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GRAMMATICAL CATEGORIES IN CONTACT: GENDER ASSIGNMENT CRITERIA IN HITTITE BORROWINGS FROM THE NEIGHBOURING LANGUAGES[*]

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1 Gender in Hittite and the neighbouring languages

Unlike other ancient Indo-European languages, which show a three-gender system with masculine, feminine, and neuter gender, Hittite, as well as Luwian and other languages of the Ancient Anatolian branch, only distinguish between a common and a neuter gender, the emergence of the feminine being probably a later innovation of Indo-European, not shared by the Anatolian branch.[1] Hittite and Luwian could only derive nouns referring to females by adding a specific morpheme (Hitt. *-šara-*, Luw. *-šra/i-*),[2] but this did not have any effect on the grammatical agreement: such derivative nouns belong to the common gender.

On the other hand, Akkadian had a pervasive two-gender system, distinguishing between masculine and feminine, the latter usually marked by a suffixed *-t-*.[3] Hattian was able to form nouns with feminine referents by means of the suffix *-aḫḫ-*,[4] but the boundaries between referential gender and grammatical gender remain partly obscure. Hurrian does not seem to have had grammatical genders, although it shows rich nominal morphology, partly still unclear.

[1] Cf. e.g. Brugmann 1897, Tichy 1993, Ledo-Lemos 2003, Matasović 2004, Luraghi 2009a, 2009b, 2011. Some scholars tried to suggest that Anatolian originally inherited a three-gender system from Proto-Indo-European, merging then masculine and feminine in the common gender, but without compelling arguments (see especially Oettinger 1987 and Melchert 1994, later rejected in Melchert 2014).

[2] Cf. Hoffner/Melchert 2008: 59.

[3] Cf. Huehnergard 2005: 7f.

[4] Cf. Soysal 2004: 208.

2 Principles of gender assignment

As is well-known, gender assignment depends on two principles: (1) semantics and (2) form, the latter consisting of (2a) morphological properties (both derivational and inflectional) and (2b) phonological characteristics.[5] Languages generally use different combinations of these principles, but, as often remarked, "there is always some semantic basis to the grouping of nouns into gender classes, but languages vary in how much semantic basis there is" (Aikhenvald 2004: 1031). Such a semantic basis usually involves animacy, humanness, and sex, which may be restricted to humans and higher animate referents and may also override formal assignment.

Obviously, these principles of gender assignment also work in situations of language contact: If a language has a gender system, every new word entering that language will be allotted to a specific gender, based on semantic or formal criteria, depending on its gender assignment system.[6] However, when loanwords are involved, special assignment rules may come into play, e.g. semantic analogy, according to which loanwords take the gender of nouns of similar meaning already existing in the replica language.[7]

Other factors that are sometimes believed to determine the unexpected gender assignment of a loanword[8] could be (1) the tendency to take the unmarked gender in the replica language (i.e. the most common one), (2) the existence, in the replica language, of a noun class that is preferentially selected to receive loanwords (the so-called "automatic" assignment), and (3) the gender that the borrowed noun has in the model language.[9]

The existence of alternative rules or tendencies, which may also conflict with the formal principles of gender assignment operating in a given language, could determine a situation of instability and gender fluctuation that may require some time to stabilise.

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[5] Cf. Corbett 1991: 7f., Aikhenvald 2004: 1034f.

[6] Cf. Weinreich 1953: 45f., Corbett 1991: 70–75.

[7] See the discussion in Corbett 1991: 75–77, who, however, argues that semantic analogy is not restricted to loanwords, but may also determine secondary groupings of native nouns that come to be allotted to the same gender class because of their related meanings.

[8] Consider however the objections of Corbett 1991: 77–82.

[9] When such a strategy involves not only individual lexical items but all the noun classes of the model language (with sporadic exceptions), we speak of "Gender Copy", for which a widespread bilingualism in a situation of strong language contact – especially between languages similar gender assignment strategies – represents the *conditio sine qua non* (Stolz 2009).

3 Methodological problems

When undertaking such an analysis with regard to Hittite, a number of methodological problems must be taken into account:

1) the right identification of a word as a loanword and its correct assignment to a given model language. This point may also cover less obvious issues, which require a finer-grained analysis (e.g. we should consider the possibility that a Semitic loanword might not automatically be Akkadian, and we also should be aware that what we label as "Akkadian" represents a very complex and far from homogeneous reality, especially in Hittite Anatolia, where a number of different grapholects are attested for different types of texts);

2) our imperfect knowledge of the model languages and their gender and noun classes systems, which becomes dramatic in the case of languages such as Hurrian or, even more so, Hattian;

3) the amount and quality of occurrence of loanwords in Hittite: some loanwords are little more than hapax legomena; others, although occurring several times in the texts, are only attested in oblique cases, which are insensitive to gender distinction. In some cases, we cannot even be sure that a given loanword is really integrated into the Hittite system (i.e. it shows a Hittite ending) and is not rather a foreign word (i.e. it does not show a Hittite ending);

4) the path through which a loanword enters the replica language from the model language may not be direct but could include the presence of one or more intermediaries. While Hattian and Luwian words probably entered Hittite as result of direct contact and borrowing, loanwords from Akkadian are mostly considered to be intermediated by Hurrian; and, in turn, Hurrian words – also those ultimately derived from Sumerian or Akkadian – sometimes entered Hittite through Luwian intermediation. In addition, it should always be borne in mind that contact between languages is not necessarily unidirectional, which means that if Hittite and another language (either genealogically related or not) share a lexical item, Hittite should not be automatically regarded as the replica language.

5) finally, the diachronic dimension should be taken into account, because assignment rules may change over time, but often the chronology of loanwords in Hittite cannot be established in a clear-cut way. It should also be added that virtually all the potential model languages for borrowing processes, with the exception of Sumerian, have been in direct contact with Hittite from the earliest Old Assyrian age, and at least in the case of Hattian there is an ongoing debate as for the date of its death and extinction; a scenario that prevents us from relying on a *terminus ante* or *post quem* for any item that does not show specifically dateable morphophonemic processes.

4 Data

4.1 Luwian

Since Luwian and Hittite belong to the Anatolian branch of the Indo-European family, they show great similarities with regard to grammatical categories. In particular, Hittite and Luwian show a significant overlap of endings in the noun inflection, which often makes it problematic to distinguish between assimilated loanwords and foreign words (i.e. non-assimilated loanwords).[10] In addition, when a Luwian word does not frequently occur in Hittite texts, it is difficult to state if we are dealing with a loanword or a phenomenon of code-switching.[11] Diachronically speaking, one should also remember that a phase of transition usually applies, during which a sign can be present in the semiotic inventory of a language both as a foreign word and as an assimilated loan. The complex diachrony of the Hittite archives makes it difficult to identify these cases, but, potentially, any inconsistency in the grammatical inflection of Luwian words in the Hittite texts may be the photograph of a phase of transition and not the final stage of a borrowing process.

Furthermore, a more general problem involving genetically related languages concerns the very possibility of identifying a word as a loanword, because the similarity between two lexemes may depend on common inheritance. In this regard, the only reliable criterion is that based on phonology, which obviously presupposes the knowledge of the etymology of the word and allows us to determine whether it has the expected form based on the phonetic laws established for that language.[12] Thus, if a word occurring in Hittite texts, which appears to be traced back to a given PIE root, is phonologically aberrant with respect to Hittite phonetic laws, and represents instead the expected Luwian outcome of that PIE root, it should be regarded as a Luwian loanword. All other criteria are not equally reliable, as phonetics is the only structural layer in which change is regular: the occurrence of a word in Luwian texts cannot automatically guarantee its Luwian status, nor does its marking by the *Glossenkeil* in Hittite texts.[13] Morphological criteria may be more helpful, but caution is needed: it is clear that a word with unique Luwian ending should be regarded as a Luwian word, but, obviously, it does not mean that it is a native Luwian word. This is not a serious problem for non-derived words, because they can be treated as Luwian loanwords when occurring in Hittite texts, but the case of derived words is dif-

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[10] Cf. Melchert 2005: 446 and Cotticelli-Kurras 2012: 76.

[11] On this topic, see Haspelmath 2009: 40–42.

[12] Cf. Haspelmath 2009: 43–45.

[13] Cf. Melchert 2005.

ferent, because the Luwian status of the derived stem cannot automatically imply the Luwian status of its base (that means, for instance, that the existence of the Luwian verbal form *arkammanallawi* cannot be taken as evidence that the base stem *arkamman-* is also Luwian, as well as the derived noun stem *arkammanalla-*: without independent evidence, what can be regarded as Luwian is only the verbal stem *arkammanalla-*).

An assured case of a Luwian loanword in Hittite is *akkati-* 'hunting net', attested as a common gender noun (acc.pl. *:akkatiuš*). Its Luwian status is guaranteed by the existence of a genuine Hittite cognate *ēkt-* 'id.'.[14] Unfortunately, the word is never attested in Luwian texts and with Luwian endings, so that we cannot be sure of its gender. The same situation applies to other Luwian loanwords in Hittite, e.g. *arraḫḫaniyama-* 'meaning unknown', *:artalliyami-* 'meaning unknown', *:ḫūpala-* 'hunting net' (but the acc.sg. [*ḫ*]*uppalan* in KUB 8.1 iii 13 is very uncertain), *:karšantalli-* 'meaning unknown' (but Luwian status not assured), and *kupiyatalli-* 'conspirator': in all these cases, Hittite inflected forms show common gender, but inflected Luwian forms are lacking, although we can imagine common gender stems at least for the agentive nouns in *-alla/i-*.

When Luwian diagnostic inflected forms are attested, beside diagnostic Hittite ones, we can generally observe a correspondence in the grammatical gender, e.g. Luw. *armanna/i-* 'lunula' vs. Hitt. *armanni-* (both common gender), Luw. *ḫalḫalzāna/i-* (body part) vs. Hitt. (*:*)*ḫalḫalzana-* (both common gender), Luw. *ḫarpanalla/i-* 'rebellious; rebel' (adj. and n.) vs. Hitt. *ḫarpanalli-* (both common gender), Luw. *ḫūrtalla/i-* 'decoction vessel' (?) vs. Hitt. ᵈ*Ḫurtal(l)i-* (both common gender), Luw. *ḫutanu(i)-* 'mng. unkn.' vs. Hitt. *ḫūtanui-* (both common gender), Luw. *ḫuitar/ḫuitn-* 'wild animal' vs. Hitt. *ḫuitar/ḫuitn-* (both neuter gender, but they can be cognates), Luw. ᴳᴵˢ*ir(ḫ)wit-* 'basket' vs. Hitt. ᴳᴵˢ*ērḫui-* (both neuter gender), Luw. ᵈ*ītmari(ya)-* (cultic vessel) vs. Hitt. *ētmarī-*, ᵈ*itmari-* (both common gender), Luw. ⁽ᵀᵁᴳ⁾*lakkušanzani-* 'bedsheet' vs. Hitt. ᴳᴬᴰ*lakkušanzani-* (both common gender), Luw. *lap(a)nalla/i-* 'salt-lick guard/attendant' vs. Hitt. ᴸᵁ́*lapanalli-* (both common gender), Luw. *nakkušša/i-* 'scapegoat' vs. Hitt. *nakkušša/i-* (both common gender), Luw. *šakkantattar* 'appliqué' vs. Hitt. *šaggantattar* (both neuter gender), ᴰᵁᴳ*dalaim(m)a/i-* (a container) vs. Hitt. ᴰᵁᴳ*t/dalaim(m)i-* (both common gender), Luw. *taluppi-* 'clod (of earth)' vs. Hitt. *taluppi-* (both common gender), Luw. ᴺᴵᴺᴰᴬ*tannaš-* (a type of bread) vs. Hitt. ᴺᴵᴺᴰᴬ*dannaš-* (both neuters), Luw. *tarpalla/i-* 'ritual substitute' vs. Hitt. *tarpalli-* (both common gender), Luw. *tarpi-* 'strength; stronghold/secure room' vs. Hitt. *:tarpī-* (both common gender), Luw. *upatit-* 'landgrant' vs. Hitt. *upati-* (both neuter gender), Luw. *walipna/i-*, *ulipna/i-* 'wolf' vs. Hitt. *ulipana-* (both com-

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[14] Cf. CLL: 5.

mon gender), Luw. ^{NINDA}*walipaima/i-* (a type of bread) vs. Hitt. ^{NINDA}*walipaimi-* (both common gender).

Some cases in which gender mismatch can be observed are uncertain, e.g. Luw. *gulluš-* 'mng. unkn.' is a neuter *s*-stem (cf. nom.-acc.pl. *gulluša* in KUB 35.137 rev.$^?$ 6'), while in Hittite we find :*gullušiš*, which can be tentatively explained as a Hittite common gender nom.pl. However, Hitt. :*gullušiš* may also be based on a Luwian (substantivized) adjective *gulluši(ya)-*.[15] A strange correspondence concerns the alleged Luw. *ḫupalla/i-* 'scalp' (?), common gender, and the unexpected Hittite neuter *s*-stem *ḫupallaš-*,[16] which, according to Starke (1990: 324 fn. 1138), could depend on the faulty tradition of the texts. However, the Luwian stem only occurs in the fragmentary and quite uncertain nom.sg. *ḫu-pa-al-[l]i-⌈iš⌉*[17] in KUB 35.107+ ii 14' and in the alleged gen.adj. *ḫupallašša* (KBo 29.28+ obv. 6), so that we cannot exclude an original Luwian neuter *s*-stem, directly reflected in Hittite. Some consonantal stems undergo further manipulation when borrowed in Hittite, e.g. the alleged Luwian neuter stem *papašāl-* 'oesophagus', a hapax occurring in fragmentary context (nom.-acc.pl. [*pa*]*pašāla* […] in KBo 29.52, 3) seems to be assimilated in Hittite as a common gender noun ^{UZU}*pappaššala/i-* (acc.sg. ^{UZU}*pappaššalan*, ^{UZU}*pappaššalin*). Similarly, the Luwian neuter noun *šittar-* 'spear-(point); spindle' is assimilated as a common *a*- or *i*-stem in Hittite (*šittara-*, *šittari-*), the Luwian neuter stem *dupšāḫit-* (a ritual)[18] is assimilated as Hitt. *dupšāḫi-*, common gender, and the Luwian -*it*-stem *waškuit-* 'offense' (only occurring as nom.-acc.sg. :*wa-aš-ku-i-š*[*a*] in ABoT 1.56 iv 6) is adapted as a Hittite common *i*-stem *waškui-* (with secondary stem *wašku-*). Conversely, Luwian neuter stem *nūt-* 'assent' and Hittite common stem *nū-* may be cognates.[19]

Other cases of gender mismatch may involve originally non-Luwian words, so that the source of the Hittite form cannot be clearly identified as Luwian. For example, Hitt. *ḫatiwi-* 'inventory' (common gender) is attested beside a derivative verb *ḫatiwitā(i)-*, which would provide us with a noun base **ḫatiwit-*, seemingly a Luwian neuter stem in -*it*-: such a situation is reminiscent of that of Hurrian loanwords in Hittite, involving either a direct and a Luwian intermediated path of transmission (see below), and Hurrian origin is likely.[20] An analogous case is Hitt. *māri-*, a weapon (common gender), beside a likely Luwian neuter stem **mārit-* (cf. Hitt. abl.sg. ^{GIŠ}*mārita*[*z*] in KUB 43.56 ii 16): the etymology is unclear.

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[15] Cf. Starke 1990: 117f. and CLL: 107.

[16] Cf. HED Ḫ: 386f. for the occurrences.

[17] See however Rieken 1999: 194 fn. 905, against this reading.

[18] Hurrian origin is sometimes invoked, but without evidence (cf. Starke 1990: 175f.).

[19] See however Melchert 2005: 447.

[20] Cf. Richter 2012: 143.

4.2 Hattian

Hattian has a nominal system for each scholar who tried to describe it, at least as regards the morphological devices for assigning grammatical gender. Kammenhuber (1969) proposed a system that has no gender distinction, while different reconstructions involving the feminine suffixes *-t* and *-(a)ḫḫ* have been proposed by Klinger (1996) and Soysal (2004); Simon (2012) considers the two forms to be allomorphs. Whatever the correct solution to the problem of the multiplicity and non-systematic distribution of the feminine markers over the lexicon, the adaptation of Hattian loans in Hittite seems to follow no precise rule: Hattian inanimate nouns can take the neuter gender (*ippizinar*, *ḫunzinar*, musical instruments) or the common one (^{GIŠ}*saḫi-*, cf. Soysal 2004: 150). In one doubtful case, *ḫadauri-*, both genders seem to be attested in Hittite.[21] Animate referents, more obviously, entail adaptation to a common gender noun in Hittite: examples include the well-known titles *tabarna-* (if Hattian) and *tuḫukanti-*, that are sometimes used in Stammform, but also religious designations and lesser titles, e.g. *šaḫtarili-* (c., a singer), *ḫatawaya-* (also a priest).

Hattian seems to have an *-l-*morpheme that produced names of professions (Soysal 2004: 228, prefers to analyse it as a suffix of masculine, which is, however, undecidable). Most of the examples come from a list of Hattian professional designations contained in the CTH (263.A i 8–20) that includes *paršiel* (a performer), *šahtaril* (a singer), *duel* (a priest), *ḫaggazzuel* ('drinker'?), *dagunrunail* ('tent man', according to Miller 2013: 91), *luizzil* ('runner'), *duddušḫiyal-* (an official). While forms ending in a vowel are generally borrowed as such in Hittite, with the final vowel being treated as the theme, a few of these correspondences show the addition of either an *-i-* or an *-a-*vowel, because of the absence of *l*-stem common gender nouns in the target language. An example of *-i-*extension is the above-mentioned *šaḫtarili-* (c.), while cases in which an *-a-* is used as an extension include *taḫayala-*[22] and *duddušḫiyalla-* (with a gemination of the [l] that may indicate the reanalysis of the word as an *-alla-* nomen agentis).

A peculiar and complex case of lexical correspondence between Hittite and Hattian reflects the complex linguistic situation in a relatively early phase of the history of Hattuša. It is the occurrence of the hapax legomenon ^{LÚ}*ḫaggazuwaš-šieš* in the graphically Middle Hittite (and according to Miller 2013, linguisti-

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[21] The word *zippulašni* is attested with clear common gender endings only after the OH phase (HEG Z: 760–762), while it may be attested as a neuter gender *-i-*stem in the earlier occurrences (provided that these are not simply stem-forms). Given the limited amount of evidence, we hesitate to consider this an example of gradual diachronic adaptation of the morphology.

[22] Note, however, that CTH 262 (iv 64–66) suggests that the denomination of the barber in Hattian was *taḫaya-* and not *taḫayal*; in this case, we would be dealing here with the addition of a *-la-* in Hittite, which may be analogic to other genuine Anatolian professional designations in *-la-*. A hypercorrection of the Hattian form is not to be entirely excluded either.

cally and historically older) instruction text IBoT 1.36 iv 37. The designation refers to some kind of profession or role (the fragmentary context is unhelpful), and formally the word can only be parsed as a base *ḫaggazuwa-* with the addition of a Luwoid relational adjectival derivational morpheme *-ašša/i-* (the same that builds the paradigmatic quasi-inflectional genitival adjectives in Luwian). The ^LÜ*ḫaggazuwašši-* has a role in the distribution of drinks (and food?) to the royal guard, and can only be ultimately derived from the Hattian ^LÜ*ḫaggazuwel*, the cup-bearer. However, in the list contained in the instruction CTH 263 (A i 14), the translation of ^LÜ*ḫaggazuwel* is given as the genuine Hittite word *akuttar(r)a-*. There seem to be two concurring translations, one as an Anatolian word, the other as a Hattian loan, that, however, is adapted by using a Luwoid suffix instead of a Hittite one. In any case, all adaptations of nouns of professions and titles end up in the common gender of Hittite.

Finally, while gender assignment in the case of direct (or presumably direct) Hattian loans obliterates the masculine/feminine opposition and integrates the noun in the oppositional system of Anatolian, with animate nouns strictly assigned to common gender and inanimate ones selecting either the neuter or the common one, the distinction existing in Hattian may be interesting if one turns to possible calques. In the multicultural environment of Middle Bronze Age Anatolia, Hattian and Akkadian (more precisely, Assyrian) were the two main languages that had consistent contacts with Hittite and Luwian and that did have gender. The gender system of Assyrian, however, is exactly that which is typical of inflected Semitic languages, but Hattian has an agglutinative treatment of morphs. Therefore, it may be worth wondering whether the production of agglutinative-like non-grammatical feminines in *-šara*[23] in Hittite (*ḫaššuššara-*, *išḫaššara-*) may have been a calque on the Hattian morphological minimal pairs of the type *katte* : *kattaḫ*. Given the limited number of available lexemes, this suggestion we make remains typologically well-founded, but tentative and speculative.

4.3 Hurrian

The coexistence of Hurrian and Hittite as spoken languages in Anatolia predates the Hittite Old Kingdom, with Hurrian elements already attested in the Old Assyrian documentation (the rare personal names being the most significant evidence, as early Hurrian loans such as the *bīt ḫamri* sanctuary may have been brought into Anatolia by the Assyrian traders).[24]

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[23] See Hoffner/Melchert 2008: 59. The suffixoid also emerges in personal names (cf. Laroche 1966: 302–306). It is possible that the base **ašra/i-* in Luwian *ašraḫit-* 'femininity' is etymologically related; Luwian exhibits a single certain case in which °-*ašri* acts as a suffixoid: the pair *nani-* 'brother', *nanašra/i-* 'sister'.

[24] Cf. AHw, s.v. *ḫamrum*, for the occurrences.

During the life of the Hattuša archives, Hurrian loans in Hittite do emerge quite copiously, and virtually all of them present an *i*-stem, but their analysis poses a very specific problem: they tend to occur in very similar contexts, with a large number of them attested only in rituals and ritual lists in an indirect case, that prevents the positive identification of the gender. The case in which most loans occur is the dative-locative, employed to encode the beneficiary of a religious dedication or offer, as follows:

> KUB 15.31 iv 27–28 (HW² III/18: 571–572) [*nu*] *šepšiya ḫišamšiya* 2 MUŠEN[ḪI].A
> [N]A₄-*ri* RA-*anzi*
> 'They smash two birds with a stone for the *š.* and the *ḫ.*'

Most of the loans that have been – more or less convincingly – identified in this type of texts only occur in this context, or, in some cases, as subject of clauses; when they do, they usually appear as *i*-stems with no sign of inflection, leaving us with the doubt: are they true neuters, because no -*š* of the nominative appears, or are they simply quoted in a stem-form?

This doubt can be solved only for a smaller number of Hurrian loans that appear in more generous Hittite contexts, and that present other case endings too. Examples of nouns that are convincingly Hurrian will help highlight different paths and types of derivation.

A rather simple case is the direct integration of a Hurrian noun with assignment of a gender in Hittite without further morphological elaboration: ᔆᴵᴳ*ali-*, a tissue.[25] Contrary to quite a few cases in which words have been described as Hurrian because they have no Anatolian or Semitic etymology and are *i*-stems (in our opinion, a very incautious way to proceed), *ali-* is connected to the Hurrian noun *alāli-*, a piece of clothing, and to the verb *ali/e-*, meaning 'to draw close, to shorten' (LHL A, s.v.), the meanings of which are assured by bilingual occurrences. Regardless of the presence of the determinative, the attested forms are: nom.sg. *a-li-iš*, *a-li-š=a…*; acc. *a-li-in;* abl. *a-li-ya-az;* instr. *a-li-it*. In spite of the inanimate "natural gender" of the reference, the noun has been adapted as a common gender *i*-stem noun in Hittite. Other examples exist, including, for instance, *lupanni-*, and *šeḫelliški-*. The latter belongs to a complex family of words that ultimately derive from Hurrian *šeḫelli-*, all borrowed in Hittite with different paths of adaptation. The word *šeḫelliški-*, however, is a very plain example of a direct loan from Hurrian to Hittite with the attribution of *i*-theme and common gender, and, again it is very likely to be the name of a container (but cf. Trémouille 1996): thus the attribution of animate gender is not a matter of natural gender of the reference. However, more complex cases exist even for words that show a consistent morphological treatment in Hittite. An example is represented by *pūḫugari-* 'replace-

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[25] On *ali-*, cf. HED s.v., HW² s.v.

ment', which is attested in the following writings: sg. nom. *pu-u-ḫu-ga-ri-iš*; acc. *pu-u-ḫu-ga-ri-in*, *pu-ḫu-ga-re-en*, *pu-u-ḫuˈ-ga-ri-in*; gen. *pu-ḫu-u-ga-a-ri-aš*, plus a series of Akkadographic stem-forms (mostly preceded by Akkadographic prepositions and perhaps analyzable as datives/locatives). Morphologically, this case is identical to ^{SÍG}*ali-*. Semantically, it does not have an inanimate "natural gender", because its reference varies based on the context; nevertheless, the adaptation, once again, selects common gender. The difference between ^{SÍG}*ali-* and *pūḫugari-* regards the path of borrowing. While ^{SÍG}*ali-* is certainly Hurrian and not attested in other languages of the area, *pūḫugari-* is analyzable as a base Akkadian word, *pūḫum* 'replacement, substitute', borrowed into Hurrian and extended with a Hurrian suffix, producing a reconstructed **pūḫu=ugar=i*.[26] While this would point to Hurrian being a necessary step in the borrowing process, the existence of an Akkadian *pūḫuqaru* (and of a similar word *pūḫizzaru*; CAD P: 483 and 501) in Nuzi and Ras Shamra makes it impossible to establish whether the loan into Hittite derived from one or the other model language.

Several adapted Hurrian loans in Hittite exhibit rather peculiar morphologies and inflections, which in some cases indicate that Luwian had a major role in the transmission of the lexical material, as was already pointed out by Carruba (1967). A number of nominals borrowed by Hittite from Hurrian seem to have been assigned two alternative morphological inflections: one as common gender vowel stems (mostly *i*-stems), another one as a neuter gender dental stem, mostly in °-*it*-, but in at least one case also in °-*ut*- (*ḫarzazu-*/*ḫarzazut-*, but other forms also exist, to which we will return shortly). Since most of the forms do present a final /i/ vowel, which is typical of Hurrian, it is possible that the common gender *i*-stem inflection represents a genuine Hittite adaptation, similar to the one that occurred by words like the above mentioned ^{SÍG}*ali-*. The competing °(V)*t*-declension, on the other hand, is strongly remindful of the Luwian dental-stem neutra (a significant number of which present a derivational morpheme -*aḫit-*, which may be attested also in at least one possible – albeit problematic – loan from Hurrian, *anaḫiti-*; cf. Giorgieri 2012, for the possibility that two different Hurrian models existed).

The presence of competing inflectional series seems to be the rule, as can be illustrated by examining the adaptation and inflection of the borrowed *ḫarzazu-*° group[27] and of the *aḫrušḫi-*° and *anaḫit-*° groups.

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[26] Since Hurrian =*ugar*= builds verbs from verbs, it is possible that the Akkadian model word was rather the D-stem verb *pūḫḫum*; on Hurrian =*ugar*= cf. Giorgieri 2000: 197f.

[27] For a different analysis of this cases, cf. Watkins 1993.

Relevant cases	ḫarzazu- c.	ḫarzazu-n n.	ḫarzazut- n.	ḫarzazuta- c.
n.sg.				
a.sg.	ḫarzazun, ḫarzašun			ḫarzazutan
indirect cases	instr. ḫarzazuit	instr. ḫarzazunut	dat.sg. ḫarzazuti instr. ḫarzazutit	
n.a.n.sg.		ḫarzazun		
n.a.n.pl.			ḫarzazuta	

Relevant cases	aḫrušḫi- c.	aḫrušḫit- n.
n.sg.		
a.sg.	aḫrušḫin	
indirect cases	dat. aḫrušḫiya dat. aḫrušḫi abl. aḫrušḫiyaz	dat. aḫrušḫiti
n.a.n.sg.		aḫrušḫi
n.a.n.pl.		

Relevant cases	anaḫiti- c.(?)	anahi- c.	anaḫit- n.
n.sg.			anaḫi
a.sg.	[a]naḫitin (or: [NIN]DAnaḫitin)		
indirect cases		dat.pl. anaḫiyaš	
n.a.n.sg.			
n.a.n.pl.			anaḫita

In general, gender assignment works on two competing paths for inanimate loans from Hurrian: those which are assigned a neuter stem follow a dental-stem inflection, but there are often traces of a competing common one. Common gender loans, on the other hand, mostly follow an *i*-stem, with some exceptions.

Finally, it should be stressed that this pattern seems to be typical of loans that enter Hittite from Hurrian, with and without the mediation of the Luwian language. Cases of words that show this pattern and ultimately derived from words that were not originally Hurrian must be interpreted as having been first borrowed by Hurrian, and then having followed the path we just outlined.

For Hurrian words:
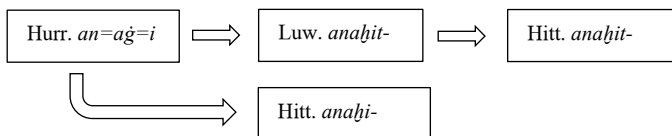
For loans in Hurrian from other languages:

| Akk. *kasmu* | ⇒ | Hurr. *kazmi* | ⇒ | Luw. *kazmit-* | ⇒ | Hitt. *kazmit-* |

| Hitt. *kazmi-* |
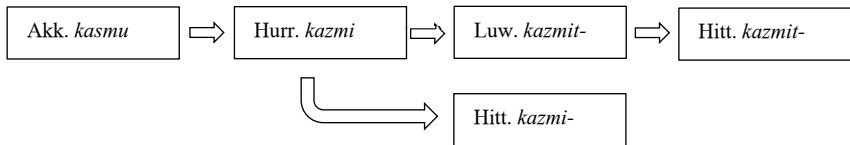
4.4 Akkadian

Akkadian loanwords in Hittite are maybe the most difficult to evaluate. The issue of the Akkadian language at Boğazköy is a very complex one, because it includes a number of sub-issues related to the nature of what we generically call Akkadian – which varied a lot over time, space, and literary genre (for instance, the grapholect of the Akkadian annalistic documents of the Old Hittite kings is different from the Akkadian of diplomatic texts, medical texts, etc.) – and to the different types of Akkadian words occurring in Hittite texts, that means Akkadian loanwords vs. the so-called "Akkadograms".

As is well-known, Hittite texts often include Sumerian logograms, called Sumerograms, and Akkadian words that, although written by means of syllabic signs, are considered to be heterographic writings that were pronounced in Hittite, as seems to be indicated by sporadic cases of Hittite phonetic complementation.[28] However, there seems to be some evidence that, sometimes, such Akkadograms were actually pronounced in Akkadian, as would be shown by *BE-LU-uš-ša-an* (HKM 52, 25 and HKM 80, 5), which, being a nominative/vocative singular, cannot represent any form of the Hittite noun *išḫa-* 'lord'.[29] In this case, however, other solutions can be imagined: theoretically, it is possible – although very unlikely – that *be-lu-uš* could be regarded as an assimilated loanword, or – much more likely – that the sequence *BE-LU-uš-ša-an* resulted from dictation of the Akkadian word (this is not strange, since mistakes provide independent evidence that also Sumerograms were sometimes written under dictation in Sumerian),[30] which does not imply that it was then read in Akkadian.

In other cases, we cannot exclude that an Akkadian word should really be considered a non-assimilated loanword (and therefore pronounced in Akkadian), rather than an Akkadogram representing a Hittite word.

However, such complex issues, for the moment, can be excluded from this paper, because we are primarily dealing with assimilated loanwords.[31]

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[28] Cf. Weeden 2011: 10–13. Examples include ᴸᵁ*BE-LUM-aš* (KBo 17.30 iii 11), ᴸᵁ*BE-LÍ-ša* (KBo 25.121 i 10), *BE-LU*ᴴᴵᴬ-*uš* (KUB 23.11 ii 35), ᴳᴵˢ*GA-AN-NU-UM-it* (KBo 5.2 iv 36), ᴸᵁ·ᴹᴱˢ*ME-ŠE-DI-an* (KBo 17.11+ i 2, 3), and ᴸᵁ·ᴹᴱˢ*MU-RI-DI-ša* (KBo 25.31 iii 10, KBo 20.27 rev.? 7).

[29] Cf. Weeden 2011: 175f.

[30] See also Hoffner 2009: 384 fn. 154.

4.4.1 Direct Akkadian > Hittite path

While it is usually unproblematic to recognise loanwords of Akkadian origin in Hittite (albeit with all due caution as to what "Akkadian" means), the correct identification of the path through which these loanwords enter Hittite may be a difficult task.

Basically, the problems lie in the following: (1) most of the nouns that can be traced back to the Akkadian language are *i*-stems in Hittite; (2) in the Akkadian noun inflection, the singular oblique case ends in -*i*(*m*), and the plural non-nominative ends in -*i*; (3) some Akkadian loanwords in Hittite show Hurrian intermediation, as clearly indicated by the presence of Hurrian affixes (i.e. they properly are Hurrian loanwords, whose origin is ultimately Akkadian); (4) Hurrian often adapts Akkadian loanwords as *i*-stems.[32] Given this, it is difficult to determine if Akkadian loanwords appearing as *i*-stems in Hittite should be considered to be direct loanwords, possibly depending on the Akkadian oblique stem (which is not mandatory, since Hittite may have independently selected a specific noun class to assimilate Akkadian loanwords), or should be instead regarded as loanwords intermediated by Hurrian.

Once again, however, another diachronic issue should be kept in mind whenever dealing with loans adapted as *i*-stems. Starting from the 14th century, the structural morphological influence of Luwian led to an extension of the *i*-mutation to Hittite as well.[33] Therefore, while the acquisition of an *i*-stem may depend on Hurrian origin or Hurrian intermediation, it cannot be treated as conclusive evidence unless a Hurrian morph is clearly identifiable. Indeed, any loans of any origin that entered into Hittite and were integrated *before* the acquisition by contact of the Luwian *i*-mutation may earlier have belonged to a different thematic noun class, even if it is unattested.

Therefore, we prefer to start from possible Akkadian loanwords that do not appear as *i*-stems in Hittite (*i*-stems will be dealt with in the following paragraph), although we cannot be sure that they actually reflect direct contact. Furthermore, their status as Akkadian loanwords should be assessed before discussing their adaptation in Hittite.

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[31] To be clear, in a language that has a pervasive gender system, non-assimilated loanwords are also allotted to a grammatical gender (e.g. *weekend* is masculine in Italian, while *class action* is feminine), and it is unequivocally shown by the agreement (cf. *un lungo weekend* vs. *una class action organizzata*). Therefore, we should also expect that non-assimilated loanwords in Hittite were either common or neuter like the other Hittite nouns. However, since the identification of non-assimilated Akkadian loanwords in Hittite is problematic, we chose to limit our research to the assimilated ones.

[32] Cf. Giorgieri 2000: 198f. See also Neu 1997.

[33] Cf. Rieken 1994, Yakubovich 2010: 334–337.

There are few non-*i*-stem borrowings from Akkadian in Hittite, some of them are quite uncertain, and sometimes they are hapax, e.g. Hitt. *kumra-* (a priest), common gender, only occurring in the ritual fragment KUB 59.60 ii 8, 9 (acc.sg. ᴸᵁSANGA *kumran* and stem form in *UMMA* ᴸᵁSANGA *kumra=MA*), which clearly derives from Akk. *kumru*. Similarly, Hitt. *ḫuripta-* 'desert', grammatical gender unknown (only attested as dat.-loc.pl. *ḫuriptaš*), only occurring in the myth of Elkunirsa und Ašertu,[34] derives from Akk. *ḫuribdu* 'id.' and may represent a nonce word in a translation text,[35] as well as ᴳᵁ⁴*alu-*, common gender (nom.sg. ᴳᵁ⁴*aluš*, acc.sg. ᴳᵁ⁴*alun*, ᴳᵁ⁴*alūn*),[36] denoting the heavenly bull in the Gilgameš myth (< Akk. *alû*) and possibly to be regarded as a proper name,[37] unless it is an Akkadogram, the correct transliterations thus being ᴳᵁ⁴*A-LU-uš*, ᴳᵁ⁴*A-LU-un* and ᴳᵁ⁴*A-LU-Ú-un*.

Hitt. *arzana-* (also *aršana-*), probably a common gender noun,[38] always occurring with *per*/É 'house' with an alleged meaning 'inn, hostel, brothel',[39] is generally regarded as a loanword from Akk. *arsānu*, designating a kind of groats,[40] attested from Old Babylonian (also as a loanword in Sumerian, a r - z a - n a). É *arzana-* would thus originally mean 'porridge-house', and this solution is supported by the fact that, in the *ḫaššumaš*-festival for the Hittite prince (CTH 633), part of the rites are performed in the *arzana*-house, where the prince asks for food and receives, among other things, 3 *UPNU ARZANNU* (IBoT 1.29 rev. 47). The Hittite hapax ᴺᴬ⁴*y*]*ašpun* 'jasper' (common gender acc.sg.) in KUB 15.5+ i 4 (CTH 583, NS) is clearly related to Akk. (*j*)*ašpû-* 'id.',[41] but there are some

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[34] See the occurrences in HED Ḫ: 398f.

[35] Note however that a possible derivative verb *ḫuriptai-* is found in a festival for Ištar (KUB 45.46, 9').

[36] See the occurrences in HW² A: 63.

[37] Cf. Dardano 2012: 398f., Dardano 2018: 354.

[38] Cf. acc.sg. *arzanan* in KBo 5.6 i 16, but nom.sg., nom.pl., and acc.pl. are not attested, so that the possibility that it was a neuter noun in -*n* cannot be completely ruled out.

[39] See Hoffner 1974. Cf. also, however, the discussion in Mouton 2011 for the meaning. This building is mostly written as É *arzana-*, but the occurrence of *arzana parna* in IBoT 1.29 obv. 29, 50 (CTH 633.A, MS?), [*a*]*rzanaš parna* in KBo 13.223 iii 2' (CTH 652.III, MS), and *arzanaš É-ri* in KBo 16.84 obv. 2' (CTH 670.227, OH) and KBo 19.163 iv 42' (CTH 738.I.1.A, NS) confirm that É was not a determinative, at least in origin, since I would not exclude that some forms showing case attraction – e.g. acc.sg. É *arzanan* (KBo 5.6 i 16; CTH 40.IV.I.A, LNS) and abl. É *arzanaz* (KBo 7.42 IV 4'; CTH 666, NS) – could testify a metonymic extension of the original determiner noun *arzana-* to mean the building itself, such as Italian *caffè* < *bottega del caffè* (therefore, the correct transcription would be, in such cases, ᴱ*arzanan* and ᴱ*arzanaz*). See also Yakubovich 2006: 44–45. Such a hypothesis could be supported by the fact that the attendant of the *arzana*-house is called *arzanala-*.

[40] Cf. Güterbock 1956: 90 and HED A: 187, *contra* HEG A: 75.

[41] Cf. CAD I–J: 328. According to Landsberger (1967: 154 fn. 84), *ašpû* and *jašpu* are two different lemmas (see however Polvani 1988: 124).

problems. The fact that Akk. (*j*)*ašpû-* is regarded as a foreign word[42] may not be a serious problem, since the Akkadian word may have been the source of the Hittite one anyway. Indeed, the Hittite form only occurs in KUB 15.5+, where the Akkadogram ^{NA₄}*YAŠPU* is also found (INIM ^{NA₄}*YAŠPU*, 'the issue of the jasper', in i 4), and the final -*u* is a good indicator of "Akkadian-ness". However, the occurrence of the Akkadogram ^{NA₄}*YAŠPU* on the very same line strongly suggests an Akkadographic interpretation for ^{NA₄}*y]ašpun*, i.e. ^{NA₄}*Y]AŠPU-un*, with a Hittite phonetic complement.[43]

Hitt. ^{NINDA}*tappinnu-* (a kind of bread), common gender (only acc.pl. ^{NINDA}*tap-pinnuš*), is also problematic. As far as we know, this noun is only attested in the Building Ritual CTH 415: the only form with Hittite inflection occurs in KUB 32.137+ ii 16 ([*p*]*ár-ši-ya-an-na-i-ma* ^{NINDA}*tap-pí-in-nu-uš*, with dupl. KBo 40.20+ l.c. 3': ^{NINDA}*tap-pé-e-nu-uš*), while the stem-form ^{NINDA}*tap-pí-in-nu* consistently occurs elsewhere in the same text and its duplicates (always preceded by a numeral). The noun is probably related to Akk. *tappinnu* (< Sum. dabin, written as ZI₃.ŠE),[44] and an Akkadian origin is also likely because of the mention, in this ritual, of Mesopotamian deities, such as Kulla and NIN.É.MU.UN.DÙ ('the lady built the house'),[45] not attested elsewhere in Hittite texts. Given that, it is likely that the stem-form should be simply regarded as an Akkadogram, ^{NINDA}*TAP-PÍ-IN-NU*, while ^{NINDA}*tap-pí-in-nu-uš* may represent a nonce word (in the preserved text, it appears as the first occurrence of the word, and it is the only one without a numeral), or, less likely, an Akkadogram with Hittite phonetic complement, ^{NINDA}*TAP-PÍ-IN-NU-uš* (but note the variant ^{NINDA}*tap-pé-e-nu-uš*), representing an unknown or undetermined Hittite word.

The case of Hittite common gender *kaparta-/kapirta-*, a rodent, is more complex. This word is usually traced back to a PIE compound: **km̥b(^h)i-Hrōd-* 'small rodent' (Neumann 1985: 20–23), **kom-b^her-t-* 'one who digs' (Kimball 1994: 85), or **kom-b^hér-t-/kom-b^hr̥-t-* 'one who carries together, collector' (Oettinger 1995: 44–46); however, all these solutions involve some formal problems, which, together with the *a/i*-alternation of the second vowel, suggest a foreign origin.[46] In our view, a good solution is the one suggested by Kroonen (2016), who ulti-

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[42] "Culture word" according to HED E–I: 504.

[43] Polvani (1988: 124) suggests ^{NA₄}*mar(r)uwašḫa-* as the Hittite reading of ^{NA₄}*YAŠPU* and explains the unexpected acc.sg. ^{NA₄}*Y]AŠPU-un* comparing the acc.sg. ^{NA₄}*paššilun* of the stem ^{NA₄}*paššila-* 'stone', beside ^{NA₄}*paššilan*.

[44] Cf. CAD T: 182f.

[45] Note also the presence of Ea, usually not attested in Hittite rituals; see G. Torri (ed.), hethiter.net/: CTH 415 (INTR 2012-07-30).

[46] Cf. EDHIL: 438f.

mately traces back Hitt. *kaparta-/kapirta-* to Proto-Semitic *ʕ*akbar-t-*, fem. from *ʕ*akbar-* 'jerboa' (cf. Akk. *akbaru*; fem. *Akbartu* is attested as personal name). It is difficult, however, to precisely determine the model language, since the expected Hittite outcome of Akk. *akbartu* would be **akbart-*, and we would expect an initial *ḫa-* if the word was borrowed from some other Semitic language. Therefore, Kroonen tentatively suggests a Hattian intermediation, since Hattian had a productive *ḫa-* prefix, comparing Hatt. *ḫa-prašš-un* > Hitt. *paršana-* 'leopard'. The borrowing scenario should thus be reconstructed as follows: Semitic *ʕ*akbar-t-* > Hatt. **ḫakbart-* > Hitt. *kaparta-/kapirta-* through reanalysis **ḫa=kbart-*. If this is correct, we cannot consider *kaparta-/kapirta-* to be a direct loanword.

The issue about Hitt. NA₄*ḫekur* is debated. Despite several claims about its Indo-European status as a neuter noun,[47] inflected forms such as *ḫé-kur-uš* and NA₄*ḫé-kur*ḪI.A*-aš* (common gender!) strongly suggest that it represents a quasi-logographic writing of Sum. É.KUR, as suggested by Silvestri (1983). However, no Akkadian intermediation seems to have been involved.

Hitt. *našarta-* 'protégée, favourite, concubine',[48] presumably only common gender (although occurring only in dative case), is attested in KBo 14.142+ i 14 (CTH 698.I.A, LNS) and in its duplicate KUB 27.13 i 9 (CTH 698.I.B, LNS), in the following context: 1 NINDA.SIG ᵈNIN.É.GAL *na-šar-ti-ya* ŠA ᵈ10 (dupl.: 1 NINDA.SIG ANA ᵈNIN.É.GAL *:na-šar-ta-aš-ša* ŠA ᵈIŠKUR), 'one flat-bread to Ninegal and to the favourite (dupl.: favourites) of the Storm-god'. The text belongs to the Hurro-Syrian *milieu* and deals with the cult of Teššub and Ḫepat of Aleppo; therefore, Laroche lists the word in his Hurrian glossary (GLH: 179).[49] The stem is not assured: Laroche registers it as an *i*-stem, which would lead to consider *našartiya* as the regular dative singular and the apposition of Ninegal ('one flat-bread to Ninegal, the favourite of the Storm-god'). Conversely, the variant *:na-šar-ta-aš-ša* in the duplicate can only be explained as a dative plural *našartaš* + the conjunction *-(y)a*, thus excluding the appositive interpretation. It is difficult to say which of the two interpretations one should support: to our knowledge, there seems to be no other explicit evidence of Ninegal as the concubine of Teššub;[50] however, in Old Hittite, the logograms ᵈNIN.É.GAL and

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[47] See Dardano 2018: 355, with references.

[48] Cf. HED N: 62.

[49] See also CHD L–N: 401 and HEG N: 278f.

[50] Haas (1994: 383 fn. 10) quotes KBo 35.155 iv 6' (CTH 706, NS) ᵈ*Bi-it-ḫ]a-nu E-ŠE-ER-TI* ᵈ10-*ub-bi-na* '[… ᵈBitḫ]anu, concubine of Teššub', which he regards as referring to Ninegal, being Bit-ḫanu ('daughter from Ḫanu', according to Haas) her epithet. Such an assumption is based on KUB 27.13 i 10, [1] NINDA.SIG ᵈ*Bi-it-ḫa-nu* ᵈNIN.É.GAL ŠA ᵈ10 URU*Ḫa-la-ap*, '[one] flat-bread to Bit-ḫanu Ninegal of the Storm-god of Aleppo', although the duplicate KBo 14.142+ i 15–16 has a different text: 1 NINDA.GUR₄.RA *tar-na-aš* 1 NINDA.SIG 1 BI-IB-RU KAŠ [A-N]A? ᵈ*Te-e-nu* ᵈ*Bi-it-*

^d*IŠTAR* were used to indicate several young goddesses, wives or concubines of local storm- and mountain-gods,[51] and the *Glossenkeil* before :*na-šar-ta-aš-ša* may point out an unexpected form. The word is generally traced back to Akk. *esertu* 'concubine', but Puhvel (HED N: 62) also suggests Akk. *naṣartu, naṣirtu* 'kept woman' < *naṣāru* 'to keep somebody under guard, to protect, to take care of', which, however, seems not to be attested with this specific meaning.[52] If the meaning 'concubine' (*vel sim.*) is correct, one may actually think of a loanword from Akk. *esertu* through Hurrian intermediation, but we do not know Hurrian nasal prefixes that can account for such an adaptation and no other Akkadian loanword in Hurrian attests such a treatment.[53] A cross between the Akkadian words *esertu* 'concubine' and *napṭartu*, attested as Akkadogram in Boğazköy with the meaning 'wife of second rank', may be possible, but unprovable. All in all, the origin and meaning of Hitt. *našarta-* remains very uncertain and thus it cannot help in this discussion.

All in all, the only Hittite words among those discussed here that can be regarded as a possible direct loanword from Akkadian seem to be *kumra-, ḫuripta-, arzana-*, and possibly ^{NINDA}*tappinnu-*, all allotted to the common gender, except for *ḫuripta-*, only occurring in dative-locative case. It could be objected that these forms are occasional transpositions of Akkadian words, sometimes in translation texts, not genuine loanwords, but such an argument can be reversed: for the purpose of our analysis, these examples are equally relevant, since they involve the assignment of a grammatical gender. Moreover, their very nature of nonce loanwords in translation could be enough to ensure direct transmission. Conversely, ^{NA₄}*yašpu-* admits an Akkadographic explanation, *kaparta-/kapirta-*, although likely Semitic, is not consistent with the hypothesis of a direct borrowing of Akk. *akbartu*, and may be intermediated by Hattian, and *našarta-* (or *našarti-*) cannot be easily traced back to an Akkadian word.

ḫa-nu Ù *A-NA* ^dNIN.É.GAL *ŠA* ^d10 ^{URU}*Ḫa-la-ap* 'one breadloaf of a *tarna*-measure, one flat-bread, one rhyton of beer [t]o⁷ Tēnu, Bitḫanu, and to Ninegal of the Storm-god of Aleppo', according to which Bitḫanu and Ninegal would be two different deities. Even if the identification between Ninegal and Bitḫanu was correct, the text in KBo 35.155 quoted by Haas does not have Bitḫanu. The correct transliteration is the one offered by Groddek/Kloekhorst 2006: 187, iv (5') … 6 GAL^{ḪI.A}-*ma-kán* (6') [*A-NA*] *eras.* <<*ni*>> *E-ŠE-ER-TI* ^d10-*ub-bi-na* (7') [*šu-u*]*n-na-i* (or perhaps really *né-e-še-er-ti*, since the two erased signs after the break seem to represent an aborted attempt at writing NI E).

[51] Cf. Taracha 2009: 56.

[52] Cf. CAD N/2: 51–52 s.v. *naṣru*. In a lexical list from Boğazköy, KBo 1.44+ i 32 (CTH 301.a.1.A, Series erim.ḫuš = *anantu*, LNS), the Akkadian entry *na-ZAR-ti* [DING]IR^{LIM} occurs, matching Sumerian [d i ĝ i r - t u]k u (Hittite translation unfortunately lost), which could be derived from either *nṣr* 'to protect' ('protected by god') or *nzr* 'to curse' ('cursed by god'), and possibly be regarded as a feminine personal name (cf. Scheucher 2012: 615).

[53] See the material collected by Neu 1997.

4.4.2 Intermediated Akkadian > Hurrian (> Luwian) > Hittite path

Some words for which an Akkadian origin has been suggested seem to show Hurrian intermediation, which is revealed by the presence of Hurrian suffixes. One clear example is Hitt. *pūḫugari-* 'substitute' (cf. also Nuzi Akk. *pūḫukaru*), common gender, ultimately derived from Akkadian *pūḫu* 'substitute, replacement' and showing the Hurrian suffix *-ugar-*,[54] although we cannot exclude a direct loanword from the Akkadian of Nuzi (see above). A more complex case is Hitt. *irimpi(t)-/irippi(t)-/eripi-* 'cedar':[55] This word shows two competing stems, the common gender one *eripi-* (only nom.sg. ^{GIŠ}*eripiš* in the festival for Teššub and Ḫepat, KUB 10.92 i 7, 11) and the neuter one *irimpi-/irippit-* (nom.-acc.sg./pl. ^{GIŠ}*irimpi*/^{GIŠ}ERIN-*pi*, nom.-acc.pl. ^{GIŠ}*irippida*).[56] The base is the Akkadian word *erēnu* 'cedar', although the possibility of a direct Hurrian borrowing from Sum. erin 'id.' (which is also the source of Akk. *erēnu*) cannot be excluded.[57] Even though the Hurrian prototype of the Hittite form, **erembi* or the like, is not attested, the suffix *-bi* is a typical Hurrian morpheme, and the texts in which the word occurs belong to the Hurrian *milieu*. The treatment of this word in Hittite with a common gender *i*-stem and a neuter gender stem in *-it-* is found in other Hurrian loanwords and may reflect the different path of borrowing: a direct path, from Hurrian to Hittite, producing a common *i*-stem, and an indirect path, through Luwian, which usually adapted Hurrian loans as neuter nouns in *-it-* (see the discussion on Hurrian loanwords above).[58] Hitt. *šankunni-/šakunni-* 'priest' (common gender), clearly derives from Akk. *šangû, šaggû* (< Sum. sanga) through Hurrian intermediation, revealed by the presence of the Hurrian suffix *-nni-*. Similarly, both Hitt. ^{MUNUS}*entanni-* and ^{MUNUS}*entašši-*, a priestess (both common gender), derive via Hurrian from Akk. *entu* (fem. of *enu* < Sum. en), also attested as Akkadogram in Hittite (*ēntani* is attested in Hurrian context in KUB 27.34 iv 17').[59]

Several other assured or alleged Akkadian loanwords are often believed to show Hurrian intermediation, even though there are no clear Hurrian morphemes, for several reasons, e.g. because they also occur in Hurrian passages from Boğazköy texts, or they occur in Hittite rituals or festivals belonging to the Hurrian *milieu*, or because they appear as *i*-stems in Hittite and sometimes show a secondary

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[54] Cf. Giorgieri 2000: 197f.

[55] Cf. Laroche 1948–1949: 18, Kronasser 1966: 244.

[56] See *HED* E–I: 284 for the occurrences. Note that ^{GIŠ}*irippida* only occurs in the birth ritual ABoT 1.17+ ii 5, 16, matching a sequence of three different wood names in the duplicates KUB 9.22+ ii 8, 22 and KUB 7.39, 16', ^{GIŠ}ERIN ^{GIŠ}*paini* ^{GIŠ}*ZERTUM*.

[57] Cf. e.g. Hurr. *uzi* 'flesh' < Sum. uzu 'id.' (see Richter 2012: 504).

[58] Cf. Carruba 1967, Melchert 2003: 198.

[59] Cf. HW² E, 42.

stem in *-t-*. Examples of Hittite *i*-stems allegedly derived from Akkadian via Hurrian include: ^{DUG}*aganni-* 'cup, bowl' (common gender; < Akk. *agannu*), also attested in a Hurro-Hittite festival (KUB 27.13 i 21); ^{LÚ}*apiši-* 'exorcist' (common gender; nom.sg. ^{LÚ}*apišiš*, nom.pl. ^{LÚ.MEŠ}*apišiuš*, < Akk. *āšipu*, with metathesis), attested in some tablets of the royal substitution ritual (CTH 421), beside the regular Akkadogram ^{LÚ}*ĀŠIPU*;[60] É *apuzzi* 'storehouse' (only stem form, < Akk. *abūsu*);[61] *ḫazzizzi(t)-* 'ear; wisdom' (neuter gender, also attested in Hurrian, < Akk. *ḫasīsu* 'ear');[62] *ḫuruppi-*, a kind of dish (common gender, < Akk. *ḫuruppu*, a metal dish);[63] ^{DUG}*kazzi(t)-*, a container for liquids (neuter gender, < Akk. *kāsu* 'cup'), also attested in Hurrian (cf. KBo 19.144+ iv 13' and its duplicates);[64] *kazmi(t)-* 'sample' (common gender *i*-stem vs. neuter gender stem in *-it-*; possibly < Akk. *kasmu* 'cut, chopped');[65] *laḫanni-*, a flask (common gender, < Akk. *laḫannu*);[66] *makalti-*, *magalzi-*, *makanti-* '(eating) bowl(ful)' (common gender, < Akk. *mākaltu*, a bowl, also attested as Akkadogram in Hittite and related to the verb *akālu* 'to eat');[67] ^{GIŠ}*paini(t)-*, 'tamarisk' (?) (allegedly neuter gender,[68] related to Akk. *bīnu*

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[60] ^{LÚ.MEŠ}*a-pi-ši-u*[*š* (or *-iš*) also occurs in the small fragment KBo 22.153, 3' (CTH 832). Note also ^{LÚ.MEŠ}*A-ŠI-PÍ-*⌈x⌉ in KBo 15.8+ obv. 6', possibly ^{LÚ.MEŠ}*A-ŠI-PÍ-*⌈*iš*⌉ or ^{LÚ.MEŠ}*a-ši-pi-*⌈*iš*⌉, although Otten (1974–1977: 175) suggests ^{LÚ.MEŠ}*A-ŠI-PÍ*[^Ḫ]^{I.A} (but the last sign does not really seem to be A, based on the photo). On this word, see especially Otten 1974–77 and Schwemer 2005–2006: 226. Hurrian intermediation is sometimes invoked based on the *š:p* metathesis, attested elsewhere in Hurrian (cf. Haas/Wilhelm 1972: 6 fn. 8), but metatheses are also attested in Akkadian itself, and it is also likely an association by folk etymology between the *āšipu* and the verb *epēšu* 'to do, to work, to perform incantation, etc.' (cf. Otten 1974–1977: 178). However, the co-occurrence of ^{LÚ}*apiši-* and the regular ^{LÚ}*ĀŠIPU* in the same text seems to speak against the direct borrowing of ^{LÚ}*apiši-* from Akk. *āšipu*, even though Hurrian intermediation cannot be proven anyway (cf. Schwemer 2005–2006: 226). Compare also Hittite *gurzip(p)ant-* 'wearing a hauberk', derived from an unattested noun **gurzipi-*, related to Akk. *gurpisu*, *gursipu* (also as Akkadogram *GUR-ZI-IP*, *KUR-PÍ-ŠI* at Boğazköy), which is however regarded as a foreign word (cf. CAD G: 139: both variants are attested in OB Mari, *gurz/sipu* occurs at Amarna, while only *gurpis/zu* is found at Nuzi), possibly Hurrian (see Richter 2012: 228f.).

[61] To be explained as an Akkadogram, É *A-BU-US-SÍ*, according to HZL: 190 and Schwemer 2005–2006: 225 fn. 48.

[62] Cf. HED H: 284–286.

[63] Allegedly Hurrian because of its occurrence in Hurrian passages (cf. HED H: 407f.).

[64] See Görke 2010: 127, 142 (with references).

[65] Cf. Pisaniello 2017.

[66] See however Giusfredi 2018.

[67] Cf. HED M: 16f.

[68] Occurrences include the stem form *pa-i-ni*, *pa-a-i-ni*, *pa-e-ni*, *pa-a-e-ni*, *pa-a-in-ni*, *pa-a-i-in-ni*, explained as a neuter nom.-acc., gen.sg. *pa-a-i-in-na-aš*, instr. *pa-i-ni-it*, and abl. *ba-a-i-ni-ya-az*, *pa-a-i-ni-ta-az*, *pa-a-in-ni-ta-az* (cf. HED PA: 57f.). Based on these forms, we may posit two stems: an *i*-stem (possibly *-a/i-*, considering gen. *pa-a-i-in-na-aš*) and an *it*-stem, the latter with likely Luwian intermediation (to which also the stem-form could belong, unless we think of an Akkadographic writing). We cannot determine the gender of the *i*-stem, but in the Hittite ritual fragment KBo 31.149,

'tamarisk', but consistent /ai/ in the Hittite forms is difficult to explain); *tuppi-* '(clay) tablet' (neuter gender, < Akk. *ṭuppu*, feminine gender[69] < Sum. d u b);[70] [LÚ]*ummiyanni-*, an official (common gender, < Akk. *ummiānu*);[71] [LÚ]*zakkinni-* 'prefect' (common gender, < Akk. *šaknu, šākinu*).[72] For all these cases, we refer to the discussion on Hurrian loanwords and their path of transmission above, although we cannot completely rule out the possibility that some of them represent direct Hittite borrowings from Akkadian, since the *i*-stem could easily derive from the Akkadian oblique stem (as is sometimes suggested) or can reflect a Hittite thematization independent from Hurrian (possibly also influenced by the Luwian pattern of *i*-mutation in NH).

For some other Akkadian loanwords appearing as *i*-stems in Hittite, a Hurrian intermediation is generally not invoked, e.g. *kappi-* 'bowl' (common gender, < Akk. *kappu* 'id.', also occurring as Akkadogram)[73] and *magari-* 'wheel (of the chariot)' (common gender, < Akk. *magarru, mugarru* 'id.', also attested as Akkadogram in Hittite).

In one case, it is possible to suggest a Luwian intermediation between Akkadian and Hittite: the noun *mitga(i)mi-, mittaka(i)mi-, mintaka(i)mi-* 'sweet bread', common gender, appears as the Luwian participle of an unattested verb **mitkai-*, possibly related to Akk. *matāqu* 'be sweet', *matqu* 'sweet' (so that *mitga(i)mi-* would mean 'sweetened'),[74] although this is not completely assured, and the alleged model Semitic language is not necessarily Akkadian.

Some other words, although occurring also in Akkadian, are probably Hurrian in origin, and therefore can be considered direct Hurrian loanwords. Thus, Hitt.

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3 [GIŠ]*pa-a-i-ni-š*[*a*] is found, which may represent a common gender *i*-stem (although Puhvel suggests a Luwian neuter with *-ša*).

[69] Cf. Weeden 2011: 197 with fn. 869.

[70] According to Tischler (HEG T/D: 451), Hittite *i*-stem points to Hurrian intermediation (the word is attested in Hurrian as *tuppe*).

[71] However, it is not clear why we should posit Hurrian intermediation "because of the *n*-derivation" (Dardano 2018: 356, referring to HEG U: 44f., probably misunderstood): according to Kronasser (1966: 245), who is the ultimate source of such a solution (quoted by Tischler), Hurrian intermediation would possibly explain the Akkadian *n*-extension in borrowing Sumerian u m - m i - a , u m - m e - a 'expert', but, even if this explanation would be correct (and it is probably not, since this *n*-suffix often appears in Akkadian loanwords and may represent a common strategy of adaptation), it does not concern the transmission of the Akkadian word to Hittite, where the *-n-* simply depends on the Akkadian model. Therefore, an alleged Hurrian intermediation should be based on other arguments.

[72] Cf. HEG Z: 627.

[73] Hitt. *nakappi-, negappi-, nikappi-* (a kind of bowl), common gender, may also be related to Akk. *kappu* 'bowl', but the nasal prefix is not clear and, in our view, cannot be explained invoking Hurrian intermediation (*contra* HED N: 42; see the discussion on *našarta-* above). Since the word seems to be attested only in rituals belonging to the Hurrian *milieu* (cf. HEG N: 257), a Hurrian origin is possible, but Akk. *kappu* cannot be the direct source.

[74] Cf. Goetze 1951: 72f., DLL: 71, HED M: 169, CHD L–N: 306.

ambašši- 'burning offering; place for burning offerings', common (and possibly also neuter) gender (nom.sg. *ambaššiš*, acc.sg. *ambaššin*, nom.pl. *ambaššiēš*, but often occurring as stem-form, which may perhaps represent a Luwian neuter stem in -*it*-, given the dat.sg. *ambaššiti*, beside *ambašši(ya)-*), seems to be formally related to Akk. *ambassu*, allegedly 'park, game preserve', only attested in late sources,[75] but they are probably independent borrowings of Hurrian *ambašše*, derived from the Hurrian verb *am-* 'to burn' (matching Hitt. *arḫa warnu-* in the bilingual "Song of release"),[76] admitting an unclear semantic shift in Akkadian. Hitt. *āpi(t)-* 'sacrificial pit', common and neuter gender (common gender *i*-stem vs. neuter gender stem in -*it*-, to which also the stem-form *āpi* could belong), is a borrowing from Hurrian, and gender fluctuation may reflect the contrast between a direct borrowing and an indirect one via Luwian (see above). Akk. *apu* 'hole, opening in the ground', only attested in NA and seen in Hittite with the same function,[77] should be probably regarded as a Hurrian or Anatolian loanword. Hurr. *āpi* may be related to (or derive from) Sum. a b 'window', which is also borrowed and adapted in Akkadian as a feminine, *aptu* 'window', attested from OA and OB onwards (conversely, Sum. a b can hardly be the direct source of NA *apu*).

Hitt. *adupli(t)-* (a kind of festive garb), neuter gender, is regarded as a Hurrian word borrowed via Luwian,[78] although it is not attested in Hurrian. Akk. *utuplu* (a fabric or weaving),[79] probably related to the Hittite word and attested in OB and at Mari, is considered to be a foreign word,[80] although the model language is unknown. All in all, we cannot determine the history of this word.

Hitt. *mannin(n)i-* 'necklace', common gender (nom.sg. *manniniš*, acc.sg. *manninin*, acc.pl. *mannin(n)iuš*), strongly resembles Akk. *maninnu* 'id.', which, however, is only attested in peripheric Akkadian (Amarna, Qatna, Alalaḫ), in texts mostly related to the Hurrian *milieu*.[81] Ultimately, it is probably an Indo-European word, and the source could be one of the outcomes of Indo-Iranian **mani-*, so that we have a possible scenario of diffusion from Mittani to Anatolia and the western periphery of the Akkadian world.

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[75] Cf. CAD A/2: 44.

[76] Cf. LHL A: 70f.

[77] Cf. Vieyra 1957: 100f. and CAD A/2: 201.

[78] Cf. Starke 1990: 207f., Richter 2012: 69 (with further references). The word is not recorded in the LHL.

[79] According to Hoffner (1989: 89), who suggests the possibility of an Akkadian loanword in Hittite, Akkadian also attests the variant *aduplu* beside *utuplu*, but neither the AHw: 1446 nor the CAD U: 347f. record this variant s.v. *utuplu* (although *aduplu* is recorded in both dictionaries under the letter A, with the reference to *utuplu*).

[80] Cf. CAD U: 347, HW² A: 571.

[81] Cf. CAD M/1: 211f. All the Amarna occurrences are in letters from Mittani (EA 19, 21, 22, 25), and in AT 440, 8 it occurs beside objects with Hurrian names.

Hitt. *nam(m)ulli-* 'bed', seemingly neuter (the only attested forms are the nom-acc.sg. *nam(m)ulli* and the dat.-loc.sg. *namulli*), has Hurrian origin,[82] although it also occurs in Akkadian (only NA).[83] The same applies to other Hurrian words attested both in Hittite and Akkadian, e.g. *ḫubrušḫi-* and *ḫupurni-*.

5 Conclusion

In general, Hittite shows a strong tendency to assimilate borrowed nouns as common gender nouns: As expected, nouns with human and animate referents are always assimilated as common gender nouns, while nouns with inanimate referents may show neuter gender under certain conditions:

1) Luwian loanwords may be neuter in Hittite; because of the morphological structural similarity of the two idioms, they are usually able to maintain their original gender. However, some Luwian neuter consonantal stems are assimilated as common gender vocalic stems in Hittite, partly because of the high productivity of the *i*-stem;

2) Hattian loanwords may be either common or neuter, the latter gender possibly being selected when a loan is compatible with a morphologically productive Hittite neuter noun class (e.g. *r*-stems);

3) Hurrian loanwords are assimilated as common gender nouns (mostly *i*-stems), unless they enter Hittite via Luwian, which in turn has a preferential class for assimilating foreign words (namely neuter stems in *-it-*);

4) Akkadian loanwords are assimilated as common gender nouns, except for *tuppi-* and loanwords which enter Hittite via Hurrian and Luwian intermediation.

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[82] Cf. Richter 2012: 265.

[83] Cf. CAD N/1: 253. See also the gloss *na-ma-al-lum* = *er-šu* SU^{KI}, 'bed in Subarean' (CT 18 4 ii 27).

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