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Alan S. Kaye

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Chapter 30

Hittite Morphology

H. Craig Melchert

University of North Carolina at Chapel Hill

1. General features

Hittite is an inflecting language of the fusional type. The function of most words is marked by grammatical suffixes ("endings"). *Fusional* refers to the fact that many of these grammatical suffixes are *portmanteau* morphemes. That is, they convey multiple functions in a single indivisible unit: -s in the noun indicates animate gender, singular number, and nominative case; -*ēr* in the verb marks indicative mood, active voice, past tense, third person, and plural number.¹ Hittite also uses phrasal constructions for certain verbal categories (see 3.1.4 below). The grammatical endings are attached to stems, which consist in turn of *roots* (lexical morphemes for nouns, adjectives, adverbs, verbs) followed by one or more derivational suffixes. As described briefly below, Hittite has a fairly well developed system of derivational morphology, with the expected mixture of productive and non-productive suffixes. There is a single infix, and only a handful of prefixes, none of them productive.

The focus of the following description is synchronic, with only passing references to prehistoric developments that have left visible traces.² However, Hittite undergoes changes during the four centuries for which we have documentation, somewhat more significant in the nominal system than in the verb. We can now distinguish between Old Hittite (ca. 1570–1450 B.C.E), Middle Hittite (1450–1380), and Neo-Hittite (1380–1220). The following description is meant to be valid for the language as a whole except where differences between Old and later Hittite are explicitly noted.

2. The nominal system

Nouns, adjectives, and pronouns inflect for gender, number, and case. Pronouns stand apart in both their stem formation and their inflection and call for separate treatment.

1. For the sake of simplicity I transcribe Hittite here with ordinary *s* and *h*. Readers should remember, however, that *sh* represents a sequence of two sounds, not the single sound of English *sh*. I also use *ts* for Hittite *z* and have silently "normalized" other spellings, in order to avoid confusing the general reader with minor variations that have no linguistic significance.

2. For a brief recent sketch of Hittite grammar from a historical point of view, see Melchert 1994a. Kronasser (1956) offers a much more detailed account, now dated but still useful.

2.1. Inflection of nouns and adjectives

Nouns and adjectives inflect essentially alike, with the obvious difference that only adjectives inflect for more than one gender. One minor difference will be noted below. Hittite has two genders: animate (common) and inanimate (neuter). The inflection of the two genders differs only in the nominative and accusative. Alleged examples of "alternating gender" do not exist! Some reflect misinterpretation of Hittite spelling conventions, others involve the distinction of count versus collective plural, and a few represent sporadic use of the animate gender instead of the ergative.

Hittite has two numbers, singular and plural. If Hittite inherited any examples of a dual number, these have been reinterpreted synchronically as collective plurals (see Rieken 1994: 52–53). As intimated above, there is in Old Hittite a contrast between a count plural and a collective plural: e.g., *alpa-* 'cloud' (animate) shows nom. pl. *alpēs* and acc. pl. *alpus* 'clouds' beside nom.-acc. pl. *alpa* 'cloudbank, mass of clouds'. This contrast has long been recognized for animate nouns (see Eichner 1985 with references to previous scholars), but its status as a productive, living distinction in Old Hittite has not been fully appreciated. The same phenomenon in neuter nouns has also been misconstrued: the plural of *luttāi-* 'window' (neuter) is usually nom. pl. *luttaēs*, acc. pl. *luttaus*. This is *not* gender alternation, but simply reflects the fact that windows, as discrete units, usually call for a count plural, not a collective.³

It remains true that the functionally unmarked plural for animate nouns is the count plural *-ēs/-us*, while that for neuters is the collective (zero or *-a*). There is predictably some reluctance to use the animate endings *-ēs/-us* with neuter nouns, and Hittite develops an alternative. When it is necessary to count neuter nouns, whose own plural is properly a collective, Hittite uses an *individualizing* suffix *-ant-* on the numeral, which then agrees with the collective plural noun: 9-*antas happessnas sēr* 'on the nine members (of the body)'.⁴ I know of no assured examples of collective plurals to animate nouns in Neo-Hittite, and it is likely that the entire contrast just described had been lost or become moribund in the later language.

The case system of Old Hittite is given in the table on p. 757. The vocative is distinct from the nominative only in the singular; the nominative is used for direct address in the plural. The dative-locative is used to indicate place to which and place where in both the singular and the plural. In the singular there is also an allative used exclusively for place to which. The ablative and instrumental are indifferent to number. Beside the distinctive genitive plural ending *-an* we also find *-as* in this function. This probably represents a secondary use of the dative plural, but a generalization of the

3. Since the contrast is marked once again only for the nominative and accusative, I prefer to treat the distributive and collective as two subcategories of the plural, rather than with Eichner (1985) as a third category distinct from singular and plural.

4. Cf. English 'twenty head of cattle'. The force of *-ant-* with numerals as '(individual) unit' is recognized by Eichner (1992: 36), but he does not make clear its systematic use. This usage is again much more widespread in Hittite than has been recognized, because it is usually hidden by Akkadographic spellings, for which see Neu (1992), who does not make the equation with Hittite numeral+*ant-*.

	Singular	Plural
Nominative Animate	-s	-ēs
Accusative Animate	-n/-an	-us
Vocative	-Ø/-i	(-ēs)
Nom.-Acc. Neuter	-Ø/-n	-Ø/-a/-i
Ergative	-ants	-antēs
Genitive	-as	-an/-as
Dative-Locative	-i	-as
Allative	-a	(-as)
Ablative	-ats/-ts	
Instrumental	-it/-t	

genitive singular is also possible. As per Garrett (1990), Hittite shows *split ergativity*: grammatically neuter nouns functioning as agents must appear in a special ergative case marked by *-ants* in the singular and *-antēs* in the plural; e.g., *parnants-at tarnāu* 'May the house let it (the evil) go!' to neuter *pēr/parn-* 'house'. There are also a handful of cases where an animate nominative is created to mark the agent instead of the ergative: e.g., *parnas* beside ergative *parnants*. Once again this is *not* a case of genuine alternating gender. Garrett shows convincingly against prior analyses that this phenomenon is fundamentally a grammatical distinction and has *nothing* to do with the Hittites' allegedly viewing inanimate objects routinely as "active forces." Unsurprisingly, however, some instances of genuine personification do occur, as shown by use as vocatives: e.g., *attas nepisants* '(oh) father heaven!' Aside from the instances just described, the usage of the cases is consistent with that implied by their labels, with the exception that by Neo-Hittite the ablative has taken over all the uses of the instrumental.

The endings given above are generally valid for all stem classes, but stems in *-a-* show some peculiar features. First of all, the *-a-* of the stem is deleted before all endings beginning with a vowel: thus *hāssa-* 'hearth' has dat.-loc. sg. *hassī*, nom. pl. *hassēs*, acc. pl. *hāssus*, etc.; *kunna-* 'right-(hand)' (adjective) has ablative *kunnats* (with short, not long *-a-*!) and instrumental *kunnit*. Second, the nom.-acc. sg. neuter ends in *-an* (*kunnan*) versus the zero ending in all other stem classes.

The animate accusative singular ending is *-n* for vocalic stems (*alpa-n* 'cloud', *halki-n* 'grain', *hassu-n* 'king') and *-an* for consonant stems (*kartimmiyatt-an* 'anger', *ispant-an* 'night'). The productive ending for the vocative singular is zero, but there is also a rare ending *-i* (*atti* 'oh father' to *atta-*) of uncertain origin. The archaic ending for the neuter (collective) nom.-acc. plural is zero (e.g., *idālu* in *idālu uttār* 'evil words'; see Watkins 1982), but already in Old Hittite the ending *-a* has spread from the *a*-stems to other classes, having been generalized in the consonant stems (*hūmant-a* 'all').⁵ There is also a competing ending *-i* for some stem classes

5. As per Watkins, the ending was prehistorically not zero in vocalic stems, but consisted in lengthening of the stem vowel. This is clearly preserved only in *āssū* 'goods, property', a lexicalization of the old collective plural of *āssu-* 'good'. There may also be a single example of the old zero ending in a consonant stem: *aniat* 'regalia' (collective plural tantum) beside usual *aniyatta/aniyatti*.

(*ishiul-i* to *ishiul-* 'obligation, treaty'), on which, see Gertz (1982), Rieken (1994: 50–52) and Oettinger (1995a). There are also a few neuter consonant stem nouns that form their nom.-acc. plural in an archaic fashion by lengthening the final vowel of the stem: e.g., *uttār* 'words, speech' to *uttar* 'word'. There are examples of the ablative and instrumental endings without a vowel: *nepis-ts* 'from heaven', *pēr-ts* 'from the house', *kissar-t* 'with the hand(s)'. These are isolated archaisms and quickly give way to the productive forms with a vowel: *nepis-ats*, *parn-ats*, *kissar-it*.⁶

Most Hittite nominal stems remain invariant before the endings just described, but some systematic stem alternation does occur. First, Hittite shows two classes of neuter *heteroclite* nouns, that is, nouns which have a different suffix in the nominative-accusative versus the remaining cases. The one type, the more famous, has an *r*-suffix in the nominative-accusative, but an *n*-suffix elsewhere: e.g., *hanness-ar* 'judgment' (nom.-acc.) with gen. sg. *hanness-n-as*, dat.-loc. sg. *hanness-n-i*, inst. *hanness-n-it*, and so forth. The second type, not sufficiently recognized, has a zero suffix in the nominative-accusative and *-n-* in the other cases: e.g., *hataalkis* 'hawthorn', with gen. sg. *hataalkis-n-as* and dat.-loc. sg. *hataalkis-n-i* (see Melchert 1994b: 151).

Several other stem classes show less dramatic regular alternations. Nouns in *-i-* and *-u-* show invariant stems: *halki-s*, *halki-n*, *halk(i)y-as*, *halk(i)y-ats*, etc. 'grain'; *hassu-s*, *hassu-n*, *hass(u)w-as*, *hass(u)w-i*, etc. 'king'. Corresponding adjectives, however, regularly show alternate stems in *-ay-* and *-aw-*, respectively, outside the nominative and accusative singular: *salli-* 'great' has *salli-s*, *salli-n*, *salli-Ø* but *sallay-as*, *sallay-ats*, *salla-ēs*, *salla-us*, *sallay-a*, etc. and likewise *āssu-* 'good' has *āssu-s*, *āssu-n*, *āssu-Ø*, but *āssaw-as*, *āssaw-i*, *āssaw-ats*, *āssaw-ēs*, *āssam-us*, *āssaw-as*. Note that in the animate nominative and accusative plural of *i*-stem adjectives the *-y-* is lost before the ending. Originally there was a general loss of intervocalic *-y-*, and we still find in Old Hittite a few examples such as genitive singular *sal-las*, with loss of the *-y-* in **sallay-as* and contraction of the stem and ending. For the most part, however, the *-y-* has been restored in all sequences of *-aya-*. In the animate accusative plural of *u*-stem adjectives a minor Hittite synchronic phonological rule dissimilates *-w-* to *-m-* next to *-u-*, producing the odd allomorph *āssam-us* for underlying */āssaw-us/*. The contrast between noun and adjective inflection in *i*- and *u*-stems is not absolute. We find a few examples of nouns with alternation (nom. pl. *wesa-ēs* to *wesi-* 'meadow'; dat.-loc. sg. *sēknaw-i* to *seknū-* 'robe'), and some *i*-stem adjectives have an invariant stem (e.g., *karuwili-* 'ancient, primeval').

Hittite also has nouns with diphthongal stems *-āy-* and *-āw-*. These have the diphthong in the nominative and accusative, singular and plural (with the same deletion of *-y-* in the plural as above), but simply *-(i)y-* and *-(u)w-* in the non-direct cases: *lingāi-s*, *lingāi-n*, *ling(i)y-as*, *ling(i)y-ats*, *linga-ēs*,

6. The ablative ending also has a rare variant *-ants* (e.g., *luttants* 'from/through the window'), on which see Jasanoff (1973). The ablative also regularly appears as *-atsi* before the enclitic conjunction *-ya* 'and, also'. This variant represents a historical survival—the final vowel of the ending having been lost word-finally—and remarkably remains a productive conditioned allomorph through Neo-Hittite.

linga-us etc. 'oath'; *harnāu-s*, *harnāu-n*, *harn(u)w-as*, *harn(u)w-i*, etc. 'birth-ing-stool'. There is a tendency for the stem with diphthong to be generalized to the entire paradigm (e.g., *lingay-as*; *harnaw-as*, *harnaw-i*).

Animate *n*-stem nouns originally lack the *-n-* in the nominative singular: *hāra-s* but *hāran-an*, *hāran-as*, *hāran-i*, etc. 'eagle'; *alkistā-s*, *alkistān-an*, *alkistān-ēs*, *alkistān-us*, etc. 'branch, limb'. In the history of Hittite, this alternation tends to be leveled in one of two directions. We find acc. sg. *hāra-n* based on *hāra-s*, or nom. sg. *alkistāna-s* after the rest of the paradigm. In each case the effect is to turn the word into an *a*-stem. The process is not always carried through, however; even in Neo-Hittite we still find *memiya-s*, *memiya-n*, but *memiyan-as*, *memiyan-i* 'word; matter'.

There are a few neuter nouns, predictably items of core vocabulary, that show irregular alternations between the stem of the nominative-accusative and that of the non-direct cases: nom.-acc. sg. *tēkan* but *takn-ās*, *takn-i*, *takn-āts*, etc. 'earth'; nom.-acc. sg. *āis* but *iss-ās*, *issi*, *iss-ās* etc. 'mouth'. The long vowels in these paradigms show that there is also alternation in the place of the accent—on the root in the nominative-accusative, but on the case endings elsewhere. For complete paradigms of these and other irregular nouns, as well as those of the other classes cited above, see Friedrich (1960: 45–60).

The case system undergoes a fairly dramatic simplification from Old to Neo-Hittite. The following table shows the synchronic system for Neo-Hittite:

	Singular	Plural
Nominative Animate	-s	-us/-ēs
Accusative Animate	-n/-an	-us/-ēs
Nom.-Acc. Neuter	-Ø/-an	-a
Ergative	-ants	-antēs
Genitive	-as	-as
Dative-Locative	-i	-as
Ablative	-ats	

The vocative is lost, and an appositional nominative is used for direct address (see Hoffner 1998: 40–42): *tsik Telipinus handahhut* 'You, Telipinu, compose yourself!' The animate nominative and accusative plural merge, with the ending *-us* being generalized in all except three cases. See Melchert (1993: 270), following the analysis of McIntyre (1986), for details. The allative and instrumental are preserved only in a few set phrases, their functions being taken over by the dative-locative and ablative, respectively. One may also note that most of the archaic variant shapes of various endings are eliminated.⁷

7. One other noteworthy development in nominal inflection in Neo-Hittite is alternation between *a*- and *i*-stem forms in a single word (e.g., nom. sg. anim. *tannatti-s* but anim. nom.-acc. pl. *tannatt-us* and nom.-acc. pl. *tannatt-a* 'empty, desolate'). This phenomenon is ultimately due to *i*-mutation, a peculiar but quite regular stem alternation in the sister language Luvian that created confusion when the Hittites took large numbers of loanwords from Luvian. For a full discussion, see Melchert (1993: 271–72) and Rieken (1994) with reference to Frank Starke.

2.2. Derivation of nouns and adjectives

Only the briefest sketch of Hittite nominal derivation can be offered here. An up-to-date comprehensive treatment is lacking, but Kronasser (1966) offers much that is still useful. There are a very few nouns whose stem consists simply of a root: *wē/itt-* 'year' (anim.), *hāss-* 'ash; lye, soap' (anim.), *gyem-* 'winter', *kēr/kard-* 'heart' (neut.). Hittite has several productive suffixes that form action nouns from verbs: animate nouns in *-a-* (*harg-a-* 'destruction' < *harg-* 'perish', *karss-a-* 'cutting, shearing' < *karss-* 'cut, shear'); animate nouns in *-āy-* (*ling-āi-* 'oath' < *ling-* 'swear', *wast-āi-* 'sin' < *wast(a)-* 'sin'); neuter nouns in *-ul-* (*ishi-ul* 'obligation, treaty' < *ishi-* 'bind', *wast-ul-* 'sin' < *wast(a)-* 'sin'); and above all neuters in *-war* (gen. sg. *-was* < **-wan-s*), which forms the verbal noun (gerund) to almost any verbal stem (see 3.2). The heteroclite suffix *-ātar/ -ann-* (see 2.1 above) forms abstracts from both verbs and adjectives: *akk-ātar* 'death' < *akk-* 'die'; *māyant-ātar* 'maturity' < *māyant-* 'mature, adult'. The suffix *-essar/ -essn-* derives abstracts and concrete nouns from verbs (*hann-essar* 'judgment' < *hanna-* 'judge; litigate', *hatt-essar* 'hole, trench' < *hatta-* 'cut') and collectives from nouns (*lala(k)wessar* 'ant colony' < *lala(k)wesa-* 'ant' by haplology from **lala(k)wes-essar*).

Any Hittite verb may form a participle in *-ant-* (see 3.2), which usually has a passive meaning with a transitive verb: *walh-ant-* 'struck' < *walh-* 'strike'. The same suffix forms possessive adjectives from nouns: *perun-ant-* 'rocky' < *perur/perun-* 'rock' (cf. English 'beard-ed' beside 'want-ed'). Another large set of possessive adjectives is formed from nouns with a suffix *-want-*: *sakn-(u)want-* 'oily' < *sak(a)n-* 'oil'. This suffix also comes to form adjectives from verbs expressing a state: *kartimmiya-want-* 'angry' < *kartimmiya-* 'be angry'.

The suffix *-ala-* originally derived adjectives from nouns with the meaning 'pertaining to': *lissi(y)-ala-* 'hepatic' < *lissi-* 'liver'. The suffix became productive, however, in forming "agent" nouns directly from nouns: *arkammi(y)-ala-* 'a.-player' < *arkammi-* (a musical instrument), *auri(y)-ala-* 'watchman, guard' < *auri-* 'watch-tower'. In later Hittite this native suffix was largely ousted by *-attalla-*, as in *auri(y)-attalla-* 'watchman'. See Oettinger (1986: 43–47) on the creation of this Hittite suffix from Luvian *-alla/i-*.

2.3. Compounds

See on compounds in general Kammenhuber (1961) with references to Laroche for names. The only productive process in the ordinary lexicon consists of nominalization of combinations of preverb plus verb: *and(a)-yant-* 'in-gone' (i.e., 'husband who enters the household of his wife's family'). We do find isolated examples of nearly every type of compound: *āssu-terri-* 'good-cup' (a particular kind) [adj. + noun]; *tāru-maki-* 'tree/wood-bite' > 'woodpecker' [noun obj. + verbal noun]; *aska-sepa-* 'gate-spirit' (i.e., the divinized gate) [noun + noun]; *pattar-palhi-* 'wing-broad' (i.e., 'broad of wing', a kind of bird); *tars-mēni-* 'dry the face!' > '(north)east-wind' (impv. verb + noun obj.).⁸

8. See for the last type Oettinger 1995b: 46.

2.4. Pronouns

2.4.1. Demonstrative, anaphoric, relative, and interrogative pronouns

The demonstrative, anaphoric, relative, and interrogative pronouns inflect for gender, number, and case, but they have several peculiar features versus nouns and adjectives in terms of both stem formation and case endings. The demonstrative stem *apā-* 'that' marks far deixis. It also serves as the accented anaphoric pronoun 'he, she, it, they' and in discourse refers back to 'the aforementioned'. Its inflection is as follows: nom. sg. anim. *apās*, acc. sg. anim. *apūn*, nom.-acc. sg. neut. *apāt*, gen. sg. *apēl*, dat.-loc. sg. *apēd(an)i*, abl. *apēts*, inst. *apēdant* (Old Hittite only)/*apēt*, nom. pl. anim. *apē*, acc. pl. anim. *apūs*, nom.-acc. pl. neut. *apē*, gen. pl. *apēntsan* (Old Hittite only), dat.-loc. pl. *apēdas*. The stem *kā-* 'this' marks near deixis and in discourse refers forward to 'the following'. Its inflection is identical to that of *apā-* except that the nom.-acc. sg. neuter is *kī*. As in the noun, in Neo-Hittite the animate nominative and accusative plural merge, *apūs* and *kūs* being used for both. Unsurprisingly, the number 'one' and several other quantifiers take the pronominal inflection. The word *damāi-* 'other' inflects as an *āi*-stem in the nominative and accusative, but like the demonstratives in the other cases (*damāi-s*, *damāi-n*, *damāi*, but gen. sg. *damēl*, etc.). Hittite has no definite or indefinite article.

The relative-interrogative stem *kwi-* 'who, which' has the same endings as the demonstratives, but shows a consistent *i*-stem in the nominative and accusative: singular *kwi-s*, *kwi-n*, *kwi-t*, *kwēl*, *kwēdani*, etc.; plural *kuy-ēs*, *kuy-us*, *kwē*, *kwēdas*. An indefinite pronoun and adjective 'some/anyone, some/anything' is formed by adding a particle *-kki/-kka* to the inflected interrogative stem: *kwiskki*, *kwinkki*, *kwitkki*, *kwēlkka*, *kwēdanikki*, etc. There are no special forms for 'no, none'. These are expressed by placing the sentence negation *natta* immediately in front of either the indefinite pronoun or simply the interrogative itself: *natta kuitkki/kuit* 'nothing'. 'Each, every' is represented by a word which consists etymologically of the inflected interrogative stem plus an enclitic conjunction *-a/-ya* 'and' (where a final consonant is geminated before the *-a*): *kwissa*, *kwinna*, *kuitta*, *kwēlla*, *kwēdaniya*, and so forth (cf. the formation of Latin *quis-que*).

As indicated above, the demonstrative *apā-* also serves as 'he, she, it, they', but it does so only for purposes of emphasis. Anaphoric pronouns in Hittite are usually enclitic to the first accented word in the clause, according to so-called Wackernagel's Law: e.g., *n-an walhmi* 'conjunction-him I hit' = '(and then) I hit him' or *hassus-an walhtsi* 'king-him hits' = 'the king hits him'. As per Garrett (1996), unaccusative, but not unergative, verbs require subject enclitic pronouns: e.g., *n-as paitsi* 'conjunction-he goes' = '(and then) he goes'. These enclitic anaphoric pronouns resemble the demonstratives in the nominative-accusative, but have quite different forms for the non-direct cases: nom. sg. anim. *-as*, acc. sg. anim. *-an*, nom.-acc. sg. neut. *-at*, but dat. sg. *-ssi* (OH also *-sse*); nom. pl. anim. *-e*, acc. pl. anim. *-us*, nom.-acc. pl. neut. *-e*, but dat. pl. *-smas*. In Neo-Hittite the form *-at* also comes to be used for nom.-acc. pl. neuter (and for nom. pl. animate!),

while anim. acc. plural *-us* is replaced by *-as*. There are no enclitic forms for ablative, instrumental, or genitive (for the expression of possession, see 2.4.3 below).

2.4.2. *Personal pronouns*

There are, properly speaking, no personal pronouns for the third person, these being supplied by the demonstrative *apā-* or the enclitic *-as*, etc., as described above. For first and second person there are both accented and enclitic forms. The former are used for emphasis. Since the subject of a clause is always marked by the ending on the verb (see 3.1), it need be indicated by a pronoun only for emphasis—hence there are no *subject* enclitic forms of the personal pronouns.

The accented personal pronouns are characterized by a very limited inflection and (in three cases out of four) by suppletive stems for the subject and non-subject forms: *ūk* ‘I’, *ammuk* ‘me’ (dative and accusative), *ammēl* ‘my, mine’, *ammēdats* ‘by me, on my side’; *tsīk* ‘you’ (sg.), *tuk* ‘you’ (dat. and acc.), *twēl* ‘your, yours’, *twēdats* ‘by you, on your side’; *wēs* ‘we’, *antsās* ‘us’ (dat. and acc.), *antsēl* ‘our, ours’, *antsēdats* ‘by us, on our side’; *sumēs* ‘you’ (pl.), *sumās* ‘you’ (dat. and acc.), *sumēl* ‘your, yours’ (also *sumēntsan* in Old Hittite), *sumēdats* ‘by you, on your side’. In Neo-Hittite the dative-accusative is generalized for use as the subject in the first singular and plural (*ammuk* ‘I, me’, *antsās* ‘we, us’), while the second plural shows both *sumēs* and *sumās* functioning as both subject and non-subject. As noted, except in cases of emphasis, non-subject forms of the personal pronouns are represented by enclitics, which like their accented counterparts show a single form for dative and accusative: *-mu* ‘me’, *-tta* ‘you’ (sg.), *-nnas* ‘us’, *-smas* ‘you’ (pl.). Their syntax is the same as that of the third-person anaphora: *apās-mu memāi* ‘he-me speaks’ = ‘he speaks to me’.

2.4.3. *Possession*

Possession by a noun is indicated in the expected way by preposing the noun in the genitive before its possessed noun: *parnas luttāi* ‘of house window(s)’ = ‘the window(s) of the house’. As shown by Garrett (1998), inalienable possession in Old Hittite requires use of the noun in the genitive *plus* an enclitic possessive adjective that agrees with the possessed noun: *hassuwas gēnu-sset* ‘of king knee-his’ = ‘the king’s knee’.

Pronominal possession in Old Hittite is expressed by the same enclitic adjective, for which there is a stem for each person and number: *-mi-* ‘my’, *-tti-* ‘your’ (sg.), *-ssi-* ‘his, her, its’, *-summi-* ‘our’, *-smi-* ‘your’ (pl.), *-smi-* ‘their’. The inflection of these possessive adjectives is a complex mixture of *a*-stem and *i*-stem forms, with some characteristically pronominal endings (see Friedrich 1960: 65). The inflection is defective, with the instrumental being used for the ablative (*issats-smit* ‘from their mouth[s]’) and the neuter nom.-acc. singular for the plural (*sākuwa-smet* ‘their eyes’). Naturally, one may also use for emphasis the genitive of the accented personal pronoun or demonstrative: *ammēl/apēl pēr* ‘my/her house’. In Neo-Hittite the enclitic possessive adjectives are lost, except in a few set phrases. Possession can still be expressed by use of the genitive of the accented personal

pronouns or demonstratives, but more commonly one employs the enclitic *dative* of the personal or anaphoric pronouns: e.g., *apās-mu kissrus ishāi* 'he-me hands binds' = 'he binds my hands'.

2.4.4. Reflexive and reciprocal pronouns

Hittite has a reflexive particle *-ts* that serves for all persons and numbers. It occurs as an enclitic to the first word in the clause, following an enclitic anaphoric pronoun if one co-occurs: *hassus-ts ārri* 'king-refl. washes' = 'the king washes himself/bathes' (vs. *hassus sinan ārri* 'king figurine washes' = 'the king washes the figurine'); *n-us-ts dāhhi* 'conjunction-them (anim.)-refl. I take' = 'I take them for myself'. In Middle and Neo-Hittite one also finds the respective enclitic personal pronouns for the *plural* used reflexively in competition with *-ts*: *nu-nnas hassātar yawen* 'conj.-us progeny we made' = 'we made progeny for ourselves'.

Hittite can express reciprocal action by use of the mediopassive alone (see 3.1.2): *kissrats-at appantat* 'by hand-they they took (med.-pass.)' = 'they took each other by the hand'. One also finds the mediopassive *plus* the reflexive particle *-ts* (or personal pronoun in the plural): *nu-smas kissrats appantat* 'conjunction-them (dat.) by hand they took' also = 'they took each other by the hand' (see Neu 1968: 109).

3. The verb

Hittite is famous for having a relatively simple verbal system in comparison with other ancient Indo-European languages such as Sanskrit or Ancient Greek. While this characterization is in some sense correct, it is important to realize that Hittite has developed various means to fill the role of the "missing" categories. There are two moods, indicative and imperative; two voices, active and mediopassive; two tenses, present and preterite; the usual three persons, first, second, and third; and two numbers, singular and plural. Non-finite forms of the verb consist of a verbal noun, an infinitive, a single participle, and a so-called "supine" (see further 3.2).

3.1. Inflection of the finite verb

3.1.1. Indicative active

There are two major inflectional classes, conventionally labeled by their respective present active indicative first-person singular endings as the *mi-conjugation* and *hi-conjugation*. Whatever functional difference there may once have been between these, they are synchronically equivalent, with any given verb inflecting according to one pattern or the other. There is considerable mutual influence between the two classes within the historical period, and some verbs shift from one conjugation to the other (see for details Oettinger 1979). The two conjugations differ only in the active singular; their plural forms are identical. For the sake of brevity I therefore give a single set of endings, with the alternative *mi-* and *hi-* endings in the singular, always in that order (see table on p. 764).

Indicative active verbal endings

	Present		Preterite	
	Singular	Plural	Singular	Plural
1st	-mi/-hhi	-weni ^a	-(n)un/-hhun	-wen
2nd	-si/-tti	-tteni	-s~-t~-tta/-tta	-tten
3rd	-tsi/-i	-antsi	-tt(a)/-s(ta)	-ēr

a. The same synchronic phonological rule that produces *āssam-us* from */ās-aw-us/* (see 2.1) also yields the first plural endings *-meni* and *-men* with stems ending in *-u-*: e.g., *warnu-meni/warnu-men* 'we burn/burned'. Likewise verbal noun *warnu-mar*.

The present endings call for no further comment, except that due to vowel contractions many third singulars of *hi*-verbs come to end in *-āi* (e.g., *pāi* 'gives'). This ending tends to be generalized to all *hi*-verbs: e.g., Old Hittite *māldi* 'vows' but later *maldāi*. In the preterite first singular, *mi*-verbs with stems ending in a consonant take *-un*, those in a vowel *-nun*: *ēpp-un* 'I took' but *piya-nun* 'I sent'. Vocalic stems in the *mi*-conjugation originally had a preterite second singular in *-s* (*sallanu-s* 'you made great') and third singular in *-t* (*sallanu-t* 'he made great'), but the ending *-t* quickly spread to the second singular as well (*sallanu-t* 'you made great'). Stems in a consonant take *-tta* for both second and third person (*ēpptta* 'you/he/she took'). The original third person singular preterite ending of *hi*-verbs is surely *-s*, which in some cases is replaced in the historical period by *-sta*: Old Hittite *pais* 'he/she gave', but later *pesta*. The situation for the preterite second singular is complex and not fully recoverable, due to a dearth of evidence for Old Hittite. For most *hi*-verbs the ending is just *-tta*: *dātta* 'you took' versus *dās* 'he/she took'. In verbs with a stem in *-(a)i-* the ending may have always been *-sta* (*pesta* 'you gave'), but this is not assured, and this ending may be an innovation since it appears in the third person.

Many verbs in both conjugations attach the respective endings to an invariant stem, but there are also a significant number of types that show an alternation between a "strong" and "weak" stem. The former appears in the present and preterite singular, preterite third plural and often in the present and preterite second plural. I cite here only some of the most important examples. For a full description, see the magisterial work of Oettinger 1979, updated in Oettinger 1992. An important set of *mi*-verbs has a strong stem with *e*-vocalism of the root and weak stem with *a*: e.g., *ēppmi*, *ēppsi*, *ēpptsi*, *appweni*, *ēpptteni*, *appantsi* to *ēpp-* 'hold; take'. A smaller set contrasts *-e-* in the strong stem with zero in the weak: *kwērmī*, [kwērsi], *kwērtsi*, but *kurantsi* to *kwēr-* 'cut'. In the small set of verbs with a nasal infix in roots ending in a velar stop the distribution appears to be *-ni-k/g-* before consonantal endings, but *-nin-k/g-* before vocalic endings: *harnigmi*, *harnigsi*, *harnigtsi*, *harningweni*, *harnigtteni*, *harningantsi*, *harningun*, *harnigtta*, *harnigtta*, *harningēr* to *har-ni(n)-g-* 'destroy'.

Two very productive classes of *mi*-verbs are those with stems in *-ye/a-* and *-ske/a-* (on the function of the latter, see further below). In Old Hittite these stems tend to show forms with *-e-* in the singular and *-a-* elsewhere, but one also finds *-e-* in the present third plural and already *-a-* occasionally

in the singular (especially the first person). In Neo-Hittite the forms in *-e-* are gradually eliminated in favor of *-a-* everywhere: e.g., *tiye/a-* 'step' has *tiyami*, *tiyasi*, *tiyetsi/tyatsi*, *tiyaweni*, *tiyatteni*, *tiyentsi/tyantsi*, *tiyanun*, *tiyat*, *tiyet/tyat*, *tiyawen*, *tiyatten*, *tiyēr*; *piske-* 'give' (imperfective) shows *piskemi*, *piskesi*, *pisketsi*, *piskaweni*, *piskatteni*, *piskantsi*, *piskenun*, *pisket*, *pisket*, *piskawen*, *piskatten*, *piskēr*. Prehistoric loss of intervocalic **y* and resulting contractions have led to an alternation *-āi-/ā-* in a productive class of denominative verbs. The most common pattern is *-āi-* in the second and third person, *-ā-* elsewhere: *handāmi*, *handāisi*, *handāitsi*, *handāweni*, *handāddeni*, *handāntsi*, *handānun*, *handāit*, *handāit*, *handāwen*, *handādden*, *handāir* to *handāi-* 'determine, arrange'.

A small set of *hi-*verbs shows an alternation between strong stem with *a*-vocalism and weak stem with *-e-* (versus that cited above for *mi-*verbs): e.g., *sakkhhi*, *sakkti*, *sakki*, *sekkweni*, *sakktteni*, *sekkantsi* 'know'. A very important class of *hi-*verbs is those with a stem ending in *-i/y-*. A basic alternation between strong stem in *-ay-* and weak stem in *-i/-y-* develops into a three-way pattern with *-e-*, *-ay-*, and *-i/-y-*, due to contraction of the diphthong *-ay-* to *-e-* before certain consonants. The paradigm is further complicated by frequent insertion of an *-s-* before endings beginning with a *-t-* and contraction of underlying */-ay-i/* in the present third singular to *-āy*: e.g., *pehhi*, *pesti*, *pāi*, *piweni*, *pesteni*, *pyantsi*, *pehhun*, *pesta*, *pais* (later *pesta*), *piwen*, *pesten*, *pyēr* 'give'. There is also a strong tendency in the historical period to spread the long diphthong of the present third singular to other persons: e.g., pres. 2nd sg. *pāisti/pāitti* 'you give', *dāitti* 'you put', pret. 2nd pl. *dāisten/dāitten* 'you put'. Finally, since the present third singular of *hi-*verbs in *-a-* also ends in *-āi* (e.g., *tarnāi* to *tarna-* 'let go'), *hi-*verbs in *-i-* with polysyllabic stems also tend by analogy to become inflected as *a*-stems in later Hittite: e.g., *memi-/mema-* 'speak' (pres. 3rd sg. *memāi*) has older pres. 1st pl. *memiweni* but later *memaweni*, older pres. 3rd pl. *memyantsi* but later *memantsi*, and so forth.

A final peculiarity of *hi-*verb inflection worthy of mention is that, due to complex prehistoric developments, many *hi-*verbs with a stem in *-a-* have irregular first plurals and verbal nouns with a sequence *-um-*: e.g., *tarna-* 'let go' has pres. 1st pl. *tarnumeni*, pret. 1st pl. *tarnumen*, verbal noun *tarnumar* (see n. 9 below).

3.1.2. Indicative mediopassive

Indicative mediopassive endings

	Present		Preterite	
	Singular	Plural	Singular	Plural
1st	-hha(ha)(ri)	-wasta(ti)	-hha(ha)t(i)	-wastat(i)
2nd	-tta(ri/ti)	-ttuma(ri)	-ttat(i)	-ttumat(i)
3rd	-tta(ri)~-a(ri)	-anta(ri)	-ttat(i)~-at(i)	-antat(i)

Yoshida (1990) has shown that the choice between the third singular endings with or without *-t-* for a given verb has nothing to do with the

contrast in the active between the *mi*- and *hi*-conjugations. The source of this alternation is much disputed, but it carries no synchronic functional distinction. The partially iterated forms of the first person singular are equivalent to the non-iterated forms. In Old Hittite the present endings are for the most part those without the final particles *-ri* and *-ti*, with exceptions such as *esari* 'sits down', *arttari* 'stands' (nearly all present third singulars). As demonstrated in detail by Yoshida (1990), starting from these few examples the ending *-ri* was spread first to other third person singulars and then to other persons within the history of Hittite, so that by Neo-Hittite those with *-ri* are regular. All other mediopassive endings were originally formed by adding a particle *-ti*, which etymologically is a variant of the reflexive particle *-ts* (as per Neu 1968: 143–48, contra all others). In Old Hittite the endings are those with final *-ti*. Because in the active voice a final *-i* is associated with the present tense, the final *-i* came to be suppressed in the preterite mediopassive, resulting in Neo-Hittite preterite endings in *-at*. On the uses of the mediopassive in opposition to the active, see Neu (1968: 54–67). There are also intransitive verbs that inflect only in the mediopassive (e.g., *ar*- 'stand', *ye/a*- 'walk'), and a few "deponents" that inflect as mediopassives but have transitive meaning (*hatta*- 'cut, slaughter'). There is a tendency for the latter to become active *hi*-verbs in Neo-Hittite.

3.1.3. Imperative mood

Imperative endings

	Active		Middle	
	Singular	Plural	Singular	Plural
1st	-allu	-weni	-hha(ha)ru	-wastati
2nd	-Ø~-t~-i	-tten	-(s)hut	-ttumat(i)
3rd	-ttu/-u	-antu	-ttaru~-aru	-antaru

The first person forms, conventionally listed as above, are actually voluntatives. The first plurals are identical with those of the indicative and can be distinguished only by context: *paiweni* 'let's go' or 'we go', *es(u)-wastati* 'let's sit down' or 'we sit down'. The first singular forms express a wish. In verbs that show a stem alternation, the ending *-allu* is consistently added to the weak stem: e.g., *as-allu* 'may I be', *sekk-allu* 'may I know'. The verb 'be' also has the irregular variants *ēslit* and *ēslut*.

The second singular imperative active for most verbs consists of the bare stem, with zero ending: *ēs* 'be!', *dā* 'take!', and so forth. Verbs in *-nu* take an ending *-t* (*warnu-t* 'burn!'), and the verb *pai*- 'go' has an irregular impv. 2nd singular *i-t* with the same ending. A few verbs have an ending *-i* of unclear origin (*tarni* 'let go!' beside regular *tarna*). The second singular imperative middle ending is *-hut* (*yē-hut* 'walk!', *ēs-hut* 'sit down!'), with the verb *nai*- 'turn' showing a variant *-shut* (*ne-shut* 'turn [yourself]!'). The second person plurals are identical with the preterite indicative and once again can only be distinguished from these by context (an exception is *i-t(t)en* 'go!'). As is obvious, the third person forms, properly jussives, differ

from the corresponding indicatives in showing a final *-u* instead of *-i*: e.g., *ēsttu* 'let be!', *dāu* 'let take!', *kīsarū* 'let become!'

3.1.4. Aspectual and quasi-aspectual distinctions

The finite forms of basic Hittite verbal stems are unmarked for aspect or time relative to another event, and they may express various meanings according to context. Thus a sentence such as *nu hassus happiriya ārs* with a preterite verb may mean 'the king arrived/was arriving/has arrived/had arrived in the city'. Likewise a present tense verb *paitsi* may be taken as 'goes (habitual or general fact)/is going/will go/shall go (prescriptive)'.

However, Hittite has several optional means of explicitly indicating various aspectual and temporal nuances. First of all, virtually any verb may form a derived stem with the *mī*-conjugation suffix *-ske/a-* (or one of its suppletive allomorphs *-anni/a-* or *-issa-*, both of which inflect as *hi*-verbs). This stem marks the verbal action expressly as imperfective. The particular realization of imperfectivity as progressive, iterative, durative, distributive, or inceptive depends on the lexical meaning of the verb and the context: *nu anniskemi kwin n-an lāman haltsihhi* 'the one whom I am treating, him I call (by) name' (progressive; see Bechtel 1936: 52–57); *ta sa-hessar walhiskettu* 'let it (a battering ram) repeatedly strike the fortification' (iterative); *nu pēri-ssi annisketsi kwitman-as latsyatta* 'he shall keep working in his (the victim's) house, until he (the victim) recovers' (durative); *har-saus kuyus parsiyannyantsi nu-kan anāhi daskantsi* 'the leavened loaves that they break in two, they take a taste thereof' (distributive; i.e., an action performed once on multiple objects; see Dressler 1968: 172–82, 213–14); *nu sarkuwants sesket* 'he went to sleep with his shoes on' (inceptive; *ses*-alone means 'sleep, be asleep'). The inceptive force is also seen in the periphrastic construction of the so-called supine in *-wan* plus a finite form of *dāi-* 'put' or *tiye-* 'step': e.g., *memiskewan dais* 'he/she began to speak'. Apart from a handful of exceptions, the supine is formed only from the marked imperfective stem in *-ske/a-* or *-anni/a-*. For further examples and arguments against the common view that *-ske/a-* indicates only iterative-durative, see Melchert (1998).

Part of the meaning of an English perfect such as 'he has arrived' is so-called present relevance: the force of the act of arrival continues to the time of the speech event. As shown by Hoffner (1968: 532), Hittite has grammaticalized the use of the deictic adverb *kāsa* 'see here, *voici*' to explicitly convey this nuance: *kāsa-smas idālu dāhhun* 'I have (just) taken the evil from you (pl.)'.

Hittite also famously develops a phrasal perfect consisting of the participle and a finite form of *hark-* 'hold, have' or *ēs-* 'be'. As described in Boley 1984 and 1992, this construction originally expresses a state: e.g., *nu-nnas istamanan lagān hark* 'hold your ear inclined to us!' However, perhaps beginning already in Old Hittite, it comes to have the value of a true perfect: *nu aruwān harkantsi* 'they have bowed'; *udniyants karū hargants ēstta* 'the population had already perished'. Confirmation that the meaning is truly that of a perfect ('has __ed') has been furnished by Garrett (1996:

102–6), who shows that the choice of auxiliary ‘have’ or ‘be’ correlates with the pattern of modern European languages.

Finally, Hittite also has a serial verb construction consisting of a finite form of the verb *uwa-* ‘come’ or *pai-* ‘go’ plus another lexical verb in the same clause: *āppa-ma wēt Ammunas akkis* ‘afterward-but came A. died’ = ‘but afterwards Ammuna proceeded to die’. It has not been easy to determine from written texts the precise meaning of this combination, which uncannily resembles that of colloquial English in examples like ‘my dog went and died on me’. It does seem clear at least that the serial construction underscores accomplishment of an action, perhaps with a further asseverative nuance (the speaker is insisting that the action did or will take place, even against expectation). English ‘proceed to ___’ seems a close approximation. One may note that accomplishment of an action is incompatible with a progressive, and Neu (1995), following Dunkel (1985: 63), has argued that the serial construction in the present tense always has the force of a future, never a true present (ongoing action). As he suggests, *uwa-/pai-* plus finite verb may even have been grammaticalized in this function, providing an unambiguous means of marking future tense.⁹

3.2. Non-finite forms of the verb

Hittite has a single participle in *-ant-*, which in verbs that show a stem alternation is always added to the weak stem: e.g., *as-ant-* ‘being’, *sas-ant-* ‘sleeping, asleep’, *app-ant-* ‘taken’, *kun-ant-* ‘killed’. As these examples show, the participle normally has a past passive meaning with transitive verbs, but expresses an attained state with intransitives (there are rare exceptions, such as *sekk-ant-* ‘knowing’).

There are two ways to form the infinitive, which can have either an active or passive value according to context. Roughly speaking, verbs with vowel alternation in the stem form an infinitive in *-anna* (*app-anna* ‘to take’, *kur-anna* ‘to cut’, *py-anna* ‘to give’), while all others take *-wantsi* (*walh-(u)wantsi* ‘to strike’, *piya-wantsi* ‘to send’, *sipand-(u)wantsi* ‘to libate; consecrate’). There are exceptions, however (*dāanna* to *dā-* ‘take’), and there is a tendency for *-wantsi* to spread at the expense of *-anna* (also *pya-wantsi* ‘to give’). The suffix *-anna* is historically the allative of the verbal abstract in *-ātar*, while *-wantsi* is also some frozen case form of the verbal noun in *-war* (see 2.2 above). The paradigm of *-ātar* serves as the verbal noun for a few verbs with infinitive in *-anna*, but the productive verbal noun is that in *-war* (with genitive in *-was*). Case forms of the verbal noun other than the nominative-accusative and the genitive are very rare. On the meaning and syntax of the verbal noun, see Neu (1982). See 3.1.4 above for the use of the “supine” ending in *-wan* (originally an endingless locative of the verbal noun in *-war*).

9. The serial construction also occurs in the present tense when the latter is used to give instructions: ‘the priest proceeds to (=shall proceed to) wave the cup over the patient’.

Although it has only two moods, indicative and imperative, Hittite also has a means of expressing wishes and irreal conditions, namely the particle *mān/man*, for which see the excellent treatment by Güterbock and Hoffner (1980–89: 139–43).

3.3. Verb derivation

I may cite only the most important and productive classes here. Oettinger (1979) and (1992) offers a more complete picture. There are in both the *mi*- and *hi*-conjugations a number of verbs where the root serves as the stem: *ēs-/as-* 'be', *kwer-/kur-* 'cut', *walh-* 'strike'; *sakk-/sekk-* 'know', *sipand-* 'libate; consecrate'.

There is a small set of *mi*-verbs formed by inserting an infix *-ni(n)-* into roots ending in a velar stop. This infix makes transitives to roots with intransitive meanings: *har-ni(n)-g-* 'destroy' to *harg-* 'perish', *istar-nin-k-* 'cause to be sick' to *istark-* 'be sick'. Much more productive with the same force is the suffix *-nu-*: *harg-nu-* 'destroy' again to *harg-* 'perish', *kist-nu-* 'extinguish' to *kist-* 'become extinguished', and so on. The same suffix is also extremely productive in forming factitives from adjectives: *mlisku-nu* 'weaken' to *mlisku-* 'weak', *dass-nu-* 'strengthen' to *dass-u-* 'strong', *parku-nu-* 'cleanse' to *parkw-i-* 'clean', and many more. Note the archaic but synchronically irregular process by which the stem-final *-u-* and *-i-* of the adjective are deleted before the *-nu-* suffix.

There are two other even more productive suffixes that form factitives from adjectives (and nouns): *-ahh-* and *-āi-/ā-* (*supp(i)y-ahh-* 'purify' to *suppi-* 'pure'; *idālaw-ahh-* 'mistreat' to *idālu-/idālaw-* 'bad, evil'; *tarmā(i)-* 'fasten, nail' to *tarma-* 'nail, peg', *happesnā(i)-* 'dismember' to *happessar/happesn-* 'limb, member'). The latter is historically an extension of the former with the suffix *-ye/a-* (see below), and there are doublets: e.g., *tannattahh-/tannattā(i)-* 'make desolate' to *tannatta-* 'empty, desolate'. The likewise very productive suffix *-ess-* forms *fientives* from adjectives: *idālaw-ess-* 'become evil', *dass-ess-* 'become strong', *park(u)w-ess-* 'become clean' (note again deletion of the final *-u-* and *-i-* of the bases *dass-u-* and *parkw-i-*).

Perhaps the single most productive suffix in Hittite is *-ye/a-*. In some cases it is added directly to a root: e.g., *an-(i)ye-* 'accomplish, carry out', *wem-(i)ye-* 'find'. It also forms verbs from almost every class of noun and adjective, the meaning depending on the semantics of the base: e.g., *sēhur-(i)ye-* 'urinate' to *sēhur/ sēhun-* 'urine', *lamm-iye-* 'name, call' to *lām(a)n-* 'name', *ūrki-ye-* 'track, trail' to *ūrki-* 'track, trace'.

As already noted above in 3.1.4, the suffixes *-ske/a-*, *-anni/a-*, and *-issa-* have been incorporated into the verbal system to provide the marked imperfective stem. I do not consider these true derivational suffixes synchronically. There are a few cases where *-ske/a-* has become lexicalized to form the basic stem for some verbs: e.g., *du(s)-ske-* 'rejoice' (which may then regularly form a marked imperfective stem *duske-ske-*).

4. "Indeclinables"

Like any inflecting language, Hittite also has some parts of speech that are invariant, notably conjunctions, adverbs, and "particles." In many cases it is not useful to speak synchronically in terms of stem and endings, but some repeated patterns are discernible.

4.1. Conjunctions

These fall into three major classes. First, there is in Old Hittite a set of three monosyllabic clause-initial conjunctions *nu*, *su*, and *ta*. All three serve to connect clauses in continuous discourse, probably with a prosecutive force '(and) then'. It has thus far proven impossible to establish any consistent distinction in meaning between them, and in fact in Middle and Neo-Hittite we find only *nu*.

Second, Hittite has a few clause-initial conjunctions with more concrete meaning that link clauses paratactically: e.g., *namma* 'then, next', *nasma* 'or' (*nassu* . . . *nasma* 'either . . . or'). Finally, somewhat more numerous are various subordinating conjunctions: *takku* 'if' (Old Hittite only), *mān* 'when, whenever; as, how' (in Middle and Neo-Hittite also 'if'), *māhhan* 'as, how; when', *kwapi* 'where; when', *kwit* 'when; because; (seeing) that', *kwitman* 'while, until', and others.

There are also two enclitics usually labeled conjunctions: *-a/-ya* 'and, also' and *-a/-ma* (often translated 'but').¹⁰ The first clearly is a conjunction when it links noun phrases *hassus hassussarass-a* 'the king and queen'. When *-a/-ya* and *-a/-ma* follow the first accented word in a clause, they certainly do in some sense link the clause to what precedes, but to call them simply conjunctions is seriously misleading. Both of them are focus particles that typically call attention to the word to which they are attached (only in some cases to the entire clause). While *-a/-ya* is often wrongly translated in such cases merely as 'and', it always has the full force of 'also, even' and should be rendered as such: e.g., *hassus allapahhi hassussarass-a allappahhi sāwataras-a haltsāi* 'The king spits, and the queen also spits. The hornist shouts'. As shown in the last clause of the preceding example, the basic meaning of *-a/-ma* is to indicate a new topic ('as for the hornist, he shouts'). Pragmatically, a new topic often stands in contrast or even opposition to what precedes; hence 'while' or 'but' is often contextually justified: *mān hassus hassussarass-a tarantsi ta parna paimi takkunatta-ma tarantsi nu natta paimi* 'If the king and queen say (so), then I go home. But if they don't say (so), then I don't go'.

4.2. Adverbs

4.2.1. Manner adverbs

Hittite never developed a truly productive means of forming manner adverbs, and various other devices are used in their place. With intransitive verbs with subject focus one could simply use an adjective in the nominative agreeing with the subject: *Telipinus lelaniyants wēt* 'Telipinu came angrily' (lit., 'Telipinu, angry, came'). Also frequent is the use of the dative-locative of the appropriate abstract noun: *nu-nnas assuli neshut* 'turn to us in benevolence (*assul-i*)' = 'turn kindly to us'. Finally, the nom.-acc. singu-

10. In each case the allomorph *-a* occurs after a word ending in a consonant, while *-ya* and *-ma* follow words in a final vowel. The form *-a* meaning 'and, also' geminates a preceding consonant; *-a* 'but' does not. Beginning in Middle Hittite, *-ma* is generalized at the expense of non-geminating *-a*.

lar or plural neuter of the adjective may function as an adverb: *nu-mu kar-saya memi* 'Speak to me frankly!' (*karsaya* = nom.-acc. pl. neuter to *karsi-* 'bare, unadorned; mere; frank'). There is limited use of a suffix *-ili* (originally the nom.-acc. pl. neuter of adjectives with a suffix *-ili-*): *hāran-ili* 'in the manner of an eagle', *duddumi-li* 'silently' to *duddumi-* 'silent, dumb'. But this usage never became fully productive.

4.2.2. Temporal and local adverbs

There are naturally some temporal and local adverbs, of very diverse formation but, predictably, often related to deictic pronominal stems: *karū* 'previously, once (upon a time); already', *ānnats* 'formerly', *āppanda* 'afterwards, later, next'; *kā* 'here, hither', *apiya* 'there, thither'.

More important is a closed set of words expressing basic local relationships that function syntactically as freestanding adverbs, as postpositions, and as preverbs closely associated with verbs. In Old Hittite there is a quite regular system of contrasting pairs, one of which expresses location, the other direction (towards): e.g., *andan* 'in(side)' vs. *anda* 'into', *sēr* 'above' vs. *sarā* 'up', *kattan* 'below' vs. *katta* 'down'. For the entire system and its syntax in Old Hittite, see Starke (1977). These adverbs/preverbs remain in Neo-Hittite, but the pattern of their use undergoes significant changes, which have just begun to be elucidated (for the pair *anda/andan*, see Salisbury 1999).

In Old Hittite the locative adverbs of this group definitely also function as postpositions with the genitive: e.g., *hassās pēran* 'in front of the hearth'. With pronouns one finds both the genitive of the accented form (*ammēl āppan* 'behind me') and the enclitic possessive adjective (*pēran-mit* 'in front of me', *katti-ssi* 'with/beside him/her'). Contrary to the claim of Starke (1977: 133) and others, this in no way means that the adverbs are functioning as nouns. The use of the local adverbs as postpositions with the genitive is undoubtedly modeled on examples where the case form of a true noun comes to function as a postposition: e.g., *hassuwas tapus-ts* 'to/on the side of the king' (where *tapus-ts* is the frozen ablative of a noun *tapu(wa)s-* 'flank, rib') or *pēdi-ssi* 'in place of him/her' (originally 'in his/her place', where *pēdi* is merely the dative-locative of *pēda-* 'place'). It is virtually certain that in Neo-Hittite some of the local adverbs serve as postpositions with the dative-locative, but it is hard to prove beyond doubt that the adverb "governs" a preceding noun.

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