhairr (London) have done a tremendous job to help me converting my idea into an English text version: thank you. I am grateful to Dr. A. Diebold Jr. For providing the funding that allowed me to travel to the Los Angeles conference. Last but not least, I want to thank my husband: Without his helping hands this contribution would never have come to existence.

<sup>2</sup> The study on Hittite verbal affixes was conducted on a defined text corpus which contained only few attestations of the suffixes *-šša-* and *-anni-*. Therefore, I had to change the method and turn to the corpus of the *Chicago Hittite Dictionarie* (*CHD*), *Hittite Etymological Dictionnaire* (*HED*), *Hethitisches Wörterbuch* (*HW<sup>2</sup>*) – all limited to the lemmata beginning with selected letters, and the *Etymological Dictionary of the Hittite Inherited Lexicon* (*IEED* 5) – not comprising the whole range of attestations.

<sup>3</sup> Both Oettinger (2002) and Kloekhorst (2008) list these four verbs as *-šša-*formations.

<sup>4</sup> I want to thank Aaron Griffith (Vienna) for calling my attention to statistics.

<sup>5</sup> Before going into detail some formalities need to be explained: The Hittite periods OH, MH and NH are treated separately. In the case of those attestations where the age of the 'Abschriften' (XH/XS) was determined by the information of the *CHD* (if available), the assignment to the period in question followed the age of the 'Niederschrift' (XS), in order to be on the safe side. This means that OH, MH and NH in what follows stand for OS, MS and

*uarrae<sup>-mi</sup> / uarrišša<sup>-bhi</sup>* (4.) only some additional remarks will complement the results achieved by *halzje<sup>-bhi</sup> / halzišša<sup>-bhi</sup>* and *iĵe<sup>-mi</sup> / išša<sup>-bhi</sup>*.

1. *halzje<sup>-bhi</sup> / halzišša<sup>-bhi</sup>*

Among all the attestations of *halzje<sup>-bhi</sup>* collected from dictionaries there are only seven texts<sup>6</sup> showing a contrast between *halzje<sup>-bhi</sup>* and *halzišša<sup>-bhi</sup>*. Here are some of the relevant contexts:

CTH 262:

1a) *IBoT* 1.36 i 65-66 (MH/MS)

*nu ha-at-ti-i-li ta-ĥa-ĥa hal-za-i ta-ĥa-ya-an-ma-za ha-at-ti-li* <sup>LÚŠU.I</sup> *hal-zi-iš-ša-an-zi*

'He (i.e. the palace attendant) calls out in Hattic "tahaya!". Tahaya (is how) one calls the barber in Hattic.' (Translation: Güterbock/van den Hout)

1b) *IBoT* 1.36 iii 36 (MH/MS)

*ku-i-na-an im-ma ku-in ERÍN<sup>MEŠ</sup> LUGAL-us hal-za-a-i*

'But if the king calls some foreign troops – either troops of the hostile Kaska or troops of Kummaha or whatever troops - ...' (Translation: Güterbock/van den Hout)

*Halzāi* in example (1a) means 'to call out' and is constructed without the suffix. *Halziššanzi* in the second sentence of example (1a) with a double accusative has the meaning 'to call A B (in a different language)'. In example (1b) *halzāi* means 'to call s.o.'.

In the 'Hippology' there are ten attestations of *halzišša<sup>-bhi</sup>* in double accusative constructions like the following in example (2a). Only example (2b) does not have the suffix. Here *halziĥhi* means 'to call s.o. / to summon s.o.':

Hippology:

2a) *KUB* 1.11 i 9 (MH/NS) - *CTH* 284.3.A

*ua-aĥ-nu-u-ua-ar-ma 6 hal-zi-iš-[š]a-an-zi*

'"Six laps" they call it'.

2b) *KUB* 29.55 i 5-6 (MH/MS) - *CTH* 285.1

*nu <sup>D</sup>Pi-ri-in[-ka]r [<sup>D</sup>IŠTAR ] hal-zi-iĥ-hi*

'Pirin[ka]r [(und) Šaušga] I am summoning.'

NS.

<sup>6</sup> These texts are *CTH* 6, *CTH* 262, *CTH* 263.A, *CTH* 373.A, *CTH* 422, *CTH* 476 and *CTH* 671.

In (3a) *ḫalziššanzi* is used in the construction with double accusative again, while in examples (3b) and (3d) *ḫalzāi* means 'to call s.th. out' and in example (3c) *ḫalzāi* is translated with 'she calls the gods in':

CTH 476:

3a) *KBo* 5.1 ii 46- 47 (NH)

VII NINDA IM.ZU *ki-it-ta-ri nu-za ŠA LÚ<sup>MEŠ</sup> pa-ti-li-e-eš ḫal-zi-iš-ša-an-zi*

'Seven loaves of leavened bread lie [there] – the *patili*-priests' share they call it.'

3b) *KBo* 5.1 iii 47 (NH)

*na-aš EGIR-pa ú-iz-zi nu ki-el-di ḫal-za-a-i*

'He comes back and calls (out): “*Keldi!*”'

3c) *KBo* 5.1 iii 48-49 (NH)

*nu-za MUNUS ka-at-ra-aš<sup>GIŠ</sup> BALAG da-a-i na-aš-ta DINGIR<sup>MEŠ</sup> an-da ḫal-za-a-i*

'The priestess takes a harp. Then she calls the gods in.'

3d) *KBo* 5.1 iv 25-26 (NH)

*na-an-kán šu-up-pa-i pi-di an-da pi-e-da-i nu ki-el-di ḫal-za-a-i*

'[Then the *patili*-priest takes the lamb from her] and brings it to a pure place. Then he calls (out): “*Keldi!*”'

All these examples share a clear distinction between the meaning of *ḫalzje<sup>-bhi</sup>* 'to call' and *ḫalzišša<sup>-bhi</sup>* in the meaning 'to call A B' as part of a construction with the double accusative (cf. van den Hout 1992 on Hittite double accusative constructions).

Attention should be given to the picture emerging from the absolute numbers of all the attestations: The ratio of *ḫalzje<sup>-bhi</sup>* and *ḫalzišša<sup>-bhi</sup>* is around 6 to 1 (i.e. 170 : 29) where it is used to mean 'to call', while the ratio of both in the meaning 'to call A B' is 1 to 4 (i.e. 7 : 29). In statistical terms this means that the distribution of *ḫalzje<sup>-bhi</sup>* and *ḫalzišša<sup>-bhi</sup>* in the meanings 'to call' and 'to call A B' yields a *p*-value of zero<sup>7</sup> which proves it is not random.

Table 1:

	<i>ḫalzje<sup>-bhi</sup></i>		<i>ḫalzišša<sup>-bhi</sup></i>
<b>Type I: 'to call'</b>	<b>170</b>		<b>29</b>
OS	8	>	7
MS	23	>	4
NS	139	>	18

<sup>7</sup> In statistical significance testing, the *p*-value accounts for the probability of a test statistic. If the *p*-value is less than 0.05 or 0.01 (corresponding respectively to a 5% or 1% chance), the result is said to be statistically significant.

<b>Type II: 'to call A B'</b>	<b>7</b>		<b>29</b>
OS	0		0
MS	0	<	4
NS	7	<	25

*p*-value: 0

It can be stated that the domain of the *-šša*-formation is the construction with the double accusative. On the first glance this looks like a simple lexicalisation, but a closer look at the attestations reveals different construction types, which help to display several interesting details as well as significant patterns. It has to be added that the construction types introduced in what follows are directly deduced from the attested accounts. Thus, the meaning of *halzje<sup>-bbi</sup>* 'to call' shows two different construction types: The meaning 'to call s.o. / to summon s.o.' in examples (1b), (2b) and (3c) correlates with animate objects (construction type Ia), while the meaning 'to call (s.th.) out' in examples (3b) and (3d) is attested with inanimate objects only (construction type Ib).

The double accusative construction type II is represented by examples (1a), (2a) and (3a).<sup>8</sup> As the split up table shows, the *p*-value stays the same: the absolute numbers are extremely statistically significant.

Table 2:

	<i>halzje<sup>-bbi</sup></i>		<i>halzišša<sup>-bbi</sup></i>
<b>type Ia: 'to call s.o.'</b>	<b>89</b>		<b>9</b>
OS	6	>	0
MS	13	>	2
NS	70	>	7
<b>type Ib: 'to call s.th.'</b>	<b>81</b>		<b>20</b>
OS	2	<	7
MS	10	>	2
NS	69	>	11
<b>type II: 'to call A B'</b>	<b>7</b>		<b>29</b>
OS	0		0
MS	0	<	4
NS	7	<	25

*p*-value: 0

There are two additional details which may help to develop further criteria for the present investigation:

<sup>8</sup> As the *HW*<sup>2</sup> shows, many more construction types are possible with *halzje<sup>-bbi</sup>*. Here only the presumably suffix-relevant ones shall be taken into account.

- The OH evidence is astonishingly clear: Type Ia 'to call s.o.' is only attested with the unmarked simplex (6x), while the expression 'to call s.th. out' (type Ib) occurs mainly with the suffix (7x versus 2x). The type-Ia-expression 'to call s.o.' affects the object to a higher degree than the type-Ib-expression 'to call s.th. out': Here the object denotes the effect of the verbal action.
- For MH and NH, the distribution between construction type Ia and Ib seems to be quite insignificant statistically. But it can be stated that the type-Ia-expression 'to call a god' (in opposition to 'to call a human being') is only attested once out of 25 instances with the suffix. On the basis of the hierarchy of animacy belonging to Simon Dik (1989) the affectedness of a god is to be judged higher than the affectedness of an ordinary mortal (cf. Conti 1996, Daues 2006).

Both details point to a correlation of the suffix *-šša-* and a low degree of affectedness of the object.

In terms of transitivity (of which the affectedness of the object is one parameter defined in Hopper / Thompson 1980) one more piece of information on *halzje<sup>-bhi</sup>* fits the mosaic: *halzje<sup>-bhi</sup>* is quite often attested in the passive (from 177 attestations of *halzje<sup>-bhi</sup>* 36 attestations show a passive construction). Among these 36 passive attestations there is not one *-šša-*formation. Table 3 confirms that the construction of type Ia is the most object-affected (i.e. the most transitive) one, since it shows the largest number of passive formations, whereas the less transitive types Ib and II gradually decrease their number. This fits with argumentation that the higher the degree of transitivity in an active construction, the more likely it is that it will switch into a passive construction. One would not expect a low-transitivity action to be expressed with a passive formation. Examples like (2a) and (3a) illustrate active constructions of *halzišša<sup>-bhi</sup>* used in the same way as passives.

Table 3:

	<i>halzje<sup>-bhi</sup></i>	<i>halzje<sup>-a</sup></i>
<b>type Ia: 'to call s.o.'</b> <b>(total: 89)</b>	<b>67</b>	<b>22</b>
OS	6	0
MS	12	1
NS	49	21
<b>type Ib: 'to call s.th.'</b> <b>(total: 81)</b>	<b>68</b>	<b>13</b>
OS	2	0
MS	10	0
NS	56	13
<b>type II: 'to call A B'</b>	<b>6</b>	<b>1</b>

<b>(total: 7)</b>		
OS	0	0
MS	0	0
NS	6	1

With the information gathered from the appearance of the suffix *-šša-* in combination with various construction types, it is possible to create a graph like table 4 below. The crucial parameter with which the suffix *-šša-* seems to correlate is the affectedness of the object.

Table 4:

<b>type Ia</b>		<b>type Ib</b>		<b>type II</b>
'to call s.o.'	>	'to call s.th. (out)'	>	'to call A B'
<b>+ affectedness</b>		<b>- affectedness</b>		<b>-- affectedness</b>
<b>-- suffix <i>-šša-</i></b>		<b>- suffix <i>-šša-</i></b>		<b>+ suffix <i>-šša-</i></b>

The more<sup>9</sup> the object is affected by the verbal action, the lower is the probability of finding a verbal construction with the suffix *-šša-*. Thus the Hittite suffix *-šša-* seems to be a marker for a low degree of affectedness of the object.

## 2. *ije<sup>-mi</sup> / išša<sup>-bhi</sup>*

The semantic concept of *ije<sup>-mi</sup>* 'to make' is quite different from *halzie<sup>-bhi</sup>* 'to call', but nonetheless both verbal pairs belong to the small group of Hittite verbs which allow constructions with double accusative (cf. van den Hout 1992). A contrastive analysis shows the interesting fact that the suffix form *išša<sup>-bhi</sup>* is not linked to the double accusative construction, as the following examples may show. Here, three examples are cited from 20 text(version)s<sup>10</sup> which contrast attestations of simplex and *-šša-*formations.

In example (4a) the double accusative construction 'to make them boundaries of the sea' does not have a suffix, while the expression 'to do evil things'in (4b) shows a *-šša-*formation:

CTH 19.II.A:

(4a) *KBo* 3.1 i 27 (OH/NS)

<sup>9</sup> The double minus in the graph means something like 'even less' – it is used to describe a tendency, since we are not dealing with an absolute rule but with relative correlations only.

<sup>10</sup> These texts are CTH 6, CTH 19.II.A, CTH 42.A, CTH 61.II.5.B, CTH 67, CTH 68.C, CTH 81.A, CTH 147, CTH 264.A, CTH 291.I.a.A, CTH 291.I.b.A, CTH 291.III, CTH 292.II.a.B, CTH 373.A, CTH 378.II.A, CTH 378.C, CTH 389, CTH 402.A, CTH 496 and CTH 525.7.

*nu-uš a[-ru-n]a-aš ir-ḥu-uš iet*

'He made them boundaries of the sea.'

(4b) *KBo* 3.1 ii 61 (OH/NS)

*ki-i-ma i-da-a-la-u-ya ud-da-a-ar ku-i-e-ēš e-eš[(-š)]a-an-zi*

'Who does these evil things ...'

Example (5a) with double accusative again is formed without suffix, while the suffix is attested with the expression 'to do s.th. well / to treat s.o. well' in (5b). But the suffix is absent in (5c): The expression 'to do evil', which in (4b) was combined with the suffix, now shows the simplex:

*CTH* 42.A:

(5a) *KBo* 5.3 iii 65 (MH?/NS)

*DAM-an-ma-an-za-an le-e i-ia-ši*

'But do not make her your wife!'

(5b) *KBo* 5.3 iv 29-30 (MH?/NS)

*nu ma-a-an šu-me-eš-ma SIG<sub>5</sub>-in iš-ša-at-te-ni nu <sup>D</sup>UTU<sup>šl</sup>-in*

*KUR <sup>URU</sup>Ha-at-ti-ia aš-šu-li pa-aḥ-ḥa-aš-te-ni <sup>D</sup>UTU<sup>šl</sup>-ia-aš-ma-aš SIG<sub>5</sub>-in  
*iš-ša-aḥ-h[i]**

'I you act well, i.e. if you kindly protect the land of Ḫatti, then I shall also treat you well.'

(5c) *KBo* 5.3 iv 31 (MH?/NS)

*ma-a-an su-me-eš-ma ku-ya-at-ka i-da-a-lu i-ia-at-te-ni*

'But if you do any evil ....'

In (6a) the suffix is attested with the expression 'exact revenge'<sup>11</sup>, while the attestation without the suffix in (6b) shows a double accusative construction:

*CTH* 61.II.5.B:

(6a) *KBo* 4.4 ii 10-11 (NH)

*li-in-ki-ia-as-ya-ra-aš DINGIR<sup>MEŠ</sup> [ ]-pát e-eš-ša-an-du*

„The oath gods shall exact [their revenge]!“

(6b) *KBo* 4.4 iii 49 (NH)

*nu-ya-an-na-aš-za ÉRIN<sup>MEŠ</sup> ANŠE.KUR.RA<sup>HLA</sup> i-ia*

„Make us your troops and horses[men]!“

<sup>11</sup> The supplement 'revenge' is sure in this specific context.

In absolute numbers the distribution looks even more surprising:  $\bar{i}\check{s}\check{s}a\text{-}bbi$  is even less often attested in the double accusative construction than  $i\check{e}\text{-}mi$  as one can see in table 5. The proportion is 3 to 2 (i.e. 120 : 79) for the meaning 'to make' and 3.5 to 1 (i.e. 17 : 5) for the double accusative construction 'to make A into B', but the  $p$ -value 0,1196 of the absolute numbers (cf. table 5) is statistically not significant.

Table 5:

	$i\check{e}\text{-}mi$		$\bar{i}\check{s}\check{s}a\text{-}bbi$
<b>Type I: 'to make'</b>	<b>120</b>	>	<b>79</b>
OS	7	>	5
MS	10	>	8
NS	103	>	66
<b>Type II: 'to make A into B'</b>	<b>17</b>	>	<b>5</b>
OS	1	>	0
MS	3	>	2
NS	13	>	3

$p$ -value: 0,11096

If we split the meaning 'to make' into more specific types as we did above for  $halzje\text{-}bbi$ , the pattern becomes more interesting.

The construction with the meaning 'to make s.th. / to create s.th.' illustrated by examples (7a) and (7b) implies a high degree of transitivity: Since the object denotes the effect of the verbal action (and represents its visible result), the object is strongly affected.<sup>12</sup> In the textpassage which follows, this type will be labeled as construction type Ia:

(7a) *KUB 15.34 iii 24'-25' (MH/MS) - CTH 483.I.A*

*pé-ra-an kat-ta-ma VII TÚL<sup>MEŠ</sup> i-ja-an-zi na-at ú-i-te-ni-it šu-un-na-an-zi*

'Before [scil. the table] they make seven wells and fill them with water.'

(7b) *KUB 21.17 ii 7-8 (NH) - CTH 086.1.A*

*nu-uš-ši É<sup>MEŠ</sup>.DINGIR<sup>MEŠ</sup> I-NA<sup>URU</sup> Ú-ri-ki-na i-ja-nu-un*

'I have made temples for her at Urikina.'

Concerning the usage of  $i\check{e}\text{-}mi$  and  $\bar{i}\check{s}\check{s}a\text{-}bbi$ , the Hittite texts make a difference between 'to create s.th.', as in construction type Ia, and 'to perform s.th.', as in construction type Ib. In the second case, the object is relatively less affected by the verbal action, it is only reproduced by the verbal action

<sup>12</sup> Here the effect of the verbal action differs from the  $halzje\text{-}bbi$ -type Ib 'to call s.th. out' which is a non-telic verbal action.



according to a template. Objects of this construction type are rituals, prayers, services, etc.:

(8a) *KUB* 13.2 iii 4-5 (MH/NS) - *CTH* 261.B

*nu-uš-ša-an A-NA TÚL SÍSKUR ki-it-ta-ri na-at-ši e-eš-ša-an-du*

'A rite is (on the books) for the fountain: (then) they shall perform it for it (the fountain).'

(8b) *KBo* 6.3 ii 45-46 (OH/NS) - *CTH* 291.I.b.A

*nu*<sup>GIŠ</sup>[TUK]UL *har-zi ša-ah-ḥan-an[-na?] iš-ša-i*

'He shall hold the TUKUL-obligation and perform the *šahhan*-services.'

(Translation: Hoffner)

Construction type Ic also displays a low degree of transitivity: Although it is only a small and fairly insignificant group, it consistently shows a higher appearance of *-šša-* in the texts: the construction with the modifying adverb SIG<sub>5</sub>-*in* in the meaning 'to treat s.o./s.th. well'. The affectedness of the object is quite low, since the object is not completely affected, it is more about a superficial modification of the object, cf. example (5b).

Judging by the number of simplex attestations, the double accusative construction type II shows the highest degree of transitivity. This may seem slightly strange following our detailed analysis of *ḥalziē-bhi* in (1.), but if one takes a look at the content of the constructions, the picture becomes more reasonable. If one says 'I am making you president of the United States' this does have an incredible effect upon the object (and upon the rest of the world), – provided that the subject is empowered to do so. But the utterance 'I am calling you president of the United States' will not influence the object nor anyone else. In the same way, *ḥalziē-bhi* in the low O-affected-construction type with double accusative (examples (2a) and (3a)) often displays the suffix *-šša-*, while *iē-mi* in the highly O-affected construction with double accusative (examples (4a), (5a) and (6b)) does not tend to display suffix *-šša-*.

The following table sorts the construction types along the number of *-šša-* attestations from their highest count (type Ic) down to the lowest count of *-šša-* formations with the double accusative (type II).

Table 6:

	<i>iē-mi</i>		<i>šša-bhi</i>
<b>type Ic: 'to treat (well)'</b>	<b>7</b>	<b>&lt;</b>	<b>10</b>

OS	0		0
MS	1	<	2
NS	6	<	8
<b>type Ib: 'to perform'</b>	<b>26</b>	<	<b>33</b>
OS	0	<	2
MS	1	>	0
NS	25	<	31
<b>type Ia: 'to create'</b>	<b>87</b>	>	<b>36</b>
OS	7	>	3
MS	8	>	6
NS	72	>	27
<b>type II: 'to make A into B'</b>	<b>17</b>	>	<b>5</b>
OS	1	>	0
MS	3	>	2
NS	13	>	3

*p*-value: 0,0006

These functionally relevant subgroups allow for a new statistical test: With a *p*-value of 0,0006 table 6 is now statistically significant. This means that the affectedness of the object (as in the case of *halzje<sup>-bbi</sup> / halzišša<sup>-bbi</sup>*) can be confirmed here as the parameter along which the attestation of the Hittite suffix *-šša-* can be lined up. Since we are dealing with functional categories, we cannot expect clear and absolute results but have to accept a cline with zones of transition. Table 7 is a model of the correlation between the construction type and suffix attestation.

Table 7:

<b>type Ic</b>		<b>type Ib</b>		<b>type Ia</b>		<b>type II</b>
'to treat (well)'	>	'to perform'	>	'to create'	>	'to make A into B'
<b>-- affectedness</b>		<b>- affectedness</b>		<b>+ affectedness</b>		<b>++ affectedness</b>
<b>++/- suffix -šša-</b>		<b>+/- suffix -šša-</b>		<b>-/+ suffix -šša-</b>		<b>--/+ suffix -šša-</b>

Where the object is less<sup>13</sup> affected by the verbal action, the tendency is higher for the suffix *-šša-* to be used in the construction. The Hittite verbal suffix *-šša-* correlates with the transitivity parameter affectedness of the object discussed in Hopper / Thompson 1980):

<sup>13</sup> The plus and minus additions again reflect tendencies.

Table 8:	Kinesis:	[- action]	}	[- transitivity]
	Aspect:	[+ imperfective aspect]		
	Punctuality:	[- punctuality]		
	Volitionality:	[- volitionality]		
	Affirmation:	[- affirmation]		
	Mode:	[- realis]		
	Agency:	[- agency]		
	<b>Affectedness of O:</b>	<b>[- O affectedness]</b>		
	Individuation of O:	[- O individuation]		cf. Hopper / Thompson (1980)

Among the nine parameters Hopper / Thompson defined the term 'transitivity' with, the parameter 'affectedness of the object' seems to be crucial for the usage of the suffix *-šša-* in Hittite: this suffix is the marker for low degree of object affectedness. Both the well-attested verbs *ḫalziē<sup>-bhi</sup>* / *ḫalzišša<sup>-bhi</sup>* (cf. 1) and *ije<sup>-mi</sup>* / *išša<sup>-bhi</sup>* (cf. 2) confirm this observation.

Some additional observations on the two remaining verbs in *-šša-* will be discussed in the following section, within the context of the results outlined thus far.

### 3. *šije<sup>-bhi</sup>* / *šišša<sup>-bhi</sup>*

In the 76 instances of the simplex *šije<sup>-bhi</sup>* 'to press; to throw', the *-šša-* form is only attested six times (according to the dictionaries), most commonly in the meaning 'to seal, to imprint'. In addition, at least 15 attestations of *šije<sup>-bhi</sup>* exist with the suffix *-ške-* from MH times onwards. Table 9 demonstrates the number of available attestations:

Table 9:

	<i>šije<sup>-bhi</sup></i>	<i>šišša<sup>-bhi</sup></i>	<i>šiške<sup>-bhi</sup></i>
<b>total:</b>	<b>76</b>	<b>6</b>	<b>15</b>
OS <sup>14</sup>	-	-	-
MS	12	1	1
NS	54	5 <sup>15</sup>	14

<sup>14</sup> Kloekhorst (2008: 963) mentions an attestation from OH times onwards, but his own listing (2008: 757) shows that this refers to OH/NS.

<sup>15</sup> Two of these six instances are mediopassive forms. None of the other *-šša-* formations occur with mediopassive endings.

The *-šša*-formation, in comparison to the simplex, is only rarely attested (cf. *ħalzje<sup>-bhi</sup>* / *ħalzišša<sup>-bhi</sup>* and *ije<sup>-mi</sup>* / *išša<sup>-bhi</sup>* for a different type of relation of simplex and suffixes), but the *-ške*-form shows a significant number of attestations.<sup>16</sup>

There are a number of possible interpretations:

- a) the attestation is scarce and the proportions should not be over-emphasised.
- b) the *-šša*-formation was lexicalised earlier with the meaning 'to imprint' and a new formation with suffix (in this case the more fashionable *-ške-*) had to be coined to retain the relation with the simplex (cf. Oettinger 2002).
- c) the verb *šišša<sup>-bhi</sup>* (cf. Oettinger 2002, Kloekhorst 2008) does not reflect an *-šša*-formation but a reduplicated formation *\*si-sh<sub>1</sub>-sé* (cf. Kimball 1987: 180, *LIV*<sup>2</sup>: 517). In this case, the verb is not relevant to this contribution.

In fact, there are too few attestations available for any definitive statement to be made (cf. 3a). But comparing the relationship between *šije<sup>-bhi</sup>* / *šišša<sup>-bhi</sup>* and the profiles of *ħalzje<sup>-bhi</sup>* / *ħalzišša<sup>-bhi</sup>* and *ije<sup>-mi</sup>* / *išša<sup>-bhi</sup>*, it seems to be necessary to find an extra solution: Since the lexicalisation of *šišša<sup>-bhi</sup>* in the meaning 'to imprint' suggested by Oettinger (2002: 474) cannot be confirmed by all the six instances investigated<sup>17</sup> (cf. 3b), the independent solution (cf. 3c) which implies that *šišša<sup>-bhi</sup>* is not to be discussed in terms of the *-šša*-formation, seems to be more attractive. But we should take a closer look at the attestation of *šišša<sup>-bhi</sup>* before drawing a conclusion:

9a) *KBo* 3.1 iii 43-44<sup>18</sup> (OH/NS)

*nu-kán ħal-ki-uš EGIR-an ma-a[(k-nu-nu-un) .....]x<sup>LÚ.MEŠ</sup> APIN.LÁ A.ŠÀ A.GÀR<sup>HLA</sup>  
a-pé-e-pát ka<sup>2</sup>-a<sup>2</sup>[-ša<sup>2</sup> .....] š[i-e-eš-ša-an-du<sup>19</sup>*

'And again I multiplied the corn [...]x the farmers these fields (and) meadows,  
lo[ok<sup>2</sup> .... sh]all seal.'

9b) *KUB* 1.16 iii 57-58 (OH/NS)

*nu-za-an [ud-da-]a-ar-me-et ħa-at-ta-<ta>-me-et kar-ta ši-iš-at-ti*

<sup>16</sup> This is unusual, because the other *-šša*-verbs are almost never attested with the suffix *-ške-* and these few attestations are all late NH. In this way, *ħalzje<sup>-bhi</sup>* shows six late attestations of *-ške-* and with *ije<sup>-mi</sup>* only three suffix formations with *-ške-* are attested. Unfortunately, many of them are in corrupt contexts so that this topic can not be discussed further in terms of a functional analysis.

<sup>17</sup> The instances *KBo* 3.1 iii 44, *KUB* 11.1 iii 10, *KUB* 31.2(+) iii 10 (all *CTH* 19) all have the meaning 'to seal (corn)' and *KUB* 1.16 iii 58 (*CTH* 6) means 'to imprint (words into the heart)', but *KUB* 8.22(+) ii 17 and *KUB* 8.22(+) iii 1 (both *CTH* 535) show a mediopassive form *šiššandari* with the preverb *anda*, meaning 'to flash', along with the subject 'stars'.

<sup>18</sup> Cf. also the parallel texts *KUB* 11.1 iii 10 (OH/MS) and *KUB* 31.2 + *KUB* 31.17 iii 10 (OH/NS).

<sup>19</sup> The transliteration refers to Hoffmann (1984).

'You shall imprint my words and my wisdom into your heart.'

The active attestations in the meaning 'to seal, to imprint' go very well with the assumption that the *-šša-*formation encodes a lower degree of object affectedness: In (9a) the object 'corn' is not sealed itself but it is attached with a seal and in (9b) the (implicit) object 'heart' is abstract. Therefore in both cases the objects are less affected by the verbal action than the concrete object 'clay tablet' in example (9c):

9c) *KUB* 13.4 ii 44 (pre-NH/NS)

*na-at-ši šī-ia-an-du*

'Let them seal it (*scil.* the tablet) for him.'

As the previously defined function of the suffix *-šša-* clarifies the data we no longer need to reckon with a lexicalisation of *šišša<sup>bhi</sup>*.

It is the two mediopassive forms which do not seem to fit the idea. Combined with the preverb *anda*, *šiššandari* means 'to flash' which is semantically quite close to 'throw':

9c) *VBoT* 70 + *KUB* 8.22 ii 16-17<sup>20</sup> (?/NS)

[*m*]a-a-an-ša-an ne-pí-ši MUL<sup>H.A</sup> an-da *šī-iš-ša-an-da-ri*

'If stars flash in the sky, ...'

Here one etymological remark may cast some light upon the somewhat complicated situation in Hittite. The Hittite verb in question conflates two PIE verbs, the root *\*seh<sub>1</sub>-* 'to sow, to press, to seal' (cf. *LIV*<sup>2</sup>: 517) and the root *\*seh<sub>1</sub>(i)-* 'to throw, to shoot' (cf. *LIV*<sup>2</sup>: 518). This makes a synthesis possible: *šišša<sup>bhi</sup>* can be analysed as a *-šša-*formation of *\*seh<sub>1</sub>-* 'to press' in the case of the active forms (9a) and (9b), and *šišša<sup>bhi</sup>* may reflect a reduplicated formation of the root *\*seh<sub>1</sub>(i)-* 'to throw' in the case of the mediopassive forms in (9c).<sup>21</sup> The fact that *-šša-*formations are never attested with mediopassive endings underlines this interpretation. Nonetheless it has to be stressed again that the limited availability of data precludes certainty.

<sup>20</sup> Cf. also the parallel text *VBoT* 70 + *KUB* 8.22 iii 1.

<sup>21</sup> This brilliant idea I owe to H.Craig Melchert and I want to thank him a lot for this elegant solution as well as for the opportunity to incorporate it at a late stage.

4. *uarrae<sup>-mi</sup>* / *uarrišša<sup>-bhi</sup>*

The attestation with this verbal pair is very problematic.<sup>22</sup> The *-šša*-formation is attested 22 times, while the formation without suffix is attested only three times. All attestations are NH/NS:

Table 10:

	<i>anda uarrae<sup>-mi</sup></i>	<i>(anda)<sup>23</sup> uarrišša<sup>-bhi</sup></i>
<b>total:</b>	<b>3</b>	<b>22</b>
OS	-	-
MS	-	-
NS	3	22

Again, the numbers allow for different interpretations:

- a) attestations are too rare and the proportions should not be over-emphasised.
- b) both forms are not part of a relationship between 'simplex' and 'suffix' formation: *uarrae<sup>-mi</sup>* is a denominal formation of *uarrī-* 'help', meaning 'to make help (come)' whereas *uarrišša<sup>-bhi</sup>* originates from a Luwian verb, which is not attested as Starke (1990: 155-6) assumes.
- c) both verbs show a clear relation to each other and form a verbal pair. This relation fits into the concept of the degree of object affectedness.

Of course, the attestations do not suffice for a functional analysis (cf. 4a), but the few instances show simplex and *-šša*-formation within one text (*CTH* 61). The simplex actually appears only in *CTH* 61. The contrast with the suffix formation seems to point to a synchronic coexistence between the two forms (cf. 4c), no matter how the diachronic perspective might be judged (cf. 4b) – as the following examples show:

*CTH* 61:

(10a) *KBo* 4.4 ii 26 (NH/NS)

[*nu-ya<sup>m</sup> Nu-u-ya-an-za-aš GAL GEŠTIN ÉR*]IN<sup>MEŠ</sup> ANŠE.KUR.RA<sup>HLA</sup> *an-da uar-ar-ra-iz-zi*

'[And Nuwanzaš, Chief of the wine,] brought troops and horse[men].  
for help.'

(10b) *KBo* 5.8 i 9-10 (NH/NS)

<sup>22</sup> For a single attestation *u-ur-ri-ir* in OH (*KBo* 3.60 ii 7) cf. Watkins 1975 and García Ramón 2006.

<sup>23</sup> All simplex attestations have the preverb *anda*, while the suffix formation does not.

*na-at IŠ-TU ÉRIN<sup>MEŠ</sup> an-da ya-ar-ri-iš-ša-an-zi*

'And they came to help with auxiliary troops.'

Example (10a) is a causative construction of example (10b): They form a perfect minimal pair. From a semantic point of view it can be observed that the *-šša-* formation means 'to help' (without an object), while the formation without *-šša-* has an object (i.e. troops and horse[men]). The meaning can be interpreted as 'to bring x for help' and serves as a causative formation to the *-šša-* verb, which shows the object of the simplex encoded as instrumental. Again the affectedness of the object is high in the case of the simplex with causative content and low in the case of the suffix formation with intransitive content. If one accepts this interpretation, the verbal pair in question can well fit into the scenario.

With this verbal pair it becomes quite clear how closely the affectedness of the object is linked to transitivity and how easily the subparameter can change shape according to the particular verb and its meaning(s).<sup>24</sup>

5. Conclusion: The two verbal pairs (*halziē<sup>bhi</sup> / halzišša<sup>bhi</sup>* and *iē<sup>mi</sup> / išša<sup>bhi</sup>*), which are well-attested as simplex and suffix formations with *-šša-*, both show constructions with double accusative. These constructions are very rare in Hittite. More surprising is the fact that the verb *halziē<sup>bhi</sup>* with the double accusative construction 'to call A B' is remarkably often attested with the suffix *-šša-*, while the double accusative construction with the verb *iē<sup>mi</sup>* 'to make A into B' is only rarely attested with *-šša-*. But, while the construction 'to call A B' only has a low degree of object affectedness, the construction 'to make A into B' shows a highly affected object. The relevance of the criterion of object affectedness can also be observed through the other construction types both verbs show: The presence (or: absence) of the Hittite suffix *-šša-* groups the different construction types along the parameter of object affectedness. In this way, *-šša-* might be interpreted as a marker of a low degree of object affectedness in these pairs.

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<sup>24</sup> This might explain the way the suffix changed its function: In other IE languages the same *s*-formation encodes functions like future, desiderative, conjunctive etc. all of which share a low degree of transitivity according to Hopper / Thompson (1980; cf. table 8). In Hittite, the suffixes *-ške-* and *-anni-* are assumed to share the function 'imperfectivity' with the suffix *-šša-*. If the observation (*-šša-* encoding a low degree of affectedness of the object) is correct, it is quite plausible that other subfunctions correlating with the low degree of transitivity (like volitionality and mode) may occur with the suffix.

## References:

- Conti Jimenez, Luz (1996). *Verbos de movimiento en griego homérico y en védico: contribución al estudio del locativo indoeuropeo*. Unpublished Ph.D.dissertation, Universidad Autónoma de Madrid.
- CHD* = *The Hittite Dictionary of the Oriental Institute of the University of Chicago*. Güterbock, Hans G. / Hoffner, Harry A. (eds). Chicago: The Oriental Institute of the University of Chicago. 1980ff.
- Dardano, Paola / Marazzi, Massimiliano (1996). *Textindex zum Chicago Hittite Dictionary (Volume L-N, 1980-1989)*. Napoli: Instituto Universitario Orientale.
- Daues, Alexandra (2006). On the Function of the Mediopassive Perfect in the Homeric Epics. In: *Word Classes and Related Topics in Ancient Greek*. Proceedings of the Conference on 'Greek Syntax and Word Classes'. Crespo, Emilio / de la Villa, Jesus / Revuelta, Antonio R. (eds). Louvain-la-Neuve: Peeters. 257-272.
- Dik, Simon C. (1989). *The Theory of Functional Grammar*. Part I: The Structure of the Clause. Dordrecht: Foris Publications.
- García Ramón, José Luis (2006): Hitita *ṽarr-* 'ayudar' y *karṽe<sup>-mi/ta</sup>* 'mostrar benevolencia', hom. ἤρα φέρειν 'dar satisfacción', IE \**uerH-* 'favorecer' y \**ǵ<sup>h</sup>er(H)-* 'estar a gusto, desear'. In: *Studi linguistici in onore di Roberto Gusmani*. Bombi, Raffaella / Cifoletti, Guido / Fusco, Fabiana / Innocente, Lucia / Orioles, Vincenzo (eds). Alessandria: Edizione dell'Orso. 825-846.
- Güterbock, Hans G. / van den Hout, Theo P.J. (1991). *The Hittite Instruction for the Royal Bodyguard (AS 24)*. Chicago: The Oriental Institute.
- HED* = *Hittite Etymological Dictionary (Trends in Linguistics, Documentation)*. Berlin/New York/[Amsterdam]: Walter de Gruyter. 1984ff.
- Hoffmann, Inge. 1984. *Der Erlaß Telipinus*. TdH 11. Heidelberg: Carl Winter Universitätsverlag.
- Hoffner, Harry A. / Melchert, H. Craig (2003). A Practical Approach to Verbal Aspect in Hittite. In: de Martino, Stefano (ed.). *Anatolia Antica*. Studi in memoria di Fiorella Imparati. Eothen 11. Firenze: LoGisma editore. 377-390.
- Hopper, Paul. J. / Thompson, Sandra A. (1980). Transitivity in Grammar and Discourse. *Language* 56 (1980). 251-299.
- HW<sup>2</sup>* = *Hethitisches Wörterbuch*. Zweite, völlig neu bearbeitete Auflage auf der Grundlage der edierten hethitischen Texte. Friedrich, Johannes / Kammenhuber, Annelies (eds). Heidelberg: Winter 1975ff.
- Jasanoff, Jay H. (2003). *Hittite and the Indo-European Verb*. New York: Oxford University Press



Inc.

*KBo* = *Keilschrifttexte aus Boghazköi*. Leipzig: Hinrichs'sche Buchhandlung. 1916-1923. Berlin: Gebr. Mann Verlag. 1954ff.

Kimball, Sara E. (1987). Initial *\*h<sub>1</sub>s-* in Hittite. In: Calvert Watkins (ed.), *Studies in Memory of Warren Cowgill (1929-1985)*, 160-181. Berlin/New York: de Gruyter.

Kloekhorst, Alwin (2008). *Etymological Dictionary of the Hittite Inherited Lexicon* (IEED 5). Leiden: Brill.

*KUB* = *Keilschrifturkunden aus Boghazköi*. Berlin: Akademie Verlag. 1921-1990.

*LIV*<sup>2</sup> = Rix, Helmut et al. 2001. *Lexikon der Indogermanischen Verben. Die Wurzeln und ihre Primärstambildungen*. Zweite, erweiterte und verbesserte Auflage. Wiesbaden: Reichert.

Melchert, H.Craig (1998). Aspects of Verbal Aspect in Hittite. In: *Acts of IIIrd International Congress of Hittitology*. Alp, Sedat / Süel, Aygül (eds). Ankara: Aralık. 413-418.

Oettinger, Norbert (2002). *Die Stammbildung des hethitischen Verbums*. Nachdruck mit einer kurzen Revision der hethitischen Verbalklassen (DBH 7). Dresden: Verlag der TU Dresden.

Starke, Frank. (1990). Untersuchungen zur Stammbildung des keilschrift-luwischen Nomens (StBoT 31). Wiesbaden: Reichert.

van den Hout, Theo P. J. (1992). Remarks on Some Hittite Double Accusative Constructions. In: *Per una grammatica ittita* (StMed 7). Carruba, Onoforio (ed.). Pavia: Gianni Iuculano Editore. 275-304.

Watkins, Calvert (1975): *Some Indo-European verb phrases and their transformation*. Münchner Beiträge zur Sprachwissenschaft 33. 89-109.

Watkins, Calvert (1997). Delbrück and the syntax of Hittite and Luvian: predictive power. In: *Berthold Delbrück y la sintaxis indoeuropea hoy*. Actas del Coloquio de la Indogermanische Gesellschaft. Crespo, Emilio / García Ramón, José Luis (eds.). Madrid-Wiesbaden: Reichert. 611-630.