

A NEW PROPOSAL FOR THE READING OF THE HITTITE NUMERAL ‘1’: ŠIA-

Petra Goedegebuure*

Goal, other proposals for ‘one’ and delimitation of options

The reading behind the Hittite numeral ‘1’ has been a longstanding problem, not in the least because it was (and is) believed that this numeral is only written logographically with the sign ‘1’¹, with Hittite complements indicating an *-a*-stem, an *-i*-stem or a *-nt*-stem (Eichner 1992). The proposals for the reading behind ‘1’ therefore necessarily centered on the analysis of (supposed) derivatives of ‘1’, and always with the two Proto-Indo-European roots for the cardinal ‘1’ in mind: **sem-* or **oi-*. To start with the latter, the following words have been used to reconstruct the numeral ‘1’ as beginning with *ā-*:

(1) *ānki* “once”. HED A: 73 and Eichner 1992: 42-43 note that *a-an-ki* in KUB 4.1 iv 36 and 38 (and not KUB 4.2 as Eichner l.c. and HED l.c. erroneously cite) alternates with *1-ŠU* and *1-an-ki* in iv 35 and 37 respectively. HED l.c. derives *ānki* ultimately from **oyo-* “one” (also see Carruba 1998: 508 with n. 2 and Carruba 1999: 149 with n. 3: **oi-o* + *nki*), whereas Eichner l.c. takes **ān* as the nom.-acc.sg.neuter of either a stem **ānt-* (see immediately below) or **ā-* “one”. Most importantly, Eichner considers *ā-* the reading behind the *-a-* stem (o.c. 34).

(2) ^(LÚ)*ānt-* “equal, rival”. See Goedegebuure 2002 for the isolation of this lexeme. Eichner 1992: 36f. suggests that *a-a-an-za*, attested in the vocabulary KBo 13.10: 6 and 7 in the expression *ānza* INIM-*aš*, might be an *-nt-* extension of the stem **ā-* (also see Carruba 1998: 508 with n. 2 and Carruba 1999: 149, with n. 3 **oi-o* + *nt-*). Instead, I would like to include this nom.sg.comm. in the paradigm of ^(LÚ)*ānt-*. The translation of Eichner’s example KBo 13.10: 7 *ānza* INIM-*aš* *kuedani ēšta* should in that case be something like “He who had an equal (= similar) problem”. (For another attestation of

* It is with great pleasure and gratitude that I offer this contribution on the numeral one to one of my first, and highly inspiring teachers, Professor Johan de Roos.

I would also like to thank Harry Hoffner, Theo van den Hout, Craig Melchert and Elisabeth Rieken for their valuable comments on earlier versions of this paper. The responsibility for the opinions expressed in the following lies solely with me.

The following abbreviations have been used: CHD = Güterbock, H.G., H.A. Hoffner and Th.P.J. van den Hout, 1980ff.; HE = Friedrich, J., 1974; HED = Puhvel, J., 1984ff.; HW² = Friedrich, J., and A. Kammenhuber, 1975ff.

¹ With one possible exception: Eichner 1992: 136 suggests that the reading of ‘1’ is *ānt-* < **oyont-*, but see below sub (2) for the correct interpretation of this lexeme.

a-a-an-za in a vocabulary, see KBo 1.30 i 2 *a-a-an-za kui[š UL]* “he wh[o is not] equalled/rivalled” (Goedegebuure o.c. 67).)²

(3) *āšma* “see, lo!”. The translation “first”, proposed by Goetze 1949: 297, has to be rejected (Puhvel 1978: 105, Hoffner 2004). As Hoffner shows, *āšma* is derived from the 3rd person/distal demonstrative *aši* with the adversative particle *-a/-ma*, **aši-ma*, just as *kāša* has to be analyzed as *kāš-a*.³

Of these three, only *ānki* remains as a candidate which might provide a clue to the stem of ‘1’.

With **sem-* in mind the following words have been used to reconstruct the numeral ‘1’:

(4) *šannapi(li)* “empty”. Goetze translated *šannapili* as “single”, which led him to *šanna-* “one” (Goetze 1935, Hahn 1942: 90f.). This was rejected by Goetze himself, 1949: 296 (“**šanaš* is not the reading of the numeral 1-*aš*”), Friedrich 1950: 254 (proposing “leer”), Eichner 1992: 46, Puhvel 2002: 675, and finally CHD S: 159.

(5) *šanezzi* “pleasant, first quality”, leading to **šan-* “erster” (Oettinger 1995: 183). CHD S: 178, connecting it with *šannapi* and *šannapili* instead, suggests to derive it from PIE **senh₂-* “on its own, separated” (following Eichner 1992: 46). Also see Puhvel 2002: 675.

(6) *šani-* “the same, one and the same”⁴ (only the dative-locative is attested, CHD S: 173). Kronasser 1956: 152 equated *ša-a-ni-ta* in KBo 2.3 iii 18 with 1-*e-et-ta*, 1-*e-da*, and suggested 1-*aš* = **sanas*, which according to him was an *-n-* derivation of PIE **sem-* “one”. His argumentation has become invalid because *ša-a-ni-ta* is probably a mistake for *ta-a-ni-ta* (CHD S: 175). Neu 1974: 98 n. 210 derived *šani-* from a neuter **san* “one”. Eichner 1992: 46 suggests still another possible route: **šani-* could come from **šami-* “the same”, with analogical reshaping on the basis of a neuter **šan* or **šen* < PIE **sem*. Puhvel 2002: 674-675 derives *šani-*, *šanezzi* and *šannapili* from PIE **sen(i)-* “denoting apartness, oneness as separation”.

(7) *kiššan* “thus, in this way”. Eichner 1992: 46 interprets this adverb as a univerbalisation of **kī šan* < **kī šen* “in this one way”, with **šen* from the nom.-acc.sg.neuter **sem*.

(8) *šayitišt-* “weanling, weaned animal”. This form is considered as a compositum **ša(m) + *ueteš-t-*. The first element **ša(m)-* either comes from **sēmi-* “half” (Hrozný, 1917: 93 with n. 2) or from PIE **sem-* “one”. The latter option is preferred by Kronasser 1962: 159 and Rieken 1999: 147. The original meaning of the composite noun would thus be “aus dem gleichen Jahr stammend” (Rieken l.c.).

² The acc.pl.comm. *a-an-tu-uš(-tu-uš)* “(your) *a*.” in KBo 25.123 rev. 10’ (Neu 1980a: 206) does not belong to *ānt-* “equal” as I tentatively suggested in Goedegebuure 2002: 67 n. 24, but to *āntu-* “Besitz, Habe, goods”.

³ Eichner 1992: 43-44 does not derive *āšma* “first” from a stem **ā-*, but prefers with Neu 1974: 98 n. 210 the preform **ō-smō*, lit. “at the one”, i.e. from the PIE **sem-* “one”. Carruba 1999: 149 with n. 3 on the other hand analyzes *āšma* as **oi-o-* + *smo-*, with pronominal *smo-*.

⁴ Eichner’s additional meaning “a single one” (1992: 45) does not seem to fit the examples listed in the CHD S: 173f.

Thus, besides (1) *ānki* also (6) *šani-* (if it is not derived from **šami-* “the same”), (7) *kiššan* and (8) *šauitišt-* stand a chance of providing the stem for ‘1’.

Supportive evidence for a stem beginning with *š-* and not with *ā-* comes from Hieroglyphic Luwian. The value *sa* (or *s*) for the single vertical stroke (= *sa*₈) was proposed by Bossert 1957: 358, which was also noted by Meriggi 1975: 9 and Kalaç 1978: 121 n. 5 (referred to by Hawkins 2000: 446, 528)⁵. It seems highly probable that the value *sa* is acrophonically derived from the Hieroglyphic Luwian numeral ‘1’.⁶ Quoting Bossert l.c.: “Da der “senkrechte Strich” nichts weiter ist als das Zahlzeichen “eins”, muß das H-H Wort für “eins” mit *sa/se/si* begonnen haben”.

Meriggi’s suggestion (1967: 228 n. 14) that the Carian demonstrative *†sie-* is the cognate of Hittite *šia-* must be rejected in view of the new readings proposed by Adiego Lajara 1993 (*†s-i-e-* becomes *s-ñ-i-* in inscription D14: 1, o.c. 332).

As a result of the combination of the Hieroglyphic Luwian evidence and the proposals listed above, the Hittite word for the numeral ‘1’ could begin with *š-*, not with *ā-*. In the remainder of this article I hope to prove that the pronoun *šia-* (with the forms *ši-i-e-el*, *ši-e-da/ta-ni*, *ši-(i)-e-ez*, *še-e-za*, *ši-e-et*, and possibly *še-e-et*), hitherto perceived of as a demonstrative either functioning as a true demonstrative “this”⁷ or “that”⁸ or as an accented pronoun⁹, is actually the Hittite word behind ‘1’. This analysis receives further support from Hoffner’s findings, this volume.

Formal characteristics of *šia-* and delimitation of options

In this section I will characterize *šia-* as a pronoun, which was of course already noted a long time ago, and present an overview of the categories of words that have a pronominal or partly pronominal inflection in order to show the possible options for *šia-*.

⁵ See for example the nom.sg.comm. in KULULU 4 § 1, 2 SOL-*wa/i+ra/i-mi-sa*₈ (Hawkins 2000: 446); TOPADA § 26 (ANIMAL)EQUUS-*sa*₈ (Hawkins o.c. 458); PORSUK § 1 *pa+ra/i-HWI+ra/i-sa*₈ (Hawkins o.c., 528).

⁶ Compare the acrophonic readings *mi-* for the four vertical strokes (L 391), Hittite *meu-*, *miu-* “four” (CHD L-N: 308f.), Cuneiform Luwian *māwa-* “id.” (Melchert 1993: 145) and *nu* for the nine vertical strokes (L 395) (Eichner 1992: 87, Hawkins 2000: 116).

⁷ Hrozný 1917: 137 “warscheinlich “diesem””. Idem Goetze 1928: 29, Pedersen 1938: 66, Neu 1983: 167, Salvini & Wegner 1986: 94. Pedersen l.c. proposed either two Hittite stems **so* and **s(i)jo-* or only one stem **s(i)jo-*, Neu l.c. proposed the stem *šia-*.

⁸ Neu 1996: 79 “in jenem einen Distrikt”; Neu 1997: 145-149 classified *šija-* /*šja-*/ as a demonstrative pronoun with deixis comparable to *apā-* “jener”. According to Neu *šija-* should probably be connected with Vedic *sya-* “jener” (o.c. 148). I assume that the switch from “dieser” (Neu 1983: 167) to “jener” is the result of the discovery of the Hurrian-Hittite bilingual.

⁹ Sommer & Falkenstein 1938: 78 “orthotonierten [...] Demonstrativs”; Kronasser 1956: 143: demonstrative, orthotonic form of 3rd person pronoun (from the pronominal stem **so-*), instead of the usual *apā-*; HE § 105: 64 “Betontes Pronomen der 3. Person”; Kammenhuber 1969: 209: 3rd person pronoun, “orthotoniertes, defektives *še-* (oder *ša-*, ...) “er, sie””; Melchert 1977: 26 “independent pronoun *ša-* (or *ši-*?)”; Meriggi 1980: 319 “pron. pers. “accentato” della 3 pers.”; Oettinger 1999: 264 n. 10: anaphoric pronoun.

The genitive sg. ending *-el* in *ši-i-e-el*, the dative sg. ending *-edani* in *ši-e-da/ta-ni* and the abl. ending *-ez* in *ši-i-e-ez* all clearly establish *šia-* as a pronoun (HE § 110). The following categories have a (partly) pronominal inflection, which means that *šia-* could be

1. an accented third person pronoun, like *apā-* (HE § 98, 105);
2. a demonstrative pronoun, like *kā-*, *apā-*, *aši* (HE § 110-118, for *aši* as a 3rd person/distal demonstrative, see Goedegebuure 2003, chapter 4 & Goedegebuure 2004);
3. a question word or relative pronoun, like *kuiš* “who” (HE § 119-123);
4. an indefinite pronoun or a quantifier, like *kuiški* “someone, something, some”, *tamāi-* “other”, *dapija-* “all” (HE § 124-128);
5. a numeral (HE § 129-134).

The categories 3 and 4 have to be excluded since we already have the lexemes filling these categories. Categories 1 and 2 have already been proposed by different scholars (see the end of section 1, with notes 7, 8 and 9). Theoretically, especially category 2 can include more demonstratives than are currently known for Hittite. Category 1 is more difficult in this respect, for the occurrence of two accented third person pronouns is not easy to explain. It might be possible if these pronouns had slowly been replacing each other in the course of time, but since there is no proof of such a replacement one should account for two competing accented pronouns from Old Hittite to latest Hittite. Finally, no one has ever considered category 5, the numerals.

Method

If the pronoun *šia-* should behave like *apā-*, which functions both as a demonstrative pronoun “that, near you”, and as an accented pronoun “that one, that NP”, one should be able to classify *šia-* as a demonstrative or as an accented pronoun using some functional criteria. In this section I will list the criteria which will be used to determine the classification of *šia-*.

If the referent of the alleged demonstrative *šia-* is not mentioned before¹⁰, there are two possibilities (the following classification is based on Diessel 1999):

1. The demonstrative is used *deictically*, referring to either a location or an entity in the speech situation. The deictic demonstratives belong to one of two formal classes:

¹⁰ To complicate matters from a theoretical linguistic viewpoint, entities that have been mentioned before can still be referred to deictically. Within the limits of this article I will use the following rule of thumb, restricting myself to third person reference: Entities that are both present in the speech situation and mentioned before are generally referred to by means of the same linguistic expressions as entities that are not present but are only mentioned in the text. In other words, the distinctive feature between deixis and anaphora for the moment is ‘earlier mention in the text or not’, not ‘present in the speech situation or not’.

- a. The demonstrative *pronouns*: for example the ablatives *kez* (Old Hittite *ket*) “on this side of ...; from here”, *apez* “from there”, *edez* (Old Hittite *edi*) “on that side of ...; from there”. These ablatives occur mainly in narrative discourse. In Direct Speech one also finds the other cases referring to entities that exist in the speech situation, but since *šia-* is not attested in Direct Speech, one only expects the ablative “from here, there, on this side, that side” or the instrumental “with this, with that”¹¹ to refer to a location or entity. The abl. *šiez* is attested in ex. (3), (4a) and (8), the instrumental (or endingless ‘locative’ (?)) in ex. (2a), (9a) and maybe (9d).
 - b. Demonstrative *adnominals*: the demonstrative is accompanied by a noun, referring either to a location, as *apedani* KUR-*ja* “in that country” or to an entity, as *aši antu_uah_hšaš* “that man”. The expression *šiedani telipuri_{ja}* “in š. district” in ex. (1) might belong to this category.
2. The demonstrative is used *recognitionally*. The referent of the demonstrative is this time not present in the speech situation, but still known to both Speaker and Addressee. This type of demonstrative use is also called ‘Discourse New, Hearer Old’. In Hittite one usually finds an adjective demonstrative + noun in a relative clause (see for example *apūn_u kuin ŠA^{LÜ} MUDI_uKA INIM-an* “that situation of your husband which ...” (KUB 15.1 iii 9'-10'). This type of use is not attested for *šia-*.

When the referent of the demonstrative is referred to before, there are again two possibilities:

3. The demonstrative is used *discourse deictically*. The demonstrative refers not to an object but to a stretch of discourse. So although discourse deixis is not truly anaphoric, it still concerns elements that are textually mentioned. And again there are two options:
 - a. Discourse deictic *pronouns*. In Hittite oracles we find for example the phrase *ki kuit ...*, *eni kuit ...* “as for this/that fact that ...”, referring to the outcome of the preceding oracle inquiry. Another type of discourse deictic reference is ‘something occurs *apez* “because of that”’. The distinction between *demonstrative* pronouns in discourse deictic use and *accented* pronouns referring to a stretch of discourse is rather vague.
 - b. Discourse deictic *adnominals*. These demonstratives appear in the expression *kā-/apā-/aši uttar/memiya(n)/INIM* “this, that, that word, matter, affair”. The expression *šietani uddanī* in ex. (5) might be discourse deictic.

¹¹ The other functions of the instrumental will be discussed when appropriate.

4. The demonstrative is used *anaphorically*, referring to an entity mentioned before. In Hittite anaphoric demonstratives are almost always adnominal¹². Another feature is that they occur on discourse boundaries, such as in the first sentence of a paragraph, or in the first sentence of a digression from the main storyline. There are no examples of anaphoric adjectival *šia-* occurring on discourse boundaries.

As *accented pronoun šia-* should obey the next criteria (*šia-* may be either pronominal or adjectival):

1. The referent has to be mentioned before.
2. If *šia-* functions like accented *apā-*, it should occur in the same contexts as *apā-*. In Goedegebuure 2003 I presented an overview of *apā-* as Focus and Topic pronoun. I distinguished two types of Focus and one of Topic:
 - a. *Expanding* Focus: “that *too*, also/even *that*”. This type of Focus is indicated by means of the particle *-ia* “and, also, even” (Goedegebuure 2003, chapter 7). Preferably the rest of the clause should be somehow presupposed, that is, retrievable or inferable from the preceding text. Ex. (2a) with *šiēt̃a* should be studied from this point of view.
 - b. *Limiting* Focus: “only *that*, (not X, but) Y”. The notion “only” is captured by means of the particle *-pat*. If the pronoun is used to indicate replacement ‘not X but Y’, then it should occur in preverbal position (Goedegebuure 2003, chapter 8). There are no examples of *šia-* with *-pat*. Several attestations occur preverbally: ex. (3), (4a), (9a), (9d). As with 2.a. above, the remainder of the clause should somehow be presupposed.
 - c. *Unexpected* Topic: the pronoun should occur in initial position, followed by *-a/-ma* (Goedegebuure 2003, chapter 9). There are no examples of initial *šia-* followed by *-a/-ma*.
3. The description of *apā-* in Goedegebuure 2003 was not exhaustive although the three categories just mentioned covered most attestations of *apā-*. In order to capture also some other possible uses of accented pronouns, one should consider each case of *šia-* from the viewpoint of the superordinate principle that underlies the categories Unexpected Topic and Focus: contra-expectation. There should at least be some perceived contrast or surprise present in the clauses containing *šia-*. This is admittedly rather vague, but by using criteria that are possibly too strict one might overlook cases where *šia-* could still function as an accented pronoun.

In sum, for *šia-* as demonstrative we have to investigate whether it is used *deictically* or *discourse deictically*. If it is an accented pronoun, it should be used *anaphorically* and additionally, there should be some perceivable contrast or surprise.

¹² In case of *apā-*, one should carefully distinguish between *apā-* as accented pronoun referring to a 3rd person and *apā-* used as demonstrative referring to an entity belonging to the spatial or cognitive domain of the Addressee (2nd person). The anaphoric 3rd person pronoun *apā-* generally occurs independently, whereas the anaphoric 2nd person demonstrative *apā-* to my knowledge only occurs adnominally (with the exception of the adverbials *apija* and *apez*).

However, if there are examples where none of these criteria apply, *šia-* should be another type of pronoun. If this situation occurs, the next step is to show by means of contextual analysis that *šia-* could belong to the remaining category of the numerals. In an ideal situation one would like to have duplicates or comparable contexts, and indeed, the exx. (1) and (2a) come close to this ideal situation.

After showing that the meaning “one” fits the examples in the cases where *šia-* is neither a demonstrative nor an accented pronoun, I will proceed to discuss the examples where the situation is not that clear. Still, if *šia-* indeed means “one”, then the latter group of examples should not be able to exclude the meaning “one”.

Conclusive examples

As described in the first two sections of this paper, *šia-* is until the present either categorized as an accented 3rd person pronoun or as a demonstrative, presumably with *Ich-Deixis* although Neu 1996: 79 switched to *Jener-Deixis*. The three following examples however, provide counter-evidence for *both* categorizations. The dismissal of both views will be elaborately justified in the discussions following the examples. This extensive discussion is not only necessary in view of the invalidation of the long accepted interpretation of *šia-*, the discussions following exx. (1), (2a) and (3) will also be referred to in the discussion of the other examples to avoid repetitions.

From the dismissal of *šia-* as a demonstrative and accented pronoun it necessarily follows that *šia-* has to be a numeral, that is, if one does not want to add a sixth pronominal type with unknown function to the list of pronouns presented under “Formal characteristics...” above. Luckily we do not have to rely on only logical argumentation. The likelihood of the interpretation of *šia-* as a numeral in exx. (1) and (2a) is supported by other comparable texts. For ex. (1) we can turn to the Hurrian text of the bilingual, whereas ex. (2a) can be compared with an almost equivalent expression that contains not *šia-* but the numeral 1 itself.

- (1) § ³¹ ŪL ≈ ma alijaš nu antuṣaḥḥaš ³² apāš LÚ-aš BEL ≈ ŠU kuin auriaš išḥān jezi ³³
 n ≈ an *ši-e-da-ni telipūrija* auriaš išḥān ³⁴ jer tān ≈ ma ≈ ššan telipūrija šākuṣa ³⁵
 zikkizzi nu ≈ za apēdani LÚ-ni DINGIR.MEŠ šēr ³⁶ ḥattātar šišḥir n ≈ aš ≈ kan apēdani
 telipūrija ³⁷ āraš ŪL << tān ≈ ma telipūri ³⁸ ūemit ŪL

§ “It is not a deer, but a man. He is the man whom his lord makes governor-of-a-border-province. They made him governor-of-a-border-province in *ši-e-da-ni* district, but he sets (his) eyes on a second (*tān*) district. The gods impressed wisdom upon that man. He did *not* reach that district, while he did *not* find the second district.”¹³

(KBo 32.14 ii 31-38 (MH/MS wisdom text, CTH 789), ed. Neu 1996: 79, Hoffner 1998: 70)

The phrase *šiedani telipūrija* “š. district” is the first time in this text that ‘district’ is mentioned. This immediately excludes *šiedani* as an anaphoric accented pronoun, leaving

¹³ Hoffner 1998: 70 translates differently: “The gods chose a wise course of action regarding that man so that he did not care for that (first) district, but he did not achieve the second district”.

only two possibilities. The noun phrase should either refer to a location in the (immediate) extra-linguistic situation (the deictic use of demonstratives), or it should evoke a location that is known to both Speaker and Addressee (the recognitional use of demonstratives). More importantly, the knowledge shared between Speaker and Addressee has to be private, for only in that situation do we find Recognitional demonstratives. But since the text belongs to the genre of wisdom literature, the latter option is highly unlikely. We only have an unspecified Narrator and an unspecified Audience, whereas for example letters have identified Speakers and Addressees. Letters necessarily contain shared, private information. Wisdom texts and historical texts on the other hand are intended for a general public and can therefore only contain general references to the outside world, but never private knowledge.

Does *šiedani telipūrija* point then to a location near Narrator, Audience or Other? That location however should be clear from the context. One can safely exclude reference to the locations of the unspecified Narrator or Audience. Only a location near a third party, different from Narrator or Audience might be considered. However, again this should be clear from the context. Contextually the only possible third parties are the governor or his lord. But these are text-internal and do not exist in the extra-linguistic situation, they are not present when the text is read (aloud). Thus, not only is *šiedani* not an anaphoric accented pronoun or adjective, it is not a demonstrative either.

Neu 1996: 79 must have sensed that a true demonstrative interpretation was not really possible, for he translated our phrase as “in jenem einen Distrikt”, i.e., with an added indefinite ‘einen’. Demonstratives however are inherently definite (Lyons 1999: 107ff.), and this in itself is incompatible with a ‘demonstrative’ with the meaning ‘jener einer’. The only other possibility is that Neu already considered the numeral “one”, but this cannot be concluded from his writings.

That the meaning of *šiedani* is not simply indefinite, but indeed “one” can be proven by its Hurrian counterpart: *šiedani telipurija* is the translation of [*āk*]*kanni halzēni* “in one district”, *tān≈ma≈... telipūrija* is the translation of *šinzi halzi*, both “on a second district”. Hurrian *ākki-* means “one (of two)”, and in combination with **agi-*, “der eine ... der andere” (Wegner 2000: 72). Thus, *šiedani* means either “one”, or “one of a couple”.

In sum, given the fact that *šiedani* is not an anaphoric pronoun or a demonstrative, in combination with the Hurrian original which has “one (of a couple)”, the translation of the involved clauses is: “They made him governor-of-a-border-province in **one** district, but he sets (his) eyes on a **second** district.”

For the interpretation of *ši-e-et-ta* in Mursili’s Annals we can rely on a comparable passage from the same text.

- (2a) *nu≈kan aši^m Pihhuniyaš³⁵ [ŪL ŠA^{URU} Gašg[a[?] iya]r taparta^{URU} Gašgan≈za≈kan³⁶*
 [(o) o o o] × ×[-o]¹⁴ *ši-e-et-ta ne[iat]^{15 37} [n≈an ŠA LUGAL-UTTIM iyar] taparta*
 “That Pihhuniya [did not] rule like [a] Gasg[ae]an. He even tu[r]ned the Gasga ši-e-et
 [...]. He ruled [it like a king].”
 (KUB 14.17 ii 34-37 (NH annals, Mursili II, CTH 61 II), ed. Goetze 1933: 88-89)

The same passage is rendered as follows in the 10-year Annals:

- (2b) §⁷⁶ *namma^m Pihhuniyaš ŪL ŠA^{URU} Gašga iyar taparta⁷⁷ hūdāk mahhan INA*
^{URU} *Gašga ŪL ŠA 1-EN tapariyaš⁷⁸ ēšta aši≈ma^m Pihhuniyaš ŠA LUGAL-UTTIM iyar*
⁷⁹ *taparta nu≈šši^d UTU-ŠI pāun*
 “Furthermore, Pihhuniya did not rule like a Gasgaean. Suddenly – when there was no
 rule of one in Gasga – that Pihhuniya ruled like a king, and I, My Majesty, went
 against him.”
 (KBo 3.4 iii 76-79 (NH annals, Mursili II, CTH 61 I), ed. Goetze 1933: 88-91)

Lines iii 78-79 lead to my restoration of KUB 14.17 ii 37 as [*n≈an ŠA LUGAL-UTTIM iyar*] *taparta* (see also lines iii 30-31 in the next example).

The Gasga had always been a collective of chiefdoms, but they usually did not form a unity under one ruler. Before Pihhuniya could become king, he must have united the separate chiefdoms. This order of events is explicitly described in another passage from the extensive Annals dealing with another hostile leader:

- (2c) ²⁹ [*nu≈m*] *u kūruriahta nu≈za≈kan KUR^{URU} Kalāšma³⁰ [1-e-e]t-ta nejat n≈at*
LUGAL-uēznaš³¹ iya[a]r taparta
 “He (Aparru) became hostile towards [m]: he even turned the country of Kalasma
into [on]e, and ruled it li[k]e a king.”
 (KBo 2.5 + KBo 16.17 iii 29-30 (NH annals, Mursili II, CTH 61 II), ed. Goetze 1933: 188-189)

Although [1-e-e]t-ta is not completely preserved, it is absolutely clear that Goetze’s restoration is correct. The expression 1-e-et-ta nai- “to turn into one, to unite, to gather” is twice attested elsewhere in similar contexts (CHD L-N: 361)¹⁶.

The expression [1-e-e]t-ta nai- in ex. (2c) is accompanied by the particles ≈za and ≈kan. These same particles also occur in ex. (2a). Given the assumption that Pihhuniya

¹⁴ Contextually a restoration [da-pi-ja-a]n?? K[UR-e??] “the whole country” seems plausible. However, the signs on the photograph are very unclear.

¹⁵ Goetze l.c. restored] *ši-e-et-ta ne-it?-ta?* ×[: “... und das ...”. Although he did not mention *ši-e-et-ta* in his glossary, I believe that he tentatively read it as a preterite of *šāi-/šīye-* “to impress, etc.”. The next sign, a clear NE, could in that case be the first sign of the sentence initial clitic cluster *ne-et-ta* “and it to you”. However, the signs IT and TA can not be clearly discerned on the photograph, as Goetze already indicated by means of his question marks.

¹⁶ CHD L-N: 361 cites KUB 21.37 obv. 17 (*n≈ašta UN.MEŠ-tar 1-e-et-ta nehhun* “I united the populace”), KUB 26.12 + 21.42 ii 29-31 (*nu KUR.KUR.HIA BAL [d]apianda 1-e-et-ta naiškitten* “You have united all the rebellious lands”) besides our KBo 2.5+ (the CHD, l.c. seems to consider 1-ētta as a simplex form, and accordingly does not read the particle -ja here). See for the expression 1-e-et-ta nai- also Sommer & Falkenstein 1938:143, Melchert 1977: 376-378, Eichner 1992: 39-40.

should have united the Gasga before he could become king, I suggest that in ex. (2a) the clause ^{URU}*Gašgan≈za≈kan* [(o) o o o]× ×[-o] *ši-e-et-ta ne[īat]* is equal to the clause *nu ≈za ≈kan* KUR ^{URU}*Kalāšma* [1-e-e]t-ta *nejat* in ex. (2c). This equation gives *ši-e-et-ta* = [1-e-e]t-ta.

Morphologically, *1-e-et-ta* / *ši-e-et-ta* is probably an instrumental with the emphasizing particle *-ja* “even”. Syntactically, it could be an adverbial instrumental, which sometimes literally means “with one (blow)”, but which here should take the meaning “as one” (compare for example the adverbial instrumental *pangarit* “in large numbers, *en masse*”) (Melchert 1977: 376-378). However, Eichner 1992: 39 gives a different analysis of *1-et-ta*. He suggests that *1-e-et* in the expression *1-ēttā* is functionally similar to *ke-e-et* “on this side” (o.c. 40)¹⁷, i.e., he treats *1-ētt≈a* as an adverb of relative position, translating *1-et-ta nai-* as “to direct to one particular side”. In view of the discussion *sub* ex. (9a) I tend to follow Eichner.

Although it is clear that *ši-e-et* is the same as *1-e-et*, I will still present here the arguments against a classification of *šia-* as a demonstrative or accented pronoun. If *ši-e-et* as an instrumental of means or accompaniment “with this, that” were a deictic demonstrative, it should refer to an object in the speech situation. Given the type of text genre, historical narration, this is not possible. Furthermore, *ši-e-et* can neither refer to a location relative to another position (“this, that side of”) since there is no location in the speech situation to which this could apply.

The instrumental *ši-e-et* as an anaphoric pronoun “with it, that” should refer to an entity immediately mentioned before. In the context of ex. (2a) no such entity can be found. Besides, the instrumental is hardly used anymore in New Hittite, except for the numeral ‘1’ (Melchert 1977: 371f.). We should expect the ablative *ši-e-ez* instead if it were a demonstrative or pronoun, like the ‘instrumental’ ablatives *ke-e-ez* or *a-pe-e-ez*.

To conclude the discussion of ex. (2a), the translation of the relevant clause is: “He **even** tu[rned] the Gasga [, the whol]e(??) c[ountry (??),] **into one**”.

¹⁷ However, *1-e-et-ta* and *ke-e-et* may not automatically be compared. Already in Middle Hittite the forms *ke-e-et* “on this side” and *e-di* “on that (yon) side” were replaced by the ablatives of direction *ke-e-ez* and *e-de-ez* (Melchert 1977: 251, 303). Certainly in a NH manuscript such as the Annals the use of an instrumental instead of an ablative of direction should be excluded; one would expect *1-e-ez*, or *1-e-ez-zi-ja* with *≈ja* “and, also, even”. The only solution to this problem is to consider *1-e-et-ta* as an in Old Hittite times frozen expression, which in later times was not replaced by a more appropriate ablative of direction (see also the discussion in the summary, below). Eichner (1992: 39-41), not using this argument though, indeed derives *1-et-ta* from morphologically complex *1-ašša* (*1-aš+ja*) “each”, already attested in an OS text (*1-aš-ša* ^{Giš}*māhlaš* “each single vine” KUB 43.23 rev. 21’). The problem with Eichner’s ascription of *1-e-et-ta* to *1-ašša* “each single one”, is that *1-e-et-ta* should mean both “to each single side” and “(only) to a single side, just a single side, to one and the same side” (his line of reasoning will not be repeated here, see further Eichner o.c., 40 and 41). Besides that, Hittite already possesses a restrictor “only, just”, the particle *≈pat*, which makes it difficult to accept that *1-ašša* could mean the same. To conclude, I prefer to follow Melchert’s solution that *1-e-et-ta* is an instrumental with *≈ja* “even”. I do follow Eichner however in classifying *1-ett≈a* as a ‘lateral’ instrumental.

The last example – if it belongs here at all¹⁸ – that conclusively shows that *šia-* is neither a demonstrative nor an accented pronoun occurs in a cult inventory describing the situation in the city of Sanantiya:

(3) ^dUTU-ŠI ME-iš URU-aš še-e-za SUM-zi¹⁹

“His Majesty has instituted (it). The city shall give (it) še-e-za”.

(KBo 2.1 iv 14 (NH cult inventory, Tudhaliya IV, CTH 509), ed. Carter 1962: 51-59, tr. 60-70; notes 71-73)

This text describes for several cities the inventory of divine statues, daily offerings, festivals, and offerings which the king has instituted, the state of the temple, and whether there is a priest or not. The expression “the city gives” occurs in four paragraphs and usually takes the form URU-aš SUM-(iz)-zi (= *peškizzi*) “The city shall give (it)” (KBo 2.1 ii 29, ii 38, iii 32). Only in the case of KBo 2.1 iv 14 the abl. *še-e-za* is added.

If *še-e-za* were a deictic demonstrative, it should refer to an entity or location in the world surrounding this text. Since referents of deictic demonstratives should not be mentioned before, the city Sanantiya and its location are excluded. Remaining options are ‘give from here (near me)’, ‘give from there (near you)’ and ‘give from there (near another, different from the city)’, but none of these options makes sense. The ablative *še-e-za* as an ablative of direction like *kez* “on this side”, *edez* “on that side”, resulting in “the city gives on this/that side (of what??)”, is also meaningless. Finally, *še-e-za* could be an ablative of means, but in that case the object “with this/that” has to be present in the surroundings of the text, which is impossible²⁰. Thus, *še-e-za* does not function as a demonstrative.

If *še-e-za* were an accented anaphoric pronoun, like *apēz(za)* it either should refer to a referent which is mentioned before or it should refer to a preceding piece of discourse. The meaning of the clause could be “the city gives from there” (ablative of separation) or “the city gives because of that” (ablative of cause). “From there” meaning “from the city itself” seems to be impossible: such anaphoric relationships within one clause do not seem to occur in Hittite, and other locations are not mentioned. The ablative of cause “because of that” could mean ‘because of the king’s orders’, referring to the preceding clause “the king instituted (it)” However, the phrase should contain an additional element of not knowing why the action described in the *še-e-za* clause occurred (‘Why does the city give it? Because of *that* the city gives it’). More specifically, it should be unknown,

¹⁸ In view of the orthography *še-e-* instead of the regular *ši-e-* Neu was not certain whether the abl. *še-e-za* belonged to *šia-* “dieser” (1983: 167 n. 489: ‘fällt hierher gehörig’).

¹⁹ Carter 1962: 58 read URU-aš-še-e-za SUM-zi, transl p. 69: “The town gives (these things) to him”. This analysis is impossible. Most importantly, the dat.sg. enclitic *-še* is only Old Hittite (and partially Middle Hittite) whereas we have exclusively *≈ši* in texts that are composed in New Hittite times.

²⁰ The other uses of the ablative in New Hittite texts, i.e. the ablative of time from which, of cause, perlocative ablative, of accompaniment, of respect, of agent, the adverbial ablative (Melchert 1977: 346ff.) are equally impossible.

somehow surprising or contra expectations that the city gives what the king has ordered²¹. This is ofcourse impossible in the Hittite cultural context: there should be no surprise whatsoever in obeying the king's orders. Stressing of the reason should therefore not occur. To conclude, *še-e-za* does not function as an accented anaphoric pronoun.

In view of the two preceding examples the next question is, could *še-e-za* be the ablative of the numeral '1'? The meanings 'from one', 'with one', 'because of one', etc. do not make sense. In contrast with example (2a), there are no comparable attestations of *1-e-ez* or *1-e-da-az*, besides a possible example of an adverbial ablative *1-edaza* "all at once, at a single stroke" in KBo 18.54 rev. 26' (Melchert 1977: 386-7). An adverbial ablative seems indeed possible if we compare the offerings which are required by the four cities (see Table 1).

KBo 2.1 ii 21-31	KBo 2.1 ii 32-39	KBo 2.1 iii 26-33	KBo 2.1 iv 1-16
offerings which the king instituted: 1 bull 14 sheep 5 PA, 4 seah flour 4 vessels of low-grade beer 10 vessels of beer 1 huppar of beer 3 seah spelt for the <i>harsi</i> -vessel	offerings: 1 bull 4 sheep 4 PA, 1 seah flour 1 vessel of low-grade beer 11 vessels of beer —	offerings: — x sheep? 2 seah flour — — 3 seah? spelt for the <i>harsi</i> -vessel	offerings which the king instituted: 3 bulls 93 sheep 33 PA, 2 seah flour — 13 vessels of beer 4 PA spelt, 2 PA wine for the <i>harsi</i> vessel
the town gives (ii 29)	the town gives (ii 38)	the town gives (iii 32)	the town gives <i>šēza</i> (iv 14)

Table 1. List of offerings.

The first three cities all have to provide comparable amounts of animals, flour, spelt, beer and wine. Only the last city is required to give much larger amounts of most types. Here we also find the clause with *še-e-za*. This should not be a coincidence. As an adverb it could modify the way in which the city has to give the required offerings, which are much more than usual. Compared with the phrase ÉRIN.MEŠ $\approx$ *ma* $\approx$ *mu* ANŠE.KUR.RA.MEŠ

²¹ The element of surprise in connection with a causal *apez* is for example observed in KUB 1.1 iii 61 (Otten 1981: 22-23) "Hakpissa however he did not take away from me on divine order. Because (*kuit*) I was priest of the Stormgod of Nerik, for *that* reason (*a-pé-e-ez-za*) he did not take it (the city) away from me". In the context of the demotion of Hattusili the reader might ask *why* to the reader's surprise Urhi-Tessub did not also take the city Hakpissa away from him. The answer is provided by the immediately following *kuit* clause, and stressed in the *apez* clause. The element of not knowing is mainly found in oracles, for example in KUB 22.70 obv. 31 (Ünal 1978: 62-63) "And as for that fact that (*eni kuit*) Ammattalla has spoken, but (that) we have not yet investigated whether (her) statement is true, or how (it is); (that) they have not included (it) in the oracle inquiry – if the oracle outcome has happened for *that* reason (*a-pé-e-ez*), ...". Again there is the implicit question why the oracle outcome has happened. In the *eni kuit* clause the possible answer is provided. The question is then phrased as an indirect yes-no question (the conditional clause), with stress on the possible answer (*apez*).

tepaŋaz paiš “But he gave me infantry and cavalry in small numbers” (KBo 3.6 ii 21-22), our clause could mean “the city gives (it) in one > the city gives (it) all together”. Another possibility is “the city gives (it) alone (without assistance of others) > the city gives (it) all by itself”. The latter option seems to make the most sense.

To conclude this section, the pronoun *šia-* in these examples is neither a demonstrative nor an accented anaphoric pronoun. The meaning of *šia-* as “one” was firmly established in exx. (1) and (2a), and possible in ex. (3).

A counter example? Only at first sight.

The next example contains a construction which, at first sight, is similar to the deictically used ablatives of direction *edez* “on that side of” and *kez* “on this side of”:

- (4a) § ¹⁴ *perann≈a hantezzijaz INA [(K)]Á^{GIŠ}GAG ŠENNUR ši-i-e-ez¹⁵ ual(a)hzi n≈ašta ŠA ZÌ.DA ŠE [(ku)kk]u¹lan zanuṽandan¹⁶ harijantejašš≈a [ZÌ.]¹⁷DA¹[ŠE kukk]ulan 1 DUG KUKUB GEŠTIN¹⁷ ganki ke-e-ez≈ma K[(Á-az)^{GIŠ}GAG^{GI}ŠMA.NU ual(a)hzi¹⁸ n≈ašta ŠA ZÌ.DA ŠE ku[(kkullan)]zanuṽantan¹⁹ harijantijašš≈[(a)]¹⁷k¹ukkulan Û 1 DUG KUKUB GEŠTIN²⁰ ganki*

§ “And before (the gate) in front, he hits the peg of apricot(?) wood in the gate *ši-i-e-ez*²², and hangs a boiled *kukkula*-(bread?) of barley flour, a *kukkula*-(bread?) of *h*. barley flour and a jug of wine (on it). But on this side (*kēz*) of the gate he hits [the peg] of cornel wood, and hangs a boiled *kukkula*-(bread?) of barley flour, a *kukkula*-(bread?) of *h*. barley flour and a jug of wine (on it).”

(KUB 9.31 i 14-20, dupl. HT 1 i 7-13, KUB 35.10 I 2'-6', KUB 56.59 iv 11-15 (MH/NS ritual, CTH 757B))

The construction *šīēz ... kēz* might point at a distal demonstrative value for *ši-i-e-ez*, functioning like *edez*, the ablative of the distal demonstrative *aši*, in *edez ... kēz* “on that (the far) side (of ...) ... on this (the near) side (of ...)” (as for example in KUB 19.20+KBo 12.13 obv. 9' ff.). The problem with this combination is that we need a clearly retraceable external viewpoint, or Deictic Center, from which the whole situation is viewed. In this case a location different from the gate is necessary in order to be able to say: “on the far side of the gate ... on the near side of the gate”. Besides the fact that such a viewpoint can not be inferred from the context, another objection against an interpretation of *šīēz ... kēz* as similar to *edez ... kēz* is the occurrence of the couple *kēzza kēzzi≈ja* “on one side ... on the other side” (lit. “on this side ... on this side”) in line i 23 (*kattan hantezzijaz*²³ *ke-e-ez-za ke[-e-(ez-zi-ja)]uašši huṽallari ŠUM≈ŠU*²⁴ *hariaz[(zi)* “Below (the pegs) in front (of the gate) he buries the drug called *huwallari* on one side and on the other side (= on either side)”).

As is already indicated by the translation, the expression *kēz ... kēz* is indifferent with respect to the orientation of an object. The sides of the object are not further specified.

²² Melchert 1977: 324 lists the clause containing *ši-i-e-ez* under the heading ‘Problematic Cases’ and leaves it untranslated.

This unspecified use of *kēz* is (almost) the equivalent of the correlatively used ablative 1-*edaz* in the next example:

- (4b) *nu≈ššan 1-e<-da>-az KÙ.BABBAR GUŠKIN NA₄.H₁.A≈ja hūmanduš dāi* ²⁸ *[1]-e-da-az≈ma≈ššan šalūinan dāi*

“(The old woman [t]akes (weighing) scales.) On one side she places all the silver, gold and precious stones, on the [other] side she places mud.”

(KUB 30.15 obv. 27-28 (CTH 450.1), ed. Otten 1958: 68-69)

It should not be too surprising that the similarity of the expressions *kēz* ... *kēz* and 1-*edaz* ... 1-*edaz* could lead to a conflation. As Elisabeth Rieken pointed out to me, in colloquial German one can encounter phrases like “zum einen ... andererseits” instead of “zum einen ... zum anderen” or “einerseits ... andererseits”. It seems therefore possible that the scribe made a ‘slip of the stylus’, inadvertently starting with a member of one of the correlative series and finishing with a member of the other series: “And before (the gate) in front, he hits the peg of apricot(?) wood in the gate **on one side**, But **on the other side** of the gate he hits [the peg] of cornel wood”.

Supportive but not conclusive examples

Without the exx. (1) to (3) the nature of *šia-* would have remained unclear because the following examples all allow multiple interpretations. However, given that the meaning “one” fits each of them, they serve as supportive material.

The first example falls somewhat in the semantic field described sub ex. (4). Instead of *kā-* ... *kā-* or 1-*a-* ... 1-*a-* we now have the couple *šia-* ... *tamāi-* “the one ... the other”:

- (5) *namma≈ta≈kkan ŠA KUR^{URU} HATTI kujēš LÚ.MEŠ pittejanteš anda ija[ntat]* ³⁵
^m*Madduwattaš≈ma≈aš≈za daškeš [ABI^d]UTU-ŠI≈ma≈tta^dUTU-ŠI≈ja EGIR-anta*
hatreškir zig≈a[?]≈aš āppa Ū[L paitta] ³⁶ *[nu≈t]ta mān ši-e-ta-ni uddanī* ³⁷ *[a(?)]* *[-*
appa h]atrāuni zig≈a≈nnaš namma uddanī āppa arkuṣar Ū[L ijašī²³] ³⁷ *[nu≈]kan*
tamāi kueikki uddār [o o²⁴ nu]≈nnaš EGIR-pa tamāi uddār hatreški[ši]

§ “Further, which fugitives from Hatti went over to you, now you, Madduwatta kept taking them. [The father of] My Majesty and My Majesty kept writing to you afterwards, you however, did not [give] them back. When we write b[ack] to you on account of *ši-e-ta-ni* affair, you, surprisingly (-a), do not [present] us with an apology about the affair in return, [...] about some *other* (*tamāi*) affairs, you keep writing us back about the *other* (*tamāi*) affairs!” (KUB 14.1 rev. 34-37)

(MH/MS indictment, CTH 147), ed. Goetze 1928: 28-29)

The expression *šietani uddani* could be considered as a discourse deictic expression referring to the preceding piece of discourse, which describes the case of the fugitives.

²³ Goetze 1928: 28 restored *ištamašti*. But HED A: 149 restores *ija-*: ‘thou dost not even make excuses to us in the matter’.

²⁴ Goetze 1928: 28 restored *hatraši*. However, *hatrai-* does not seem to occur with *-kan*. The verb is not cited in Boley 2000, and not one example with *-kan* occurs in HED H: 269f.

Compare for example the discourse deictic use of the 3rd person/distal demonstrative *aši* in KUB 6.41 i 34: § ³⁴ *maḥḥan≈ma* ^dUTU-ŠI *uni memian* *AŠME nu* ^dUTU-ŠI ^mPÍŠ.TUR-an ³⁵ *ŪL* *kuitki* *HUL-uanni šanḥun* “But when I, My Majesty, heard about that affair, I, My Majesty, did not seek evil against Mashuiluwa at all.” An example with the 1st person/proximal demonstrative *kā-* is KUB 15.1 ii 25 § ²⁵ [*mā*]nn≈a≈mu *kēdani INIM-ni* ^dLUGAL-*maš* EN≈YA ²⁶ [GEŠTU-*a*]n *parā ēpti ištamašti≈mu* ... “And if you, Sarruma, my lord, lend me your ear in this matter, and listen to me, ...”.

Another possibility is that *šietani* is used like the accented anaphoric pronoun *apā-*, see for example Bo 86/299 iii 6-8: ⁶ *n≈at damēdani uarūalani ŠA* ^mNIR.GÁL *pāi* ⁷ ANA NUMUN ^{md}LAMMA≈ma≈at≈kan *arḥa dāi nu kuiš a-pu-u-un memian* ⁸ *iḫazi* “..., he gives it (i.e., the kingship of Tarhuntassa) to some other relative of Muwatalli while taking it away from the offspring of Kurunta, anyone who performs that act, (may the gods destroy him ...)”.

The meaning “one” however, also makes sense: “When we write b[ack] to you on account of **one** affair, *you*, surprisingly, do not [present] us with an apology about the affair in return, ..., you keep writing us back about **other** affairs!” This remark might refer to the usual behaviour of Madduwatta. Throughout the document the king describes how Madduwatta receives many reprimands and questions concerning his behaviour. Madduwatta never apologizes though, and always has his answer ready.

In the testament of Hattusili I we find the gen.sg. *ši-i-e-el* in a context which seems to show a thorough understanding of the society of wolves:

- (6) ⁴⁶ [*šumenzan≈a*] *uētnaš mān pankur≈šme* [t 1-EN] *ēšdu* ⁴⁷ [*n≈at m*]ūḫan²⁵ *ēšdu ši-i-e-el* ARAD.MEŠ≈ŠU [INA 1 AM]A *ḥaššanteš*

§ “[Now,] let [your] ‘pack’ be [united] like (a pack) of wolves, and let [it] be [awe-]inspiring! *ši-i-e-el* subjects are born [to one mo]ther.”

(KUB 1.16 ii 46-47 (OH/NS proclamation, CTH 6), ed. Sommer & Falkenstein 1938: 8).

As a deictic demonstrative *šīl* “his, that one’s” should refer to an extra-linguistic entity. Obviously a wolf is not present, so only Mursili might be an option if the clause “the subjects of Mursili are born to one mother” would make any sense. Clearly, *šīl* is not used as a deictic demonstrative. As an accented anaphoric pronoun it should function like *apēl*, and has to refer to a wolf: “His subjects are born to one mother”. The use of an accented pronoun should at least indicate some contrast. One could think of a contrast with an implicit set of somebody else’s subjects: “in contrast with the subjects of others, the wolf’s subjects are born to one mother” although the need for expressing such an implicit contrast in the present context is not clear to me. Linguistically this translation is still possible, although the occurrence of two emphatic 3rd person pronouns is difficult to account for, as I stated above (section “Formal characteristics...”).

²⁵ Sommer & Falkenstein 1938: 8-9 read [*ku-u-ru-ur(?) n*]u-*ya-an e-eš-du* “[Zwist(?)] darf es nicht mehr(?) geben!”. The restoration *nuyān* is difficult since its basic meaning is “not want to”. Moreover, the translation “no longer” or similar is expressed by means of *namma UL* (CHD L-N: 471f.).

Contextually it is much more plausible to take *ši-i-e-el* as the genitive of “one”. In a wolf pack only the alpha-couple breeds. This means that all the members of the pack are offspring of the number one wolf, and not simply of ‘the’ wolf, as *ši-i-e-el* as accented anaphoric pronoun would indicate. But not only that, the subordinate wolves themselves are not allowed to breed. Instead, they protect and help raising the pups of the alpha couple. The social structure of the wolf pack is therefore a beautiful metaphor for the message of Hattusili I, for in this way he reminds the nobles that they (probably) all belong to the royal extended family and that they therefore have a duty towards the direct offspring of the king, Mursili. Not that they are not allowed to have children ofcourse. Like the pack of wolves, they have to protect and help raise the young prince, and later obey him. The translation thus becomes: “The subjects of **the chief / the number one (wolf)** are born [to one mo]ther”.

The next example is closely connected with the preceding one. For the interpretation I am much obliged to Elisabeth Rieken. At the conference in honour of Professor De Roos I suggested that *ši-an-na* in the oracle KUB 6.3: 14 might contain the neuter of *šia-*, in view of the attested nom.-acc.sg.neuter 1-*an*. Professor Rieken’s solution (personal communication, email 13-1-2004) to take *šian* as the acc.sg.comm. instead and, in view of the occurrence of *pangur*, connect it with the meaning “the number one, i.e. the chief” in the preceding example is convincing in my opinion:

- (7) §¹³ *kī kuit TI-anni SIG₅- 𐎶𐎵 ta pangur≈za pariaanda* ¹⁴ *ši-an-na* GIM-an taparti DINGIR-LUM≈an arnuši apēdani ¹⁵ *mēhuni ilaššanahhi≈at≈za SIG₅-ru*

“As for this (fact) that (it) was favorable for the life (of the king), as you command beyond the clan (i.e. ‘in addition to the clan’) even the number one (*šiann≈a*, i.e. the king), will you, o god, bring him to that time? Does (it) signify that? Let (it) be favorable.”

(KUB 6.3: 13-14 (NH oracle, CTH 572), CHD P: 93, S: 21)

CHD S: 21, with reservations, analyzes *ši-an-na* as the infinitive of *šai-/šiye-* and translates our clause as “as you command the ‘pushing’ beyond of the *pangur* (the family line?), ...”. The meaning of this clause is utterly unclear, whereas translating *ši-an-na* with “even the number one” not only makes sense, but also resolves the problem of the otherwise missing antecedent for -*an* “him” in line 14.

The next example is contextually and culturally not very clear:

- (8) ^{14'} *nu* ^{LÜ} AZU Ì.DUG.GA *pēdai nu ŠA GIŠ* ^d [(INANNA *šūtari* *peran*)] ^{15'} *ši-e-ez tepu iškizzi hurlili* [(≈*ma kiššan memai*)] ²⁶

“The magician brings the fine oil. He first (?) anoints the *šūtari* of the lyre/zither a little *ši-e-ez*, but (then) he speaks as follows in Hurrian: (...)”

(KBo 35.84 rev. iv 14'-15' (including KBo 24.57), with dupl. KBo 23.42 + KBo 35.76 rev. 24'-26' (NS ritual, CTH 701), ed. Salvini & Wegner 1986: 169-170)

²⁶ The signs in the hand copy of the duplicate KBo 35.76 rev. 24' are not clear. One could also read 𐎶𐎵. However, the photograph favors a reading 𐎶𐎵 - 𐎶e. The width of the lower part of E is the same as the sign E in line 26'. The RI part of AR on the other hand is too far removed from the ŠI part in comparison with the sign AR in KBo 23.43 obv. i 6. I like to express my gratitude to Silvin Koşak and Jared Miller of the project Hethitische Forschungen at the Akademie der Wissenschaften und Literatur Mainz for allowing me to use the photographs of KBo 35.76 and KBo 23.42.

The arguments dismissing *ši-e-ez* as a deictic demonstrative are listed sub ex. (3). As anaphoric pronoun the only possible option is that it refers to the oil in the preceding clause, leading to “He first (?) anoints it with that, ...”. Contextually *ši-e-ez* could easily be omitted because the verb ‘to anoint’ already implies that it is done with the oil. The use of an accented pronoun should indicate some contrast or unexpectedness, which does not seem to be present.

With *ši-e-ez* as an ablative of direction meaning “on one side”, we get “He first anoints the *šūtari* of the lyre/zither a little **on one side**, ...”. What this ultimately means, depends on the interpretation of the noun *šūtari*.

The last form possibly belonging to the paradigm of *šia-* “one” occurs in a notoriously difficult passage from KBo 22.1. The troublesome word is *ši-e-et*, which either belongs to the pronoun *šia-* or should be understood altogether differently as an accusative “his things”²⁷. In view of the exx. (9c) and (9d) I prefer the former option.

- (9a) ^{26'} LÚ.MEŠ NAŠI ŠIDITI≈ŠU natta punuštēni ^{27'} ta LÚ ḥappinandaš ištēni ^{28'} parna≈šša
 paiši ēzši eukši piḡanazziatta ^{29'} LÚ ašiyandan≈a ši-e-et dātti ^{30'} DIN≈ŠU natta punušši
 “[Now, mind this: You go into the country, (but) you do not avenge the blood of the
 poor man.] § You (pl.) do not question his provision carriers, you (pl.) do (the wishes)
 of the rich man: You (sg.) go to his house, you eat, you drink, you are rewarded. The
 poor man however you take ši-e-et (and) you do not investigate his legal case/rights.”

(KBo 22.1 26'-30' (OS proclamation, CTH 272), ed. Archi 1979: 47)

The only possible option for *ši-e-et* as a deictic demonstrative is that it could function like the deictic adverbs of relative position *ke-e-et* ... (*e-di*) “on this side ... (that side) of ...”²⁸. As instrumental it could function like an ablative (“take from here/there”), or as a true instrumental it could mean “take with/by means of this/that”. The arguments against a deictic use of Old Hittite *ši-e-et* are similar to the arguments with respect to New Hittite *še-e-za* presented in ex. (3). Thus, the pronoun *ši-e-et* does not function as a demonstrative pronoun.

As accented anaphoric pronoun *ši-e-et* must refer to something in the preceding text. Used as an adverb of relative position it could mean “take to this/that side (of something)”, with the point of reference retrievable from the preceding text. The only

²⁷ Archi 1979: 47 ‘et (du) pauvre tu prendras le sien’; Starke 1977: 176 takes LÚ ašiyandan(≈a) šiet as two accusatives in partitive apposition ‘Das Seinige (d.h. die Habe, der Besitz) des Armen’, followed by Boley 2000: 229; Yoshida 1987: 36 follows HW² A 406 concerning the gen.; Marazzi 1988: 128: ‘e (facendo così) derubi il diseredato del suo’; Melchert 1994: 107 *ši-e-et* ‘his things’ as the orthotonic version of enclitic *-šet* ‘his’; Boley 1995: 58 with n. 1: ‘you take the poor man’s thing (but do not investigate his case)’. Neu 1984: 99, rightly I believe, severed the ties between the neuter enclitic pronoun *-šet/-šit* and *ši-e-et* in view of the orthography of the latter and considered it as the endless ‘locative’ of *šia-* (*šja-* in his view).

²⁸ Neu 1984: 99 translated our phrase as “you take the poor man there”, see also Neu 1983: 167⁴⁸⁹ “(jem.) dorthin (mit)nehmen?”. These translations are based on a comparison with *kēt*, which in Neu’s view could mean “here, hereto” (1980b: 20f.). However, as Melchert already noted in 1977(262), *kēt* only means “on this side of ...”. For the notions “here, hereto” Hittite employs *kā(ni)*.

option seems to be ‘this/that side of the rich man’, but the meaning of such a phrase completely eludes me. However, one can not exclude the pronoun *ši-e-et* as an instrumental functioning like an ablative of separation “take the poor man from there, i.e. from the rich man’s place”. Finally, Melchert (1977: 174) originally proposed “by that, thereby” for *ši-e-et*, i.e., as an instrumental of means²⁹, leading to “you thereby ‘take’ the poor man”. In this case ‘take’ has a meaning which is unknown (Melchert l.c.).

The use of *dā-* “take” with only a subject and object is treated by Tjerkstra 1999. When the object is animate, *dā-* is used in the sense of *šarā dā-* “to take up a person (into one’s care)” or more negatively, “to arrest a person” (o.c., 112-113), *para dā-* “to pick out” (o.c., 115) or *-za dā-* “to take a person (sexually), to marry” (o.c., 98-99). If we now interpret *ši-e-et* as an instrumental used as an ablative of cause “because of that”, the following translation seems possible: “You (sg.) go to his house, you eat, you drink, you are rewarded. The poor man however you arrest because of that (and) you do not investigate his legal case/rights”. Thus, *šia-* could be an accented anaphoric pronoun although the line of reasoning leading to this conclusion is quite far-fetched.

However, Melchert already pointed out that the officials do not seem to be accused of cheating the poor man, but of neglecting or ignoring him (1977: 174). If *šia-* means “one”, the expression *ši-e-et dā-* should be compared with other expressions containing *1-e-et-(ta)* in the sense of neglecting or ignoring someone or something. One interesting text which seems to express this sense with *1-e-et-ta* and the verb *peššiia-* “to throw” is KUB 57.115:

- (9b) § 2' MUNUS-za≈ma≈tta kuiš [ŪL ...] 3' n≈an arḥa pešši[ia n≈an EGIR-pa lē (?)] 4' tat[ti (?)] § 5' MUNUS-za≈ma≈tta kuiš ŪL [...] 6' dudduḡanza n≈aš≈ta [...] 7' ŪL kaniniḡanza [ø] 8' [n]≈an 1-e-et-ta peš[šiia]

§ “The woman that [is not ...] to you, reject[t] her. [Do not (?)] ta[ke her back (?)]. § The woman that [is] not gentle(?)/quiet (?) [...] for you, and is not submissive towards you [...], thro[w] her also 1-e-et.”

(KUB 57.115 obv. 2'-8' (NS, CTH 832)).

Although the text is too broken to compare the acts of the wife in the first and the second paragraph with each other, it seems that the act of the wife in the first paragraph is serious enough to be rejected. In the second paragraph the wife is not obedient enough. One could imagine that the proper punishment is (temporary) neglect. This might be expressed by *n≈an 1-ētt≈a peššiia* “Throw her also to the lone side > leave her also alone”³⁰. Thus, *1-e-et* could function like an adverb of relative position “on one side”³¹, a lateral

²⁹ Melchert later changed his opinion, see fn. 26.

³⁰ One of the meanings of ‘1’ is: ‘stressing isolation or uniqueness’, ‘single’, ‘alone’, ‘without companion’ (Eichner 1992: 35).

³¹ The verb *peššiia-* is also found with the ablative *apezza* as adverb of relative position in KBo 4.9 vi 6-8 (OH?/NS): “The king throws aside (*arḥa*) the linen cloth”. ⁶ *ta mān* DUMU.MEŠ É.GAL *kuēzzi* ⁷ *par(a)šnan ḡarkanzi n≈at apezza* ⁸ *peššiiazi* “On which side (*kuēzzi*) the palace attendants are squatting, to that side (*apezza*) he throws it”. The comparison of *1-et(ta) peššiia-* with *apezza peššiia-* strengthens the suggestion that *1-et(ta)* is not to be translated as “with one blow, as one”, but as an adverb of relative position “on one side” (see above, p. 174 with n. 17).

instrumental as Eichner 1992: 40 calls it in another context (see ex. 9c). The particle *-ja* “also” probably refers to the reciprocity of the act: if she does not look after your needs, then you should ignore her *too*.

- (9c) ^{11'} *maḥḥan≈ma* LÚ ^dU *uddār* [ø] ^{12'} *memijauanzi zinnāi* [ø] ^{13'} *n≈ašta* DUMU.É.GAL
DUG ^{14'} *parā* ^{15'} *Ē ḥīli pēdai* ^{15'} *ṛn≈an* ¹ *1-e-et-ta* *dāi* × [...]

“(He sprinkles water out [...]) and the king washes his hands over the pebbles. The man of the Stormgod however recites in Hattic as follows: “...” § Now, when the man of the Stormgod finishes speaking the(se) words, a palace attendant carries the bowl out to the courtyard, and takes it also (?) *1-e-et*”.

(KUB 48.10 ii 15' (NS, CTH 744, with dupl. KBo 37.91))

Eichner 1992: 40 derives *dāi* from *dai-/tiḫa-* “place, put” (“and puts him on (one and) the same side”), but I prefer *dā-* “take”, not only in view of ex. (9a), but also in view of the possible attestation of *še-e-et dā-* in ex. (9d), see below. In English of course one prefers “set, place, put”, but the semantics need not be the same in Hittite. The translation thus derived at is “He takes it to **one** side > he takes it **aside** (to be left alone)”. Why the particle *-ja* “also” is present is difficult to judge given the broken state of the tablet.

The next Old Hittite example might contain an attestation of *še-e-et* and is interesting given the occurrence of *dā-* “take”, which brings it semantically close to ex. (9a):

- (9d) § ^{11'} [*ŠA* ^fUM(MEDA[?] *-ašš≈a* 3 DUMU.M)]EŠ-ŠU ^d*hann*[(*aḥan*)ni ... *daranzi*?] ^{12'}
[*šum*(*āš≈a≈u*)a (*š*)e^{??}-]e-et³² *tumēn*[(*i* *itte*)n≈*ua*...]

“The three sons of the [wet-]nurse [speak to] Hannahan[na and to ...]: “Now [yo]u (pl.) we will take a[s]ide (= leave alone, ignore). Yo[u] (pl.) must go [and ...]”

(KUB 43.25: 11'-12' (OS myth, CTH 336), with NS dupl. KUB 33.60).

Summarizing, OS *šiēt dā-*, possibly OH/NS *šet dā-*, NS *1-ēt(ta) dā-*, and NS *1-ēt(ta) peššija-* mean “take aside” and “throw aside” respectively = “leave alone, ignore”. Therefore I translate ^{LÚ}*ašiyandan≈a ši-e-et dātti* ^{30'} *DIN ≈ŠU natta punušši* as: “The poor man however you set **aside** (= neglect): you do not investigate his legal case/rights”, in agreement with Melchert’s understanding of these lines (1977: 174, see above).

The next and final example is only included to complete the list of attestations of *šia-*. The broken text does not allow any conclusion on the function and meaning of the pronoun.

- (10) § ^{7'} *namma≈ma ši-e-da-ni ḥašš[ī]*

“But furthermore on/in one brazie[r ...]”

(StBoT 25.104 obv.[?] ii 7' (= Bo 3752), (OS ritual, CTH 591), ed. Neu 1980a: 179. The online Konkordanz der hethitischen Texte notes “im Mainzer Archiv kein Photo, aber ein Eintrag von H. Otten: “wohl nicht ah., sondern mh.”.”)

³² Laroche 1965: 154 read [*ka*]-*a-ša-wa* ×-×-*it* in KUB 33.60 rev. 12'. The first broken sign of ×-×-*it* possibly shows the first two wedges of *še*.

Summary, paradigm and final remarks

Summarizing the results,

1. The exx. (1), (2a) and (3) conclusively show that *šia-* is neither an accented anaphoric pronoun nor a demonstrative.
2. In the exx. (5), (6), (8) and (9a) *šia-* could be an anaphoric accented pronoun, and in (4a) and (5) it could be a demonstrative, but in view of the results for exx. (1), (2a) and (3) another explanation has to be looked for.
3. The expressions with *šia-* in exx. (1), (2a), (4a) and (9a) can be matched to comparable expressions containing the numeral “one”.
4. The meaning “one” fits all remaining examples.

Clearly, *šia-* must be the numeral “one”. Of the meanings established for *1-a-* and *1-i-* (Eichner 1992: 34f.) the following are attested for *šia-*: ¹⁾ indication of the singular of specimens of a particular object or of a group of persons, exx. (1), (5), (6), (7), (8); ²⁾ stressing of isolation or uniqueness, ‘single’, ‘alone’, ‘without companion’, exx. (3), (9a), (9d); ³⁾ stressing the unity of a combination of two or several parts, ‘one, united, joined into one’, ex. (2a).

Below I present the paradigm of *šia-* and *1-a-* (the relevant forms of the paradigm of *1-a-* are copied from Eichner 1992: 32, with the addition of *1-e-da-za*). Several forms are not attested without the particle *-ia* “and, also, even”. In those cases I will list the form with the particle. The reconstructed forms are listed below the table.

	<i>šia-</i>			<i>1-a-</i>
	OH	MH	NH	
nom.s.c.	∅	∅	∅	<i>1-aš</i>
acc.s.c.	∅	∅	<i>ši-an-na</i> (?)	<i>1-an</i>
nom.-acc.s.n.	∅	∅	∅	<i>1-at-ta</i> , <i>1-e</i> (?)
gen.s.	<i>ši-i-e-el</i> (NS)	∅	∅	<i>1-el</i> , <i>1-e-el</i>
dat.-loc.s.	<i>ši-e-da-ni</i> (MS?)	<i>ši-e-da-ni</i> (MS) <i>ši-e-ta-ni</i> (MS)	∅	<i>1-e-da-ni</i>
abl.	∅	<i>ši-i-e-ez</i> (NS)	<i>še-e-za</i> (?) <i>ši-e-ez</i>	<i>1-e-da-az</i> <i>1-e-da-za</i> <i>1-e-ez</i>
instr.	<i>ši-e-et</i> (OS) <i>še-e-et</i> (?, NS)	∅	<i>ši-e-et-ta</i>	<i>1-e-et-ta</i> <i>1-e-ta-an-da</i>

Table 2. Paradigms of *šia-* “one” and *1-a-*

We can thus reconstruct: nom.sg.comm. **šiaš* /syas/, acc.sg.comm. *šian* /syan/, nom.-acc.sg.neut. **šiat* /syat/ (also **šie* /syē/?), gen.sg. *šīēl* /syel/, dat.-loc.sg. *šiedani* /syedani/, abl. *šiēz* /syets/ and **šiedaz(a)* /syedats/, instr. *šiēt* /syed/ and **šietanda* /syedanT/. If the acc.sg.comm. *šian(na)* is accepted as belonging to the paradigm, then we finally have

conclusive evidence for a stem *šia-*. The two forms with the writing *še-e-* are exceptional, and might not even belong to the paradigm of *šia-*.

Regarding the instrumental *šiēt* / 1-*ēt* and the ablative *šiēz* / 1-*edaz(a)* the following can be observed. In New Hittite the instrumental *šiēt* occurs only in combination with the particle *-ja* “also, even” and never independently, as it does in Old Hittite. On the other hand, the ablative never occurs with the particle *-ja*. We only have *šiēz* / 1-*edaz(a)*, but never **šiēzzi≈ja* or **1-edazzi≈ja* although both forms are linguistically acceptable given the existence of *kēzzi≈ja* (see for example lateMH/MS KUB 19.20 + KBo 12.13 obv. 11') and *apēzzi≈ja* (see for example MH/MS KUB 23.77+ rev. 54').

Although it might be coincidental, it seems that the instrumental of *šia-* with the particle *-ja* and the ablative without it are in complementary distribution in New Hittite, and possibly also in Middle Hittite. As is well known, in post-Old Hittite times the original pronominal instrumentals on *-ed* were replaced by the ablatives on *-ez*. We should therefore not expect the pronominal instrumental *šiēt* to survive unless it occurred in a morphologically complex and petrified expression such as *šiētt≈a*. Why the same did not occur with the demonstrative adverb of relative position *kētt≈a*, which was replaced by *kēzzi≈ja* is not clear to me.

Other problems that need to be solved are the readings behind the 1-*i-* and 1-*nt-* stems. It is of course possible that these stems should be read as **ši-* and **šiant-* respectively, but one has to keep in mind that there still exists *ānki* = 1-*anki* “once”. Moreover, in view of the lemma ^(LÚ)*ānt-* “equal (= same, similar), rival” it seems preferable to conclude that in Hittite the two PIE stems for “one” were present. As in Greek (οὐνὴ on dice, εἷς, μία, ἐν as the usual word for “one”³³), PIE **oi-* gained a more specialized meaning in Hittite, whereas PIE **se-* (and not **sem-?*)³⁴ became the general stem for “one”.

³³ More interesting for Hittite *šia-* from the viewpoint of comparative linguistics is Beekes' discussion (1988: 81) of the fact that the feminine of the numeral ‘1’ in Greek does not only appear as *mía*, but also as *ía*. Besides Homeric *ía* there exist an acc. *ian* in Lesb. and Thessal. and a gen. *ias* in Boeot. Based on this material Beekes concludes that the feminine of the numeral ‘1’ in PIE has to be reconstructed as **sih₂*, without *-m*.

³⁴ If Proto-Anatolian did not lose the *-m-* of **sem-*, then Brugmann 1916/1917: 160-161 might have been right in his analysis of *sem-/som-* as the demonstrative *se-/so-* + *-mo-*. In that case Proto-Anatolian must have split off from PIE before the formation of the new stem **sem-/som-*. Hahn (1942: 116) came to the same conclusion, using different arguments. One could also think of the co-existence of the descendants of two PIE roots **se-* and **sem-*. **se* would then be expressed as *šia-* “one”, whereas **sem-* “same” should appear in ¹⁾ *šani-* “the same”, ²⁾ *kiššan* “in this same way” (and not “in this one way”), and ³⁾ *šauitišt-* “in the same year”.

References

- Adiego Lajara, I.-J., 1993 – *Studia carica: investigaciones sobre la escritura y lengua carias*. Barcelona: Promociones y Publicaciones Universitarias.
- Archi, A., 1979 – ‘L’Humanité des Hittites’, in: *Florilegium Anatolicum. Mélanges offerts à Emmanuel Laroche*. Éditions E. de Boccard: Paris: 37-48.
- Beekes, R.S.P., 1988 – ‘The origin of the Indo-European pronominal inflection’. In: Mohammad Ali Jazayery & Werner Winter, *Languages and Cultures. Studies in Honor of Edgar C. Polomé*. Mouton de Gruyter: Berlin – New York – Amsterdam: 73-87.
- Boley, J., 1995 – ‘Thoughts on Language Change as Evidenced by Hittite’. In: O. Carruba, M. Giorgieri, C. Mora (eds.), *Atti del II Congresso internazionale di hittitologia*. Pavia: Gianni Iuculano: 55-62.
- Boley, J., 2000 – *Dynamics of transformation in Hittite: the Hittite particles -kan, -asta and -san*. (Innsbrucker Beiträge zur Sprachwissenschaft; Bd. 97). Innsbruck: Institut für Sprachwissenschaft der Universität Innsbruck.
- Bossert, H.Th., 1957 – ‘Die Schicksalsgöttinnen der Hethiter’, *Welt des Orients* 2/4: 349-359.
- Brugmann, K., 1916/1917 – ‘Lat. *aemulus, aequos, imitāri, imāgo*, griech. αἴψα, αἰπός, got. *ibns*’. *Indogermanische Forschungen* 37: 155-163.
- Carruba, O., 1998 – ‘Betrachtungen zu den anatolischen und indogermanischen Zahlwörtern’. In: Wolfgang Meid (ed.), *Sprache und Kultur der Indogermanen. Akten der X. Fachtagung der Indogermanischen Gesellschaft Innsbruck, 22.-28. September 1996*. Inst. für Sprachwiss.: Innsbruck: 505-519.
- Carruba, O., 1999 – ‘Die indogermanische Zahlwörter: Neue Ergebnisse und Perspektiven’. In: Edgar C. Polomé and Carol F. Justus (eds.), *Language Change and Typological Variation: In Honor of Winfred P. Lehmann on the Occasion of His 83rd Birthday*. Washington: Institute for the Study of Man Inc.: 145-171.
- Carter, C., 1962 – *Hittite Cult-Inventories*, Chicago.
- Diessel, H., 1999 – *Demonstratives. Form, Function, and Grammaticalization*. Amsterdam/Philadelphia: John Benjamins Publishing Company.
- Eichner, H., 1992 – ‘Anatolian’. In: Jadranka Gvozdanović (ed.) *Indo-European Numerals*. Trends in Linguistics. Studies and Monographs 57. Berlin, New York: Mouton de Gruyter: 29-96.
- Friedrich, J., 1950 – ‘Churritische Märchen und Sagen in hethitischer Sprache’, *Zeitschrift für Assyriologie und verwandte Gebiete* 49: 213-255.
- Friedrich, J., 1974 – *Hethitisches Elementarbuch*, 1. Teil, Kurzgefaßte Grammatik. Dritte, unveränderte Auflage. Heidelberg: Carl Winter Universitätsverlag.
- Friedrich, J., and A. Kammenhuber, 1975ff. – *Hethitisches Wörterbuch*. Heidelberg: Carl Winter Universitätsverlag.
- Goedegebuure, P.M., 2002 – ‘KBo 17.17+. Remarks on an Old Hittite Royal Substitution Ritual’. *JANER* 2: 61-75.
- Goedegebuure, P.M., 2003 – *Reference, Deixis and Focus in Hittite. The demonstratives ka- “this”, apa- “that” and asi “yon”*. (diss., Universiteit van Amsterdam), Amsterdam.
- Goedegebuure, P.M., 2004 – ‘The Hittite 3rd person/distal demonstrative *aši (uni, eni etc.)*’. *Die Sprache* 43,1 (2002/2003): 1-32.
- Goetze, A., 1928 – *Madduwattaš*. (Mitteilungen der Vorderasiatisch-ägyptischen Gesellschaft; Jg. 32 (1927), 1). Leipzig: Hinrichs.
- Goetze, A., 1933 – *Die Annalen des Muršiliš*. Darmstadt: Wissenschaftliche Buchgesellschaft (1967²).
- Goetze, A., 1935 – ‘Hittite *šanna-* “one”’. *Language* 11: 185-190.
- Goetze, A., 1949 – ‘Hittite *šani/a-*, *šannapili-*’. *Archiv Orientalní* 17/1: 288-297.
- Güterbock, H.G., H.A. Hoffner and Th.P.J. van den Hout, 1980ff. – *The Hittite dictionary of the Oriental Institute of the University of Chicago*. Chicago: The Oriental Institute of the University of Chicago.

- Hahn, E.A., 1942 – ‘The Indefinite-Relative-Interrogative Stem *sem- sm- smo-*’. *Language* 18: 83-116.
- Hawkins, J.D., 2000 – *Corpus of hieroglyphic Luwian inscriptions*. Berlin; New York: De Gruyter.
- Hoffner, H.A., 1997 – *The laws of the Hittites: a critical edition*. (Documenta et monumenta orientis antiqui, vol. 23). Brill: Leiden [etc.].
- Hoffner, H.A., 1998 – *Hittite Myths*, 2nd edition. Atlanta, GA: Scholars Press.
- Hoffner, H.A., 2004 – ‘Hittite *a-aš-ma*’. *Die Sprache* 43,1 (2002/2003): 80-87.
- Hrozný, F., 1917 – *Die Sprache der Hethiter*. Leipzig: J.C. Hinrichs'sche Buchhandlung.
- Kalaç, M., 1978 – ‘Ein Stelenbruchstück mit luwischen Hieroglyphen in Aksaray bei Niğde’, *Zeitschrift für vergleichende Sprachforschung* 92: 117-125.
- Kammenhuber, A., 1969 – ‘Hethitisch, Palaisch, Luwisch, und Hieroglyphenluwisch’. In: *Handbuch der Orientalistik* I.2.1./2.2: 119-357, 428-546.
- Kronasser, H., 1956 – *Vergleichende Laut- und Formenlehre des Hethitischen*, Heidelberg.
- Kronasser, H., 1962 – *Etymologie der hethitischen Sprache*. Wiesbaden: Otto Harrassowitz.
- Laroche, E., 1965 – ‘Textes mythologiques hittites en transcription. Première Partie: Mythologie anatolienne’. *RHA* 23 (1965): 63-178.
- Lyons, Ch., 1999 – *Definiteness*. Cambridge: Cambridge University Press.
- Marazzi, M., 1988 – ‘Note in margine all’editto reale KBo XXII 1’. In F. Imparati (ed.), *Studi di Storia e di filologia anatolica dedicati a Giovanni Pugliese Carratelli*. Firenze: Elite: 119-129.
- Melchert, H.C., 1977 – *Ablative and Instrumental in Hittite* (diss., Harvard University). Cambridge, Mass.
- Melchert, H.C., 1993 – *Cuneiform Luvian lexicon*. Chapel Hill, N.C.: [s.n.].
- Melchert, H.C., 1994 – *Anatolian Historical Phonology* (Leiden Studies in Indo-European 3). Amsterdam, Atlanta.
- Meriggi, P., 1967 – ‘Zum Karischen’. In: William C. Brice, *Europa. Studien zur Geschichte und Epigraphik der frühen Aegaeis. Festschrift für Ernst Grumach*. Berlin: Walter de Gruyter & Co: 218-228.
- Meriggi, P., 1975 – *Manuale di eteo geroglifico II/2*. Roma: Edizioni dell’Ateneo.
- Meriggi, P., 1980 – *Schizzo Grammaticale dell’anatolico*. Roma: Accademia nazionale dei Lincei.
- Neu, E., 1974 – *Der Anitta-text*, StBoT 18, Wiesbaden: Harrassowitz Verlag.
- Neu, E., 1980a – *Althethitische Rituale in Umschrift*, StBoT 25, Wiesbaden: Harrassowitz Verlag.
- Neu, E., 1980b – *Studien zum endungslosen “Lokativ” des Hethitischen* (IBS-VKS 23). Innsbruck.
- Neu, E., 1983 – *Glossar zu den althethitischen Ritualtexten*. StBoT 26, Wiesbaden: Harrassowitz Verlag.
- Neu, E., 1984 – Review of *Florilegium Anatolicum*, in: *Archiv für Orientforschung* 31: 97-100.
- Neu, E., 1996 – *Das Hurritische Epos der Freilassung I: Untersuchungen zu einem hurritisch-hethitischen Textensemble aus Hattuša*, StBoT 32, Wiesbaden: Harrassowitz Verlag.
- Neu, E., 1997 – ‘Zu einigen Pronominalformen des Hethitischen’. In: *Studies in Honor of Jaan Puhvel. Part One: Ancient Languages and Philology*. Edited by Dorothy Disterheft, Martin Huld and John Greppin. (Washington DC, Institute for the Study of Man): 139-169.
- Oettinger, N., 1995 – ‘Hethitisch *appezziia-* und Vedisch *aptyá-*’. In: Wojciech Smoczyński (ed.), *Analecta Indoeuropaea Cracoviensia, Kurylowicz memorial volume, Part One*. Cracoviae: Universitas: 181-185.
- Oettinger, N., 1999 – ‘Zum nordwest-indogermanischen Lexikon (mit einer Bemerkung zum hethitischen Genitiv auf -i)’. In: Peter Anreiter and Erzsébet Jerem (eds.), *Studia Celtica et Indogermanica: Festschrift für Wolfgang Meid zum 70. Geburtstag*, Budapest: Archaeolingua Alapítvány: 261-267.
- Otten, H., 1958 – *Hethitische Totenrituale*. Berlin [DDR]: Akademie-Verlag.
- Otten, H., 1981 – *Die Apologie Hattušiliš III. Das Bild der Überlieferung*. StBoT 24, Wiesbaden: Harrassowitz Verlag.
- Pedersen, H., 1938 – *Hittitisch und die anderen Indoeuropäischen Sprachen*. København: Levin & Munksgaard.

- Popko, M., 1994 – *Zippalanda. Ein Kultzentrum im hethitischen Kleinasien*. (Texte der Hethiter 21). Heidelberg: Universitätsverlag C. Winter.
- Puhvel, J., 1978 – ‘Remarks on ‘two’ in Hittite’. *Zeitschrift für vergleichende Sprachforschung* 92: 98-107
- Puhvel, J., 1984ff. – *Hittite Etymological Dictionary*. Berlin [etc.]: Mouton.
- Puhvel, J., 2002 – ‘Nomen proprium in Hittite’. In: Stefano de Martino and Franca Pecchioli Daddi (eds.), *ANATOLICA ANTICA. Studi in memoria di Fiorella Imparati*, LoGisma editore: 671-676.
- Rieken, E., 1999 – *Untersuchungen zur nominalen Stammbildung des Hethitischen*. StBoT 44. Wiesbaden: Harrassowitz Verlag.
- Salvini M. and I. Wegner, 1986 – *Die Rituale des AZU-Priesters, 2: Das Glossar* (Corpus der hurritischen Sprachdenkmäler; Bd. 2). Roma: Multigrafica editrice.
- Sommer, F. & A. Falkenstein, 1938 – *Die Hethitisch-akkadische Bilingue des Ḫattušili I* (ABAW, NF 16). München.
- Starke, F., 1977 – *Die Funktionen der dimensional Kasus und Adverbien im Althethitischen*, StBoT 23, Wiesbaden: Harrassowitz Verlag.
- Tjerkstra, F.A., 1999 – *Principles of the Relation between Local Adverb, Verb and Sentence Particle in Hittite*. Groningen: Styx Publications.
- Ünal, A., 1978 – *Ein Orakeltext über die Intrigen am hethitischen Hof (KUB XXII 70 = Bo 2011)*. (Texte der Hethiter 6). Heidelberg: Universitätsverlag C. Winter.
- Wegner, I., 2000 – *Einführung in die hurritische Sprache*. Wiesbaden: Harrassowitz Verlag.
- Yoshida, D., 1987 – *Die Syntax des althethitischen substantivischen Genitivs* (Texte der Hethiter 13). Heidelberg: Universitätsverlag C. Winter.