

The Old Hittite and the Proto-Indo-European tense-aspect system

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Abstract: Building on Melchert’s observation that in Old Hittite narrative texts an aspectual system seems to be used that is different from the aspectual system as found in the majority of Hittite texts (Melchert 1998), this article discusses the nature of the tense-aspect system of Proto-Indo-European, especially on the basis of a comparison between the Sanskrit and Hittite verbal systems (following observations and analyses by Pooth 2009). It is argued that the tense-aspect system of the Old Hittite narrative texts as described by Melchert may directly go back to the system that can be reconstructed for early Proto-Indo-European, namely a system in which there was no distinction in tense, but rather a distinction between progressive and non-progressive aspect.

1. Introduction: Hittite aspect

In a 1998 paper on aspect in Hittite, Craig Melchert demonstrated that the basic tense-aspect system of Hittite, as can be deduced from the vast majority of Hittite texts, works as follows. Basic verbal stems are in principle neutral to aspect: they can be imperfective or perfective depending on the context and their own semantic core. Specific imperfective aspect can however be expressed by deriving from the basic verbal stem so-called imperfective stems by adding one of the suffixes *-ške/a^{-zi}*, *-šš(a)⁻ⁱ* or *-anna/i⁻ⁱ*.¹ According to Melchert (1998: 414-6), these imperfective stems can have progressive, iterative, durative, distributive, and inceptive meanings.

This is not the full story, however. As Melchert (1998: 416-7) explains, in several OH narrative texts (like the Zalpa-text or the Myth of Telipinu) a different aspectual system seems to be used. In these texts, which tell of events having taken place in the past, not only past tense forms are being used, but also present tense ones. However, these present tense forms are, according to Melchert, not “mere instances of the so-called “historical present” of “vivid narration” [since in Middle and New Hittite texts these] pattern quite differently” (1998: 417). Instead, Melchert observes that in the passages from Old Hittite narratives “the formal present tense is used to indicate unbounded or open-ended states and activities”, whereas “the formal preterite [...] expresses events” (1998: 416).

As an example, Melchert gives the following passage from the Zalpa-text (KBo 22.2 obv. 6-8 (OH/OS)), in which the preterite forms are underlined, and the present forms are given in bold:

- (6) ... nu M[UNUS.LUGA]L *namma* 30 MUNUS.DUMU *hāšta*
(7) *š=uš apašila šallanušket* DUMU.NITA^{MES} *ā[pp]a[?] URU* *Nēša ianzi*
(8) nu ANŠE-in *nannianzi mān URU* *Tama[rmara] arer nu taršikanzi*

“(6) The queen in turn gave birth to thirty daughters, (7) and she raised them herself. (Meanwhile) the sons **were going back** to Neša (8) and **driving** a donkey. When they arrived in Tamarmara, they **said**: (direct speech follows)” (translation by Melchert 1998: 416).

Compare also the following passage from the Myth of Telipinu (KUB 17.10 i 12-18 (OH/MS)):

- (12) ... ^d*Telipinuš=a pait marmarri andan*
(13) *ulišta šēr=a=šše=ššan halenzu huuaiiš nu namma*
(14) *halkis ZÍZ-tar ŪL māi nu=za namma GU₄^{HLA} UDU^{HLA} DUMU.LÚ.U₁₉.LU^{MES} ŪL*
(15) *armahhanzi armauanteš=a kuieš nu=za apija ŪL haššanzi*

- (16) [*nu[?] H*]UR.SAG^{DIDL.HLA} *hāter* GIŠ^{HLA} *-ru hāzta n=ašta parašduš ŪL*

¹ Cf. also Hoffner & Melchert 2008: 317-8. It has in the meantime become clear that also reduplication can be used as a morphological marker of imperfectivity, cf. Dempsey 2015.

- (17) *uēzzi uēšaēš hāter* PÚ^{HLA} *hāzta nu* KUR-*ja andan*
 (18) *kāšza kīšati* DUMU.LÚ.U₁₉.LU^{MES} DINGIR^{MES} -š=a *kištantit harkijanzi*

“(12) And Telipinu went into the moor (13) and disappeared, and a *halenzu*-plant grew on top of him. Now (14) barley (and) wheat **were** no longer **ripening**; cows, sheep and humans (15) **were** no longer **becoming pregnant**. And those that were pregnant **did not give birth** then.

The mountains dried up, the trees dried up, and shoots **were** not (17) **coming up**. The meadows dried up, the wells dried up and in the land (18) a famine broke out. Humans and gods **were starving** of hunger”.

Indeed, in both passages the present tense forms seem to indicate unbounded states and activities, whereas the present tense forms usually denote events. It is therefore tempting, as Melchert hesitatingly does, to assume that in these texts present and preterite forms are used to mark an aspectual difference, namely one between imperfectivity and perfectivity, respectively.

However, as Melchert notes himself, such an interpretation does not explain all the facts. Especially the status of the form *šallanušket*, as found in the *Zalpa*-text, would then be unclear: according to the rules of ‘normal’ Hittite, the *-ške/a*-suffix would indicate imperfectivity, whereas in this context the verbal form has a preterite ending, which seems to indicate perfectivity. As Melchert observes, “[w]hile it is reasonable to view the raising of the daughters as an event (hence the formal preterite), objectively this is an activity which takes considerable time, and which might therefore be marked as imperfective” (1998: 417). He therefore states that “[t]he relationship of imperfective aspect to the use of the present described here thus needs further research, with special focus on the meaning of preterite forms of the marked imperfectives” (ibid.).

2. Aim of this article

In the present article I will take Melchert’s analysis of the tense-aspect system of Old Hittite narratives as a starting point.² I will argue that the remarkable, seemingly aspectual usage of present and preterite forms in these Old Hittite narratives as he describes it, is strongly reminiscent of the tense-aspect system of Proto-Indo-European as has recently been reconstructed by Roland Pooth (2009), and that the two analyses in that sense support each other. Moreover, I will show that Pooth’s new ideas on the nature of the PIE tense-aspect system can solve Melchert’s problem regarding the use of preterite forms of marked imperfectives like *šallanušket*.

3. The prehistory of the Hittite *mi*-conjugation

Our discussion of the aspect system of the Old Hittite narratives must begin with a treatment of the prehistory of the Hittite *mi*-conjugation. It is well known that Hittite knows in its active voice two conjugations, namely the *mi*-conjugation and the *hi*-conjugation. Although the origin of the *hi*-conjugation is fiercely debated,³ there seems to be general consensus on the origin of the *mi*-conjugation, which is worded by Jasanoff (2003: 3) as follows:

“The origin of the *mi*-conjugation is perfectly clear. The present endings *-mi*, *-ši*, *-zi* go back to the PIE primary active endings **-mi*, **-si*, **-ti* – an identity confirmed by a number of striking word equations (e.g. Hitt. 1 sg. *ēšmi* ‘I am’, 2sg. *ēšši*, 3sg. *ēšzi* = Ved. *ásmi*, *ási*, *ásti* = Gk. εἰμί, εἶ, ἐστί [...]). Similarly, the preterite endings *-(n)un*, *-š*, *-t* correspond to the PIE secondary endings **-m* (**-m̄*), **-s*, **-t*. It seems beyond doubt that the present of the *mi*-conjugations rests on a core of inherited active presents, the imperfects of which gave rise to the corresponding *mi*-conjugation preterites (e.g. 3 sg. *ēšta* ‘was’, *kuenta* ‘slew’, etc.). The *mi*-conjugation also includes a few

² From Melchert’s 1998 article it is not clear how extensively he studied these OH texts. It would therefore be interesting to read a full treatment of all verbal forms in the texts involved in order to establish whether Melchert’s analysis is correct or not. Within the context of the present paper, it was not possible to conduct such a research, however.

³ In the present article I will not touch upon the origins of the *hi*-conjugation. Yet, the outcomes of this article are certainly relevant for this topic, and I will therefore treat the prehistory of the *hi*-conjugation on a different occasion.

inherited root aorists in **-m*, **-s*, **-t*. Following the loss of the imperfect : aorist distinction in Proto-Anatolian, these were reinterpreted as simple ‘preterites’ and provided with back-formed presents in **-mi*, **-si*, **-ti*. The clearest instance of such an aorist-based *mi*-verb is *tē-* ‘say’ (pres. 3 sg. *tēzzi* = Lyc. *tadi* ‘puts’), the Hittite reflex of the PIE root aorist **dhéh₁-m*, **-s*, **-t* ‘put’ (> Ved. *ádhām*, etc.).”

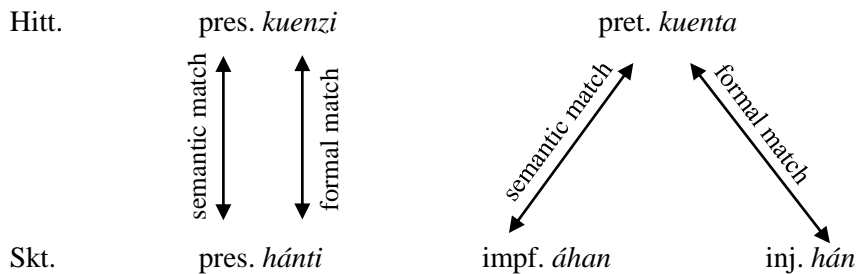
Although this account is the present *communis opinio*, it cannot be correct in all its details: there are several adjustments to be made.

4. Comparing Hittite and Sanskrit

It is indeed true that some *mi*-conjugated presents of Hittite form a perfect match with the athematic presents of other IE languages, like Sanskrit. For instance, the Hitt. present forms *kuemi* ‘I kill’, *kueši* ‘you kill’, *kuenzi* ‘he kills’ perfectly match the Skt. present forms *hánmi*, *hám̐si*, *hánti* ‘id.’, both in form and meaning.⁴ Both series can therefore without a problem be reconstructed for Proto-Indo-European: **g^{wh}én-mi*, **g^{wh}én-si*, **g^{wh}én-ti*.

This is not the case for the *mi*-conjugated preterites, however. The preterite forms belonging to the verb *kuen-* ‘to kill’, namely *kuenun* ‘I killed’, **kuenta* ‘you killed’, *kuenta* ‘he killed’, are semantically identical to the Skt. imperfect forms *áhanam*, *áhan*, *áhan* ‘id.’, but their formal match is not complete: the Sanskrit forms contain the augment *a-*, which is absent in Hittite. Instead, the Hittite preterites are rather a formal match with the Skt. injunctive forms **hánam*, *hán*, *hán*, which, just like Hitt. *kuenun*, **kuenta*, *kuenta*, go back to the preforms **g^{wh}én-m*, **g^{wh}én-s*, **g^{wh}én-t*.⁵ However, despite the formal match between these two sets, semantically they differ from each other: the Hittite preterites denote past tense, whereas the Sanskrit injunctive is a tenseless category (cf. below for a more elaborate discussion).

If we schematize the relationship between the Hittite verbal forms and the Sanskrit ones, we arrive at the following overview:



In principle, there are two theoretical scenarios that would explain the two-fold match and mismatch between the Hittite preterite on the one hand and the Sanskrit imperfect and injunctive on the other.

1. The first scenario entails assuming that the Hittite preterite in fact is etymologically identical to the Skt. imperfect. This requires, however, that we explain the formal difference: why does the Skt. imperfect have an augment (*á-*), whereas the Hittite preterite does not show such a morpheme?

⁴ Note that in Hittite the present forms can also have a future meaning, ‘I will kill’, ‘you will kill’, ‘he will kill’, which in Sanskrit is expressed by a set of different forms. This does not undermine the basic equation between the two sets of present forms.

⁵ Note that the Hittite endings 2sg. *-tta* and 3sg. *-tta* do not directly reflect **-s* and **-t*, but it is generally assumed that in stems ending in a consonant these latter endings (which correspond to postvocalic *-š* and *-t* < **-s* and **-t*) have been replaced by the former ones. This is seen as a relatively recent phenomenon, which has no bearing on the origin of the *mi*-conjugation.

2. The second scenario entails assuming that the Hittite preterite actually is etymologically identical to the Skt. injunctive. This requires, however, that we explain the semantic difference: why is the Hittite preterite a past tense, but the Sanskrit injunctive a tenseless category?

The answer to the questions that arise in the two scenarios ties in closely with the question what the exact historical relationship is between the Sanskrit categories present, imperfect and injunctive.

5. *The prehistory of Sanskrit present, imperfect and injunctive*

The formal relationship between the Sanskrit categories present, imperfect and injunctive is clear. When we transpose these forms into PIE phonemes, pres. **CéC-ti*, impf. **h₁é-CeC-t*, inj. **CéC-t*, it is clear that the injunctive is the most basic category, and that the present is derived from it by adding a suffix **-i*, whereas the imperfect is derived from it by adding a prefix **h₁e-* (also called the ‘augment’).

The semantic relationship between these categories is a bit more complicated since the meaning of the injunctive has not always been clear. For a long time, it was thought that the injunctive is a mood,⁶ and according to Hoffmann (1967) it has ‘memorative’ semantics. As Kiparsky (2005) convincingly has argued, this cannot be correct, and in his view the injunctive should rather be seen as a category that is unspecified for tense and mood.⁷ All temporal and modal meanings that injunctive forms in texts seem to have, are in fact dependent on the sentential and discourse context. This means that, whereas the present is specifically marked as a present tense (formally expressed by **-i*) and the imperfect is specifically marked as a past tense (formally expressed by **h₁e-*), the injunctive is unspecified for tense, and could have any temporal meaning depending on the context. The question now is: did this system also exist as such in Proto-Indo-European?

6. *Status of the augment*

There can be no doubt that the basic endings **-m*, **-s*, **-t*, etc. existed in the PIE mother language. Also the existence of the suffix **-i* at this stage is uncontested. The status of the prefix **h₁e-* (also called the augment) is debated, however. As is well known, (traces of) the augment are only found in Greek, Phrygian, Armenian, and Indo-Iranian. This means that if one wants to posit the augment as an original feature of PIE, one would have to assume that it was independently lost in Anatolian, Italo-Celtic, Germanic, Balto-Slavic, Albanian and Tocharian. Such a loss cannot have been due to phonological developments (certainly in phonologically archaic languages like Lithuanian and Hittite, word-initial, accented syllables would have been retained), but then should have been the result of morphological developments that in all these languages were so total that not a single trace of the augment was left. Although this is not impossible, the distribution of the augment, being found in the IE branches that are often regarded as the central ones, does not, in fact, speak in favour of such a situation. This distribution would instead be more easily explained by assuming that the augment is a central IE innovation that has not spread to the more peripheral branches.

Since we are discussing the prehistory of and the relationship between the different tenses in Sanskrit, the question whether or not the augment can be reconstructed for Proto-Indo-European is only relevant when it is a tense marker. Yet, this probably was not the case at all. As Bakker (2005: 127) has argued, in Homeric Greek, the augment is “a deictic suffix marking an event as “near” with respect to the speaker’s present and immediate situation”. Its grammaticalisation into a tense marker (the situation as attested in Classical Greek) must therefore be a later, specifically Greek development. This implies that the original function of the augment (whether it goes back to PIE or not) cannot have been merely temporal but must have been aspectual of some sort. Its grammaticalization into a tense marker was an independent development of individual branches (possibly only of the central IE ones), and therefore has no bearing on the tense system of Proto-Indo-European.

7. *Reconstructing the PIE tense-aspect system*

This view about the augment has important implications. It amounts to saying that, originally, PIE only possessed the forms **CéC-t* and **CéC-t-i*. Since, as we have seen, the form **CéC-t* yields in

⁶ See references to earlier literature in Kiparsky 2005 and Pooth 2009.

⁷ Thus also, independently, Pooth 2009.

Sanskrit a form that is tenseless, this raises the question what the original tense distinction between **CéC-t-i* and **CéC-t* could have been.

This question was asked and answered by Roland Pooth in a 2009 paper. He convincingly argues that the tenselessness of the form **CéC-t* in Sanskrit cannot have been the result of an innovation and therefore must be original. This has an important consequence, namely that the semantic distinction between the Proto-Indo-European forms **CéC-t* and **CéC-t-i* cannot have been one in tense: “das Affix *-i [kann] kein bloßes Affix des “*hic et nunc*” = GEGENWART gewesen sein”, which means that “das Frühuridg. eine NON-TENSED Sprache war”, just as e.g. Mandarin Chinese (Pooth 2009: 386, 389).

Pooth therefore argues that the distinction between PIE **CéC-t* and **CéC-t-i* must have been one in aspect instead. On the basis of typological literature on tense-aspect systems and their diachronic developments, Pooth proposes that the suffix *-i may have denoted progressive aspect, i.e. that it marks an event as “ongoing at reference time” (thus Bybee & Dahl 1989: 55; Pooth 2009: 397). In other words, the suffix *-i did not mean ‘here and now’, i.e. ‘at the moment of speaking’, but rather ‘there and then’, i.e. ‘at the moment we are talking about’ (which can be the present moment, but certainly need not be). According to Pooth, the progressive aspect can be paraphrased by the dialectal German “*ist am + infinitive*” construction, e.g. *die ist am duschen* ‘she is taking a shower (at this moment)’ (although the German construction is specific for tense, whereas the PIE progressive was not).

A major additional advantage of Pooth’s assumption is that it can also satisfactorily explain the difference between presents and aorists in the later IE languages. As he explains, we may assume that in PIE progressive aspect was incompatible with punctual semantics, and that therefore the suffix *-i could not be attached to verb forms with punctual meanings (just like in dialectal German one cannot say †*die ist am finden* ‘†she is finding (at this moment)’). For the parent language this means that besides the non-punctual verbal form **h₁éi-t* ‘he went, goes, will go’ a progressive form **h₁éi-t-i* ‘he was/is/will be going (at the moment of reference)’ existed, but that the punctual verbal form **d^héh₁-t* ‘he put / puts / will put’ did not have a progressive counterpart, so that a form ***d^héh₁-t-i* never existed. Only derivatives of punctual roots that have, for instance, a repetitive meaning could make progressives, however, like e.g. **d^hi-d^héh₁-t-i* ‘he was/is/will be putting repeatedly’.⁸

In other words, we may envisage the development of (a part of) the PIE verbal system as follows. Originally, there were only the endings *-m, *-s, *-t, which added information about person and number to a verbal stem. Verbal roots had an inherent *Aktionsart*: they were either punctual or non-punctual, depending on their semantics. Of punctual verbal roots, derivatives could be made (either by reduplication, the *n*-infix, etc.) with repetitive, durative etc. meaning, whereas of non-punctual roots a punctual derivative could be made (by the suffix *-s-). At a certain point in time, the suffix *-i, having a value that can be paraphrased with ‘there and then’, came into being to form progressives. Yet, this progressive quality was only compatible with non-punctual semantics of the verbal stem. This caused the following aspectual system:

| | progressive | non-progressive |
|--------------------|--|--|
| non-punctual stems | * <i>CéC-t-i</i> * <i>Ci-CéC-t-i</i> * <i>C-né-C-t-i</i> | * <i>CéC-t</i> * <i>Ci-CéC-t</i> * <i>C-né-C-t</i> |
| punctual stems | -- | * <i>CéC-t</i> * <i>CéC-s-t</i> |

It should be noted that at this stage all verbal forms were unspecified for tense.

⁸ Cf. the fact that in English, when referring to putting a single period on paper, one can only say ‘I will put a period on paper’ (= non-progressive, ~ PIE **d^héh₁-t*) and not **‘I will be putting a period on paper’ (= progressive, ~ PIE ***d^héh₁-t-i*). However, when referring to putting several periods on paper, it is possible to not only say ‘I will put several periods on paper’ (= non-progressive, ~ PIE **di-d^héh₁-t*), but also ‘I will be putting several periods on paper’ (= progressive, ~ PIE **d^hi-d^héh₁-t-i*).

8. From aspect to tense

To my mind, Pooth's account is fully convincing, and I agree with him when he states that, coming from this tenseless system, "Temporalität sich schrittweise [...] grammatikalisiert [hat]" (Pooth 2009: 389). This grammaticalisation of tense was executed in different ways in the different branches, however.

In the case of Sanskrit, for instance, a tense distinction came into being because a new category with the prefix **h₁e-* (the augment) was created, **h₁é-CeC-t*, which formed a specifically preterite tense. This caused the reinterpretation of the progressives in **-i* as present tense forms, whereas the old non-progressives without **-i* yielded the tenseless category that is called injunctive. The old aspectual system was not fully lost, however: although preterites with the prefix **h₁e-* could be derived from both punctual and non-punctual verbal forms, no new presents in **-i* of punctual verbal forms were made: their present counterpart was suppletively provided by the corresponding non-punctual present (sometimes a derivative of the same verbal root, like in the case of pres. *dadhāti* 'he puts / is putting' < **d^hi-d^heh₁-ti* besides punctual preterite (aorist) *ádhāt* 'he put' < **h₁é-d^heh₁-t*).

In Hittite, however, the original aspectual distinction between progressive and non-progressive was eventually reinterpreted as a tense distinction, with the progressive verbal forms becoming present / future tense forms, and the non-progressive forms turning into preterite tense forms. This reinterpretation did not only affect the verbal forms that existed, but also gave rise to the creation of new forms. As we have seen, because of the semantic incompatibility between progressive aspect and punctual semantics, in the parent language no progressive variants existed of verbal stems that denoted a punctual action. Yet, with the reinterpretation of the suffix **-i* as a tense marker instead of an aspect marker, it became possible to create new forms in **-i* that did not exist before, like **d^héh₁-t-i*, which now functions as the present/future 'he puts / will put' (ultimately yielding Hitt. *tēzzi* 'he says / will say') next to the preterite **d^héh₁-t* 'he put' (ultimately yielding Hitt. *tēt* 'he said').

The exact path of grammaticalisation of tense in the branches that did not partake in the creation of the augment is a topic that I will not treat in this paper,⁹ but which could have interesting consequences for the branching of the IE language family.

9. The aspect system of Old Hittite narrative texts

With this background knowledge, it is time to go back to Melchert's observation that some Old Hittite narrative texts show a peculiar aspectual system, namely one in which in stories that take place in the past "the formal present tense is used to indicate unbounded or open-ended states and activities", i.e. seemingly denotes imperfective aspect, whereas "the formal preterite [...] expresses events", i.e. seemingly denotes perfective aspect (1998: 416). However, as Melchert notes, since in such passages also verbal stems that are specifically marked as imperfective (because they contain one of the imperfective suffixes *-ške/a-^{zi}*, *-šš(a)-ⁱ*, or *-anna/i-ⁱ*) can occur as a preterite, the correlation between, on the one hand, presents and imperfectivity, and, on the other, preterites and perfectivity does not seem to be consistent.

To my mind, these puzzling facts fall in place if we assume that these Old Hittite narrative texts exhibit the same aspectual system as the Proto-Indo-European parent language. As we have seen above, PIE appears to have had a verbal system in which tense was unexpressed, but where a formal distinction was made between progressives (which were marked by the suffix **-i*) and non-progressives (which were unmarked). We have moreover seen that, because of semantic restrictions, only non-punctual verbal stems could form marked progressives by addition of the suffix **-i*, whereas punctual verbal stems were non-progressive by definition.

⁹ I do want to remark that Pooth's reconstruction can also explain intriguing facts from other IE languages. For instance, in the Tocharian languages, the present endings go back to both PIE primary and secondary endings, whereas the preterite endings reflect the PIE perfect endings (e.g. Peyrot 2013: 410-9). Within Pooth's scenario, we can now view this as the result of a situation in which originally primary, secondary and perfect endings were aspectually opposed (progressive, non-progressive, and (resultative-)stative, respectively), after which the perfect was reinterpreted as a past tense, pushing both the progressive and non-progressive into the present tense, losing their original aspectual difference.

Applying this system to the Old Hittite narrative texts, we can assume that the ‘present’ forms mark progressive aspect (i.e. “ongoing at reference time”), whereas the ‘preterite’ forms mark non-progressive aspect (i.e. “not-ongoing” or “ongoing not at reference time”). It is important to realize that in this aspectual system punctuality is not specifically marked. Although punctual verbs are by definition non-progressive, non-punctual verbs can be both progressive and non-progressive.

Let us now turn to Melchert’s description of the aspectual system of the Old Hittite narratives. When he states that “the formal present tense is used to indicate unbounded or open-ended states and activities” (1998: 416), we can now rephrase this as follows: “the formal present tense marks progressive aspect, and since this aspect is by definition only found with non-punctual verbs, all ‘present’ forms in these texts refer to unbounded or open-ended states and activities”. Melchert’s second statement, namely that “the formal preterite [...] expresses events” (ibid.) cannot be upheld in this form. Instead, one should rather reverse the statement, and say that “events are expressed by the formal preterite”, which can now be rephrased as follows: “since events are punctual, and punctual verbs are by definition in the non-progressive aspect, all events are in these texts expressed by ‘preterite’ forms”. Melchert’s third statement, namely that the form *šallanušket* (found in the excerpt from the Zalpa-text as given above) does not fit the overall system of these texts, is understandable from a point of view that interprets ‘present’ forms as specifically non-punctual, and ‘preterite’ forms as specifically punctual. Yet, within a progressive interpretation of the Old Hittite aspectual system this is incorrect: we should rather view ‘present’ forms as marking the progressive aspect (which is by definition found only with non-punctual verb stems, which explains the correlation between ‘presents’ and non-punctual aspect), whereas ‘preterite’ forms mark the non-progressive aspect, which is indeed often found with punctual verb stems (since punctual verbs are by definition non-progressive), but which can also be found with non-punctual verb stems (like *šallanuške/a-^{zi}*).

In other words, within a progressive interpretation of the Old Hittite aspectual system, we can distinguish three types of verb forms: (1) progressives (“ongoing at reference time”), which are by definition non-punctual (because “ongoing”); (2) non-progressives formed of non-punctual verb stems (which are “ongoing not at reference time”); and (3) non-progressives formed of punctual verb stems (which are “not-ongoing”).

We may return to the passage from the Zalpa-text (KBo 22.2 obv. 6-8 (OH/OS)), as was given above as well, in which the ‘preterite’ = non-progressive forms are underlined, and the ‘present’ = progressive forms are given in bold:

- (6) ... nu M[UNUS.LUGA]L *namma* 30 MUNUS.DUMU *hāšta*
 (7) *š=uš apašila šallanušket* DUMU.NITA^{MEŠ} *ā[pp]a[?]*^{URU} *Neša janzi*
 (8) nu ANŠE-in *nannianzi mān*^{URU} *Tama[rmara]* *arer* nu *taršikanzi*

“(6) The queen in turn gave birth to thirty daughters, (7) and she raised them herself. (Meanwhile) the sons **were going back** to Neša (8) and **driving** a donkey. When they arrived in Tamarmara, they **said**: (direct speech follows)”.

If we use the same scheme as was used for expressing the PIE aspectual system above (the left scheme), we get the following classification of the verbal forms that are used in this passage (the right scheme):

| The PIE system | | | The Old Hittite system | | |
|--------------------|--|--|------------------------|--|-----------------------------|
| | progressive | non-progressive | | progressive | non-progressive |
| non-punctual stems | * <i>CéC-t-i</i> * <i>Ci-CéC-t-i</i> * <i>C-né-C-t-i</i> | * <i>CéC-t</i> * <i>Ci-CéC-t</i> * <i>C-né-C-t</i> | non-punctual stems | <i>ianzi, nannianzi, taršikanzi</i> (type 1) | <i>šallanušket</i> (type 2) |
| punctual stems | -- | * <i>CéC-t</i> * <i>CéC-s-t</i> | punctual stems | -- | <i>hāšta, arer</i> (type 3) |

We can conclude that a progressive vs. non-progressive aspectual system can explain the correlation between the form and semantics of all verb forms of this passage, and is therefore to be preferred over a perfective vs. imperfective aspectual system (as was hesitatingly suggested by Melchert), which was unable to explain the category of verb forms represented by *šallanušket*.

10. Consequences

If this new interpretation of the aspectual system of several Old Hittite narratives is correct, it shows that the progressive vs. non-progressive aspect system as was reconstructed for Proto-Indo-European by Pooth (2009) remained more or less fully intact up until the time that these narratives were composed. It follows that it must have been present in Proto-Anatolian as well.

To what extent this implies that the grammaticalization of tense as a separate category must have been a specifically Hittite, and therefore post-Proto-Anatolian, development, I find difficult to say. This depends on whether it is possible that an archaic aspect system (in this case the progressive vs. non-progressive system) could be retained as a device for composing specific genres (in this case narratives) side-by-side a renewed tense system (in this case the present vs. preterite system) that was used in everyday life. If this is viewed as unlikely or even impossible, it would follow that the category ‘tense’ must have been an independent development in the different branches of the Anatolian language family, which means that, for instance, the Hittite form *tēzzi* (which is generally seen as a renewed present form with **-i* on the basis of the inherited form *tēt* < PIE **d^héh₁-t*) cannot be directly equated with Lyc. *tadi* (also from a virtual **d^héh₁-t-i*), but that both must have been formed independently. At present, I do not dare to make such a bold statement, but I certainly think that this question deserves a thorough treatment.

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