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The structure of nominal paradigms in Indo-European languages

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The inflection of the oldest Indo-European languages shows different kinds of underspecification in the nominal paradigm. With regard to the *a*- and *ā*-stems in Old Indian, the most frequent stems in this language, the case system displays the most instances of underspecification. Confer for the masculine and feminine:

(1)(a) masculine

plural nominative/vocative *devāḥ*, dative/ablative *devébhyaḥ*
dual nominative/vocative/accusative *deváu*,
instrumental/dative/ablative *devābhyām*, genitive/locative *deváyoh*

(1)(b) feminine

singular ablative/genitive *sénāyāḥ*
plural nominative/vocative/accusative *sénāḥ*
dual nominative/vocative/accusative *séne*,
instrumental/dative/ablative *sénābhyām*, genitive/locative *sénayoh*¹

Number is not underspecified with one exception:

(2) feminine vocative singular *séne* and the dual nominative/vocative/accusative *séne*.
And gender, except that of the genitive plural,

(3) genitive plural masculine *devānām*, feminine *sénānām*

does not display underspecification. Following Corbett's definition of gender (1991: 44): it's first defining property is agreement. Secondly, gender is the most idiosyncratic of the functional categories of the noun, since it is 'either specified by virtue of inherent ... properties (natural kinds, of 'sorts'), or it is arbitrarily specified and hence must be learnt for the noun in question.' Gender is more important than number, since gender 'is inherently fixed for a noun, whereas [number] is usually instantiated and gives rise to different word forms in the paradigm of a noun.'

Concerning nouns the gender seems to be the most important grammatical category. Therefore, we will deal with phenomena that are connected to gender differentiation in the following. Firstly, we will treat transformations that bring about gender differences in the nominal paradigm. Then, we will turn to the relation of inflection and word formation of the feminine gender. In the process we will also talk about the semantic domain that is

1 Here, an important characteristic of the morphophonemics of the nominal paradigms of Old Indian becomes clear: In establishing paradigms, the Old Indian grammarians used the following procedure: identical case forms are never separated from each other. Compare the co-occurrence of the homophonic genitive and ablative singular of the *ā*-stems or the co-occurrence of the homophonic dative and ablative plural. This very old tradition has the same motivation as the Minimalist Morphology analysis. The purposes of the learner of the paradigms are respected (Wunderlich & Fabri 1995).

fundamental for expressing the *sexus femininum*. Finally, we will discuss the conception of word class that is linked to the above.

1. Transformations according to the pronoun

Sticking to the paradigm of the Old Indian *a-* and *ā-*stems for the moment one can find endings that usually occur on pronouns. One assumes that pronominally inflected adjectives like *viśva-* 'all' are responsible for this. However, mostly demonstrative pronouns are the driving force for the definition of the reference act². Moreover, languages show gender very explicitly in this form category, especially natural gender³. Therefore, one can assume that the inflection of the Old Indian *a-* and *ā-*stems in certain cells of the paradigm followed those of the pronoun. Probably in those cases where a coincidence of masculine and feminine would have occurred⁴; for example:

- (4) instr.sg. *sénayā*⁵ instead of *sénā* = older masc. *devā*; cf. *táyā* from the pronoun *tá-* 'this'
 dat.sg. *sénāyai* instead of **sénai* = older masc. *devai*; cf. *tásyai*
 loc.sg. *sénāyām* instead of **séne* = masc. *devé*; cf. *tásyām*⁶

However, the gender allocation concerning the Old Indian *a-* and *ā-*stems is partly motivated partly arbitrary. As is well known, one can find terms for animate as well as inanimate entities amongst the Old Indian *a-* and *ā-*stems:

- (5)(a) *nay-á-* 'leader', *nad-á-* 'bull', *hasta-ghn-á-* 'hand guard', *bhág-a-* 'contribution, luck', *bhay-á-* 'terror'

- (5)(b) *sūry-á-* 'sun goddess', *vats-á-* 'female calf', *nind-á-* 'admonition', *vṛjin-á-* 'deceitfulness'

In this case the gender differentiation does not have anything to do with the natural gender but is due to the nominal classification⁷. Hence, we are faced by the question where this differentiation comes from and ultimately by the question about the origin of the Genus femininum in the Indo-European languages.

2. Origin of the genus femininum

2.1. Hittite

2.1.1. Determinative

To date research into this subject matter can be found in Irslinger (2010), Melchert (2011; 2012) and Meier-Brügger (2010). A conference in memory of Johannes Schmidt 'Collective

2 Wiese 2004.

3 Even languages that do not have a gender differentiation, may have such a differentiation concerning pronouns, cf. engl. *he, she, it*.

4 Lühr 2002; 2003.

5 Zu dem Formans *-ay-* vgl. Lühr 1991. Jasanoff (2003: 202) derives Old Church Slavonic *-ojo* and Vedic *-ayā* from the complex sequence **-eh₂-ih₂-eh₁* (Gašiorowski 2010).

6 Doch auch das Maskulinum hat Umbildungen nach dem Pronomen erfahren, z.B. dat./abl.pl. *devébhyaḥ* anstelle von **devábhaḥ*; vgl. *tébhyaḥ*.

7 Cf. Balles 2004a.

and Feminine: Inflection or Word Formation?’ took place in Jena this summer. A *communis opinio* to this topic is yet pending. However, I want to propose a new starting scenario. My consideration is concerned with the question: Where do languages that do not have a Genus femininum mark the Sexus femininum the most likely? One does not have to look long for such a language in Indo-European. It is Hittite⁸. Hittite does not have any formal marking of the feminine gender⁹. Still, one can find markings of the Sexus femininum, namely the determinative ^{MUNUS} for people’s names¹⁰:

(6)(a)
^{MUNUS} *Puduḫepaš*¹¹

for relational terms:

(6)(b)
^{MUNUS} *šünzanna-* ‘mother of god(s)’ (priestess)¹²
^{MUNUS} *annawanna-* ‘stepmother’
^{MUNUS} *udati-* ‘female member of a certain social group, widow?, foster-mother?’

for other terms relating to people:

(6)(c) ^{MUNUS} *alḫuesra-/alḫuitra-* ‘priestess’

8 Hoffner & Melchert 2008: 64, 66. According to Hoffner & Melchert it remains a matter of debate whether this reflects a prehistoric merger of inherited masculine and feminine into a common (or animate) gender (Harðarson 1994: 32ff.) or an archaic system in which there was no feminine distinct from the masculine (Neu 1969: 237ff.). Likewise controversial is the suggestion that adjectives of the type *dankui-* ‘dark’, *parkui-* ‘pure’ are formal relics of the PIE feminine that have lost their original connotation as feminines (Oettinger 1987; Starke 1990: 85ff.; Melchert 1994). Complicating the picture of the *i*-stem noun is the phenomenon of so-called *i*-motion (or *i*-mutation). Most (but not all) Luwian nominal stems insert an obligatory *-i-* between the stem and the case endings of the nominative and accusative of the common gender, singular and plural (Starke 1990: 56ff.). In the case of *a*-stems, the *-a-* of the stem is deleted before the *-i-*. Derivatives show that the *-i-* is not part of the stem. The result, however, is in effect a paradigm with *-i-* in some forms and *-a-* in others. When the Hittites began to borrow Luwian nouns and suffixes, they not only imitated the Luwian usage in loanwords but also carried it over in some cases to native Hittite words. In paradigms of such nouns, the *-i-* forms tend to be found in the common gender nominative and accusative, and the *-a-* forms elsewhere (Rieken 1994: 43–47). This entailed not only creating new *-i-* forms to old *a*-stems (pl. nom. c. ^{MUNUS.MES} *katrīēš* to ^{MUNUS} *katra-* ‘female musician’, ^{GI} *attiēš* to *atta-* ‘father’, pl. acc. c. *anniuš* to *anna-* ‘mother’, *gimriuš* to *gimra-* ‘field’, sg. acc. com. ^{GI} *natin* to *nata-* ‘reed’), but also by ‘reverse *i*-mutation’ new *-a-* forms to old *i*-stems (sg. gen. ^{GIS} *ḫulugannaš*, abl. ^{GIS} *ḫuluganna-* to ^{GIS} *ḫuluganni-*), which in OH is a simple *i*-stem without mutation (vgl. auch Ledo-Lemos 2002: 37ff.; Matasović 2004: 36ff).

9 In respect to the lack of a masculine-feminine contrast, the Hittite declension of pronouns and substantives resembles that of nouns such as Latin *fēlis* ‘cat’ and *canis* ‘dog’, which can be masculine or feminine according to the biological gender of the animal referent (Sihler 1995: 244).

10 Tischler 2001: 245.

11 Hoffner & Melchert 2008: 64. Bei Namen verwendet man das Zeichen ^f für ^{MUNUS} (früher oder Silbenwert *šal*).

12 VBoT 58 iv 3 (OH/NS) *ūgg=a* ^{MUNUS} *annannaš ēšmi* ‘und ich bin eine *annanna*-Frau’

- MUNUS *ammama-* 'female cult official'
MUNUS *annati-* 'female cult servant'
MUNUS *ankuwarnu-* 'female cult official'
MUNUS *azinna-* 'female official of the cult of the goddess Ištar'
MUNUS *entanni-* 'female official of a ritual'
MUNUS *eši-* 'female official, courtesan?' (Luwian in Hittite context)
MUNUS *haḥḥallalla-* 'female official' (Luwian in Hittite context)
MUNUS *hašawa-* 'old woman, female magician' (kind of priestess) (MUNUSŠU.GI)
MUNUS *hulpa-* 'female official'
MUNUS *hupigala-* 'female official'
MUNUS *išli-* 'female official of a cult'
MUNUS *ištaḥḥatalla* 'female official of a cult, female food taster?'
MUNUS *iwant-* 'female cult official'
MUNUS *kankatitalla-* 'woman, who serves *kankati*-soup'
MUNUS *katra-* (*katri-*) 'female musician'
MUNUS *manaḥuerata-* 'female cult official'
MUNUS *šatuḥi-* 'female cult official'
MUNUS *šilalluḥi-* 'female official in a Hurrian-Hittite ritual'
MUNUS *daniti-* 'high priestess?'
MUNUS *taptara-* 'woman of a death ritual, wailer?'
MUNUS *tarpašgana-* 'female official'
MUNUS *tešant-* 'female official'
MUNUS *wašummaniyauli-* 'female official of a ritual' (Luwian in Hittite context) female musician'
MUNUS *zintuḥi-* (*zintuḥiya-*) 'female official, female singer'

Terms for people that have a determiner for 'man' as well as for 'woman' are of special interest:

- (7) LÜ/MUNUS *allawant[i]-* '(female) official'
LÜ/MUNUS *arkamiyala-* 'player of the *arkammi*-instrument'
LÜ/MUNUS *arzanala-* '(female) cult official'
LÜ/MUNUS *harwant-* '(female) guard' (LÜ/MUNUSÜMMEDA?)
LÜ/MUNUS *ḥuwaššanalla/i-* 'worshipper of ^d*Ḥuwaššana*'
LÜ/MUNUS *išpunalla-* '(female) cult official'
LÜ/MUNUS *dammara-* 'low female cult servant', rarely, low cult servant' (Luwian in Hittite context)
LÜ/MUNUS *tapritašši-* 'officials, who are concerned with the ^{GIS}*tapri-*'
LÜ/MUNUS *urayanni-* (*uriyanni-*) 'high (female) official'
LÜ *wawi-* 'official', MUNUS *uwauwa-* 'female official'

All of these nouns are *Communia*. But which semantic type of people term applies for (7)? If we first have a look at people terms with determinative ^{LÜ}, i.e. words like ^{LÜ}*wawi-* 'official', then we can find a so-called *GENERICUM*. In German words like *commandant* (*Kommandant*) belong to this group. Eisenberg (2000: 93) uses following classification with M for masculine and F for feminine:

(8)		NEUT	FEM	REMAINING MASC	GENERICUM
	M	-	-	+	+
	F	-	+	-	+ ¹³

The GENERICUM unites two characteristics in (8): masculine and feminine. The classification can be compared to the main word classes according to the features [+/-S] (= substantivity) and [+/-V] (= verbalism), where one word class, the adjective, also possesses two features:

(9)		PRONOUN	VERB	SUBSTANTIVE	ADJECTIVE
	S	-	-	+	+
	V	-	+	-	+

Nouns that come within the GENERICUM have two usages: On the one hand they specifically characterise men:

(10)(a) Still male doctors earn more than their female counterparts. (Noch immer verdienen Ärzte mehr als Ärztinnen.)

On the other hand they are applied to women and men in a generalising way, especially in plural.

(10)(b) Some politicians are of the opinion that doctors earn too much. (Einige Politiker meinen, Ärzte verdienen zu viel.)

In the second case the nouns specialise in gender-neutral people terms. The GENERICUM, a masculine, stands for the so-called perceived natural gender here. That means: 'If the person is perceived as referent and at the same time is not distinguished regarding the natural gender the masculine gender assignment ensues.'¹⁴ The generic use in present-day German has often been criticised for making it seem as if women were not meant as well. Pair formulae are the consequence:

(11)(a) Studenten und Studentinnen
or:

13 Manfred Bierwisch (1998:93) established the following feature specification for gender systems with three genera:

	MASC	NEUT	FEM
N	-	+	-
F	-	-	+

The masculine is considered as an unmarked category and is understood with the aid of the features [+/-N] (= neutrality) and [+/-F] (femininity). One has to agree with Eisenberg (2000: 93) that the relation between neuter and feminine remains unclear. Why is neuter more marked than feminine?

14 Köpke & Zubin 1996: 481.

(11)(b) StudentInnen¹⁵

Therefore, the GENERICUM differs from the REMAINING MASCULINE. This genus consists of masculines from which the GENERICUM is separated, German *Tisch*, *Stuhl*. But as *Studentin* (female student) shows, the typical GENERICUM may entail feminine motion. Exactly this kind of feminine is indicated by the nouns with the determinative ^{MUNUS} in Hittite, e.g. ^{MUNUS}*tapritašši-* 'female official, who is concerned with the ^{GIS}*tapri-*' besides ^{LÜ}*tapritašši-*.

To sum this up: Hittite shows that the GENERICUM, as a gender underspecified people term, is an instance of the language system where the need for a special gender marker of the Sexus femininum can arise. If a language has three genera like German the GENERICUM is a masculine, if it has two genera like Commune and neuter in Hittite the GENERICUM is Commune.

2.1.2. Suffix

Hittite makes a second matter apparent. Like in other Old Indo-European languages the Sexus femininum can also be indicated by a suffix. In this way the suffix *-(š)šara-*¹⁶ serves as an derivation for terms for female human or divine entities. It makes a distinction between *ḥaššuš* 'king' and *ḥaššuššaraš* 'queen', *išḥaš* 'lord' and *išḥaššaraš* 'lady', *šuppiš* 'holy/consecrated man' and *šuppeššaraš* 'virgin' possible and is the basis of the Sumerian word GÉME 'female slave' (compared to ÌR 'male slave'). Cf.:

(12)(a) KUB 31.4 + KBo 3.41 6 restored from KBo 13.78 obv. 5.

[(ÌR-na)]*n=ašta* GÉME-*šan natta kuelka dahhun*
'I took no one's [male slave] (or) female slave'

(12)(b) cf. also Luwian *nan-i-š* 'brother' and *nan-ašr-i-š* 'sister' (*-ašr-*) (to Luwian **ašr(i)-* cf. the derivatives *ašrahit-* 'femininity', *ašrul(i)-* 'female, feminine')¹⁷ or the Luwian derivational suffix *-wiya-*, *-wašha-* in onomastics¹⁸

3. Collective

Research into the development of the Genus femininum usually focuses on the role of the collective. Hittite also has this phenomenon directly next to terms of the Sexus femininum According to Oettinger (1995: 214) these are:

(13)(a) collective D(INGIR) *kuwanšaya* (< **kuwansāi*) and nominative plural commune D(INGIR) *kuwanšeš* 'female deities' (to Hitt. *kuenn-* 'woman')

(13)(b) collective nom./acc. ^{MUNUS.MEŠ}*ha-az-ka₄-ra-ri* 'girls orchestra, group of female drum musicians'¹⁹ and commune ^{MUNUS}*hazgara-* 'girl in temple service'

15 Gallmann 2006: 156.

16 This suffix is connected with IE **t(r)i-sor-es* f. 'three', **s₂ésōr* 'sister'.

17 The Hittite word for 'woman', however, reflects the PIE root **g^wen-*, as does Luwian *wanati-* (see Starke 1980).

18 Zehnder 2009: 63, 70 (to *-wiya-* as hypocoristic shortening of *wanatti-* 'woman'), 90.

A Commune like ^{MUNUS} *hazgara-* is exactly that type of term for female entities belonging to a GENERICUM. The collective, however, is semantically animate, referring only to persons, but as a collective is grammatically neuter²⁰.

2.1.4. Pronominal reference

A pronominal reference that shows agreement with the Sexus femininum, as one would most likely expect it from the demonstrative pronouns *ka-* 'this' and *apa-* 'that', does not exist in Hittite.

Contrary to common belief²¹ the pronouns do not have to have been the driving force behind the development of the Genus femininum by all means. This has to be taken into consideration when we now turn to the Genus femininum in Graeco-Aryan.

3. Old Indic

Therefore, let us look for GENERICA and corresponding feminines. From synchronic perspective primarily the productive inflection types and word formation patterns come into question in Old Indic. However, the substantival *a-* and *ā-* stems in the RV are no candidates for this²². At best one can find animal terms that could point to a GENERICUM:

(14)(a) <i>ajā-</i> 'he-goat'	<i>aj-ā-</i> 'goat'
<i>āśva-</i> 'horse'	<i>āśv-ā-</i> 'mare'

The plural form of 'he-goat' is especially used for the he-goats as the team of the Pūṣan²³. Female animals could be included:

(15) RV 6,55,6
*ājāsah pūśānam rāthe niṣṭmbhṛās tē janaśriyam /
 devām vahantu bibhrataḥ*

'Die stolzierenden(?) Böcke sollen herfahren, zu Wagen den Gott Pūṣan bringend, durch welchen die Leute zu Ehren kommen.' (Geldner) ('The parading bucks are supposed to drive up, bringing the god Pūṣan by cart, by which people attain honours'.)

In one instance in the RV the feminine *ajā-* clearly indicates the Sexus femininum:

(16) RV 8,70,15
*karnagṛhyā maghāvā śauradevyó vatsām nas tribhyá ānayat /
 ajām sūrīr ná dhātave*

'Der freigebige Sohn des Śūradeva führte uns dreien ein Kalb zu, an den Ohren es packend, wie eine Geiß (den drei Zicklein), um daran zu saugen, der noble Herr.' (Geldner) ('The generous

19 Cf. Rieken 2004: 535, 540.

20 Hoffner 1998: 37ff.

21 E.g. Tichy 1993: 11ff.

22 Concerning the function of *-ah₂ in Hittite and PIE as an 'individualizing' Suffix cf. Melchert 2011; 2012.

23 Hence, it is an unambiguous reference. For semantic definites cf. Loebner 1985.

son of Śūrādeva gave us three a calf, grabbing it at its ears like a she-goat (the three kids), to suck on it, the noble lord.)

It seems that the masculine plural of *ásva-* ‘horse’ in (17) is also used generically:

(17) RV 1,114,8

má nas toké tánaye má na āyaú má no gósu má no ášveṣu rīriṣaḥ

‘Nicht sollst du uns an dem leiblichen Samen, nicht an unsrem (eigenen) Leben, nicht an unseren Kühen und Pferden schädigen.’ (Geldner) (‘You shall not harm our fleshly seeds, not our (own) lives, not our cows and horses.’)

This includes the Sexus femininum indicating *ásvā-* ‘mare’, e.g. regarding Uṣas:

(18) RV 1,30,21

vayāṃ hi te āmanmahy āntād ā parākāt / ášve ná citre aruṣi

‘Denn wir haben nah und fern deiner gedacht, du wie eine Stute Prangende, Röttliche.’ (Geldner) (‘Because we commemorated you near and far, you like a mare parading, reddish.’)

Probably there are so few *a-* and *ā-*stems in the RV as terms of natural gender masculine and feminine because the formantia *-a-* and *-ā-* were not used as means of word formation anymore in Old Indic but as indicators of inflection and agreement markers for pronouns and adjectives. How this could have taken place has been dealt with manifold. Concerning the assumption of substantival *ā-*stems as a starting point of the development of the Genus femininum the reference to Modern High German *Stute* ‘female horse’, which dates back to the collective Old High German *stuot* ‘herd of horses’, is often compared²⁴. Indeed, there may be a connection between the terms for female entities, that belong to a GENERICUM, as the mentioned Hittite collective ^{MUNUS.MES}*ha-az-ka₄-ra-ri* ‘girls orchestra, group of female drum musicians’ and the Commune ^{MUNUS}*hazgara-* ‘girls on temple service’ show. If this comparison is valid, the development of agreement in Graeco-Aryan for pronominal reference of an individual may have taken place like Tichy (1993) and Zeilfelder (2001:213) illustrated for the demonstrative pronoun **sá-h₃*. However that be²⁵, as soon as there were feminine motion present in the language all words, that were formed in the same way, could be defined as feminines regardless which semantic category they belonged to, thus, object terms as well²⁶, e.g.:

24 For the Graeco-Aryan *ah₃-*stems that term female animals, Litscher (2009: 282f.) describes it in the following way: ‘... in der Haustierhaltung [spielen] die männlichen und die weiblichen Tiere sehr unterschiedliche Rollen ... Die Männchen werden z.B. ... bei Pferden meist einzeln gehalten, die Weibchen hingegen in Gruppen. Daher überrascht es nicht, wenn eine Bezeichnung für eine Gruppe von Tieren zur Bezeichnung eines einzelnen Tieres verwendet wird, damit ... ein einzelnes weibliches Tier gemeint ist.’ (‘...the male and female animals play very different roles when kept as pets ... The male animals are for example ... in the case of horses kept individually, the female animals, however, in groups. Therefore, it does not surprise when a term for a group of animals is used as the term for an individual animal, ... to indicate that it is an individual female animal.’)

25 Cf. Lühr 2012; 2012a.

26 Cf. Hardarson 1987: 86f.

(19) Ved. *chāyā* 'shade', Greek σκιά, Ved. *iṣā* 'shaft', Hitt. *hišša*- 'hitch-pole'²⁷

With the adoption of agreement functions for first pronouns, then for adjectives the formantia *-a-* and *-ā-* do not seem suitable for terming the Sexus femininum in Vedic. Therefore, more obvious word formation elements had to assume this role²⁸.

These are the *vr̥kīh-* and *devī-* formations. The pattern of the *vr̥kīh-* type stands for the female sexuality in nouns that pertain to animate entities, human, devine women as well as animals. The basis is formed by the *a-* stems. One can actually find *GENERICA* here corresponding to terms for the Sexus femininum. There are people terms like:

(20)(a) *ārāyīh* 'female monster' vs. *ārāyā-* 'monster'

(20)(b) RV 8,61,11

nā pāpāso manāmahe nārāyāso nā jālhavaḥ

'Nicht halten wir uns für schlechte Leute noch für karge ..., (Geldner) ('We neither think of ourselves as bad people nor bleak ...')

(20)(c) RV 10,155,2

arāyām brahmaṇas pate tīkṣṇasṅgodṛṣānn ihi

'Geh du, spitzgehörnter Brahmaṇaspati, die Unholdin aufzuspießen!' ('You go, spiky-horned Brahmaṇaspati, to spear the female monster!')

Animal terms like:

(21)(a) *meṣīh* '(female) sheep' vs. *meṣā-* 'ram'

(21)(b) RV 10,91,14

yāsmim āsvāsa ṛṣabhāsa ukṣāṇo vaśā meṣā avasṛṣāsa āhutāḥ

'In welchem Rosse, Stiere, Ochsen, Kühe, Widder (zum Opfer) freigelassen geopfert werden' (adapted from Geldner) ('In which steeds, bulls, oxes, cows, rams freed to be sacrificed (as sacrifice)')

(21)(c) RV 1,43,6

śāṃ naḥ karaty ārvate sugām meṣāya meṣyè / nībhya nāribhya gāve

'Er schaffe Heil unserem Ross, guten Fortgang dem Schafbock und der Schafmutter, den Männern und Frauen, dem Rinde.' (Geldner) ('May he bring well-being to our steed, good progress to the ram and the mother sheep, to the men and women, the cow.')

27 The Suffix **-eh₂* forms exocentric concrete and abstract nouns in Lycian (Melchert 1992; Hajnal 1994) and in limited numbers in Hittite (see Melchert 1994 and Harðarson 1994). There is no basis for assumption of singulatives backformed from inanimate collectives, either directly (Lat. *nauta* 'sailor' < 'crew', as per Balles 2004: 46 following Klingenschmitt) or by addition of **-s* (as per Leukart 1994: 149ff. for Myc. /Krētās/ 'inhabitant of Krete' < Κρητᾶ 'Crete' etc.); cf. Melchert 2012.

28 *sūrya-* m. 'sun god' and *sūryā-* f. 'sun goddess' remain out of consideration because it is a case of individuation. The same applies to derivations of male proper names like *indrāñī-* 'wife of Indra' (to *indra-* name of the god Indra) (Matzinger 2008: 221f.).

The suffix **-ī-* of the *vr̥kīh-* type used to characterise female entities by the underlying noun²⁹. The meaning feature 'affiliation' plays a role here as well as the masculine

(22) Old Indic *rathīh* 'charioteer' as 'the one belonging to the chariot'³⁰

shows. **-ih₂* was probably, following the example of the masculine ending **-os*, provided with **-s* in nominative as an indicator for an animate agent³¹. That means that the GENERICUM on **-os* and the corresponding motion-feminine on **-ih₂-s* became equivalent to each other within the animacy hierarchy.

In comparison, the *devī-* type derived from non-*a*-stems suggests an original abstract word like

(23) Old Indic *śacī* 'strength', *vēpī* 'poetry', Greek φύζα 'escape', Lat. *aciēs* 'sharpness, edge', *maciēs* 'leanness'³²

illustrate. Brugmann (1997: 25f.) already acknowledged this³³. However, it is likely that the relationship between masculine **deīuó-* and the Indo-European feminine **deīuīh₂*, **diuīáh₂-s*

(24) RV *devīm uśāsam*; hom. Ἡὼς ... δῖα

served as a model for further *devī-* formations as motion-formations of *a*-stem masculine *V̥ddhi*-derivations³⁴. Although the exact instance of the reinterpretation of the abstract word to a *Sexus femininum* term cannot be identified anymore there still is the possibility that the path from abstract word to a concrete feminine people term lead to a *Nomen agentis*³⁵; cf. German *Bedienung* (waitress)³⁶. Old Indic *devī-* formations that are adjunct to a GENERICUM are:

(25) Vedic (AV) *bhartrī-* 'female preserver, mother' vs. Vedic *bhartár-* 'preserver'³⁷
śun-ī- 'she-dog' vs. *śván-* 'dog'

The *devī-* type is also used for terming the *Genus femininum* for adjectival simplicia and compounds:

29 Wackernagel & Debrunner 1954: 383; Klingenschmitt 2005: 344.

30 Wackernagel & Debrunner 1954: 408.

31 Cf. Tichy 1993: 6; Krifka 2009.

32 In Baltic the suffix **-ī-* (Lithuanian *marti* 'bride') and the abstract suffix **-ibō* (Old Church Slavonic *-bba*) coalesced into a new abstract suffix: **-ibō* was remodeled to **-ībō*; cf. Lithuanian dialectal *gadryba* 'wisdom' – adjective feminine *gudri* 'wise' (Vaillant 1974: 381). Here, the middle vowel in **-ībō* is identical with that of the inflectional ending of the nominative; cf. Lithuanian adjective *barzdótas* 'bearded' – *barzdà* 'beard' (Lühr 1999: 306f.; but cf. Keydana 2002: 48).

33 Cf. Vogel 1996: 149.

34 Mayerhofer 1992: 744.

35 Eisenberg & Sayatz 2002: 40.

36 At least there is a feminine hereditary word for the motion-feminines to the *Nomina agentis* on *-tar-* or *-tár-*: Old Indic *jánitrī-* 'natural mother', Greek γενέτρα, Lat. *genetrīx* (Tichy 1995: 62).

37 Tichy 1995: 133.

(26) *áruṣī-* ‘reddish; red mare, dawn’ vs. *aruṣá-* ‘reddish’
su-parṇī- ‘beautifully winged’ vs. *su-parṇá-* ‘beautifully winged’

This means the *devī-*formation also stands for terming the agreement with a feminine noun.

One can only find isolated instances of the *vṛkīh-*stems in classical Sanscrit; e.g. *lakṣmīh* ‘goddess of fortune’. The asigmatic nominative prevailed in this language stage³⁸. The *ā-*stems constitute the model here; they became productive in later times for the formation of motion-feminines from *a-*stems; e.g.

(27) ep. *ātmajā-* ‘daughter’ to *ātmaja-* ‘son’³⁹

Occasionally other *i-*suffixes were also applied for indicating the Sexus femininum, e.g. an original diminutive suffix like in:

(28) *mákṣ-* ‘fly’ vs. *mákṣikā-* ‘fly, bee’

Compared to the *i-*containing suffixes⁴⁰ the *ū-*suffixes play a marginal role in connection with the GENERICUM and corresponding feminine, e.g.

(29) *nṛtū-* ‘female dancer’ vs. *nṛtú-* ‘dancer’⁴¹

3. Greek

Greek developed the formation of terms of the Sexus femininum to GENERICA further compared with Old Indic⁴². Thus, there are productive or active word formation elements:

(30)(a) –τρια to Nomina agentis on –τηρ and –τωρ (productive in epic language)

(30)(b) –τρια to Nomina agentis on –τρ- (productive in Attic and Koine)

(30)(c) –τριδ- (active)

(30)(d) –αινα (active in literary Greek, productive in comedy, in Koine)

(30)(f) –εια/ειᾶ (active)

(30)(g) –ιδ- (productive)

(30)(h) –τιδ- (productive)

(30)(i) –αδ- (active)

(30)(j) –ισσα (since Koine productive and also borrowed in Latin)

In Greek the suffix –α/η also belongs to the productive suffixes that form feminines of the Sexus femininum to GENERICA. Possibly this is due to the adjectives being two-ended a lot of the time⁴³. Therefore, the suffix –α/η was not as much committed to agreement as in Old Indic.

38 Wackernagel & Debrunner 1954: 368f.

39 Wackernagel & Debrunner 1954: 239.

40 Cf. also *yosít-* ‘young girl’, *rohít-* ‘reddish mare’, *harít-* ‘yellowish mare’.

41 Matzinger 2008: 226.

42 Balles 2008: 229ff.

43 Kastner 1967.

4. Word class conception

Finally, we need to compare the word class conception of Old Indic and Greek on the one hand and Hittite on the other hand.

4.1. Old Indic, Greek

(31)

LEXICON		GRAMMAR	
---GENERICUM--- ---RESTMASC--- ---NEUTR--- ---FEMIN--- ---adjective/pronoun:			
MASCULINUM	<i>śátru-</i> , <i>agní-</i>	<i>mádhu-</i> ,	<i>dhení-</i> agreement:
-tár-	-εὖς, -τήρ, λόγος, δῆμος	<i>havíṣ-</i> ,	-aná-, -áni-, masc/(fem)/neutr
	-τωρ	-mná-	-á-, -ní-, -tā,
Sexus femininum		δῶρον,	-tāt(i)-
-īh, -ī (-ā)		-μα, -τρον	-της, -iā,
-τεира, -τρια, -τριδ-, -αινα,			-εια/ειā,
-εια/ειā, -ιδ-, -τιδ-, -αδ-			-ίκη, -σις
-ισσα, -α/η			

4.2. Hittite

(32)

LEXICON		GRAMMAR	
---GENERICUM--- ---RESTCOMMUNE--- ---NEUTR--- ---adjective/pronoun:			
COMMUNE	<i>aruna-</i> , <i>lāla-</i> ,	<i>wātar-</i> ,	agreement:
-ala-	<i>išpand-</i>	-war, -eššar,	commune/neutr
		-ātar, -ul, -ur,	
Sexus femininum		-mar, -es, -an,	
MUNUS, -(š)šara-		-ulli, -āli	

For both language groups the GENERICUM is the pole of the anthropocentric continuum, where the typical GENERICUM can develop a motion-feminine. The other pole is taken by the feminine or neuter. These genera show a variety of abstract formations⁴⁴. Sexus femininum and abstractness face each other. Grammar comes into play on a second level when agreement relations are established. These can have a paradigmatic effect like the *a-* and *ā-* stems in Old Indic that were covered at the beginning. However, the derivation of the Sexus femininum from terms that belong to the GENERICUM has got the advantage that – in contrast to individual words like ‘dawn’⁴⁵ or ‘widow’⁴⁶ as a starting point – the motivation for the names can be grasped at once. Like with the Hittite female cult officials these kind of feminines are created when cultural or societal reasons demand it, as for example the German *Bundeskanzlerin* (female chancellor)⁴⁷.

44 For the question why abstract nouns are often feminine cf. Vogel 1996. She distinguishes between masculines like German *Hieb* which are countable, feminines like German *Schönheit* which get countable concrete nouns when pluralized and neuters like German *Lachen*. The feminine is the typical abstract noun here (Brugmann 1897).

45 Fritz 1998.

46 Tichy 1993.

47 Vgl. Neumann 1992: 346.

References

- Balles, I. Zur Rekonstruktion des früh-urindogermanischen Nominalklassensystems. In Hyllested, Adam, Jørgensen, Anders Richardt, Larsson, Jenny Helena & Olander, Thomas (eds.): *Per Aspera ad Asteriscos. Studia Indogermanica in honorem Jens Elmegård Rasmussen sexagenarii Idibus Martiis anno MMIV*. Innsbruck (Innsbrucker Beiträge zur Sprachwissenschaft 112), 2004, 43-57.
- Balles, I. (2004a). Individuativa-Kontinuativa-Unterscheidung im Indogermanischen'. In: Fritz, Matthias & Wischer, Ilse (eds.): *Historisch-Vergleichende Sprachwissenschaft und germanische Sprachen. Akten der 4. Neulandtagung der Historisch-Vergleichenden Sprachwissenschaft in Potsdam 2001*. Innsbruck, 2004, (Innsbrucker Beiträge zur Sprachwissenschaft 113), 9-33.
- Balles, I. Latein, Altgriechisch. In: Lühr 2008.
- Bierwisch, M. Genus: Fakten, Annahmen, Probleme. Handout zum Vortrag am 14.01.1998 im Zentrum für Allgemeine Sprachwissenschaft. Berlin.
- Brugmann, K. (1897). The nature and origin of the noun genders in the Indo-European languages. A lecture delivered on the occasion of the sesquicentennial celebration of the Princeton University. New York.
- Corbett, G. *Gender*. Cambridge UP, 1991.
- Eisenberg, P. Das vierte Genus? Über die natürliche Kategorisation der deutschen Substantive. In: Bittner, Andreas, Bittner, Dagmar & Köpcke, Klaus-Michael (eds.): *Angemessene Strukturen: Systemorganisation in Phonologie, Morphologie und Syntax*. Hildesheim/Zürich/New York, 2000, 91-105.
- Eisenberg, P.; Sayatz, U. Kategorienhierarchie und Genus. Zur Abfolge der Derivationsuffixe im Deutschen. In: *Jahrbuch der ungarischen Germanistik* 2002, 137-156.
- Fritz, M. Die urindogermanischen *s*-Stämme und die Genese des dritten Genus. In: Meid, Wolfgang (ed.): *Sprache und Kultur der Indogermanen. Akten der X. Fachtagung der Indogermanischen Gesellschaft. Innsbruck 22-28. September 1996*. Innsbruck, 1998, 255-264.
- Gallmann, P. Die flektierbaren Wortarten. In: *Duden: Die Grammatik*. Mannheim/Leipzig/Wien/ Zürich (Duden Band 4), 2006, 146-394.
- Gašiorowski, P.; Mickiewicz, A. The origin and development of IE feminine inflections. Handout, *The Sound of Indo-European 2: Phonetics, phonemics, and morphophonemics*. Opava, 2010
- Geldner, K.F. *Der Rig-Veda aus dem Sanskrit ins Deutsche übersetzt und mit einem laufenden Kommentar versehen*. Cambridge (Mass.), 1951.
- Hajnal, I. Die lykischen *a*-Stämme: Zum Werdegang einer Nominalklasse. In: Rasmussen, Jens E. (ed.): *In honorem Holger Pedersen. Kolloquium der Indogermanischen Gesellschaft vom 26. bis 28. März 1993 in Kopenhagen*. Wiesbaden, 1994, 135-71.
- Harðarson, J. A. Zum urindogermanischen Kollektivum. In: *Münchener Studien zur Sprachwissenschaft* 48, 1987, 71-113.
- Harðarson, J.A. Der Verlust zweier wichtiger Flexionskategorien im Uranatolischen. In: *Historische Sprachforschung* 107, 1994, 30-41.
- Hoffner, H.A. From the Disciplines of a Dictionary Editor. In: *Journal of Cuneiform Studies* 50, 1998, 35-44.
- Hoffner, H. A.; Melchert, C. *A Grammar of the Hittite Language. Part. 1: Reference Grammar*. Winona Lake/Indiana, 2008.

- Irslinger, B. Genus und Nominalaspekt. In: *Historische Sprachforschung* 122, 2010, 1-30.
- Jasanoff, J. H. *Hittite and the Indo-European Verb*. Oxford, 2003.
- Kastner, W. *Die griechischen Adjektive zweier Endungen auf -oc*. Heidelberg. 1967.
- Keydana, G. review of Lühr 1999. In: *Kratylos* 47, 2002, 44-51.
- Klingenschmitt, G. ([1992]2005). Die lateinische Nominalflexion. In: Janda, Michael, Lühr, Rosemarie, Matzinger Joachim & Schaffner, Stefan (eds.): Klingenschmitt, Gert: *Aufsätze zur Indogermanistik*. Hamburg, 2005, 301-351.
- Köpcke, K. M.; Zubin, D. Prinzipien für die Genuszuweisung im Deutschen. In: Lang, E.; Zifonun, G. (eds.): *Deutsch typologisch*. Berlin, 1996, 473-491.
- Krifka, M. Case Syncretism in German Feminines: Typological, Functional and Structural Aspects. In Steinkrüger, P.; Krifka, M. (eds.): *On Inflection*. Berlin, 2009, 141-172.
- Ledo-Lemos, F.J. *La palabra 'mujer'*. Freiburg (Lincom Studies in Indo-European Linguistics 20), 2002.
- Leukart, A. *Die frühgriechischen Nomina auf -tās und -ās. Untersuchungen zu ihrer Herkunft und Ausbreitung (unter Vergleich mit den Nomina auf -eūs)*. Vienna, 1994.
- Litscher, R. Die Genese des dritten Genus: ein neuer Versuch. In: Lühr, R.; Ziegler, S. (eds.): *Protolanguage and Prehistory. Akten der XII. Fachtagung der Indogermanischen Gesellschaft, vom 11. bis 15. Oktober 2004 in Krakau*. Wiesbaden, 2009, 271-283.
- Loebner, S. Definites. In: *Journal of Semantics* 4, 1985, 279-326.
- Lühr, R. Analogische ‚formae difficiliores. Analogie und innerparadigmatischer Ausgleich bei den *a*-Stämmen im Indoiranischen‘. In: *Historische Sprachforschung* 104, 1991, 170-185.
- Lühr, R. Zum Sekundärwortschatz des Baltischen: Alte und neue feminine Abstraktbildungen. In: Eggers, E.; Becker, J.; Udolph, J.; Weber, D. (eds.): *Florilegium Linguisticum. Festschrift für W. P. Schmid zum 70. Geburtstag*. Frankfurt a. Main, 1999, 300-312.
- Lühr, R. Case, Gender and Number Underspecification in the oldest Indo-European languages. In: Nowak, E. (ed.): *Morphology in Comparison*. Berlin (Arbeitspapiere zur Linguistik 37), 2002, 102-143.
- Lühr, R. Wortartwechsel in altindogermanischen Sprachen. In: Tichy, E.; Wodtko, D. S.; Irslinger, B. *Indogermanisches Nomen. Derivation, Flexion und Ablaut. Akten der Arbeitstagung der Indogermanischen Gesellschaft, Freiburg, 19. bis 22. September 2001*. Bremen, 2003, 115-127.
- Lühr, R. Zur Emergenz von *ā*-Motion und Kongruenz im Indogermanischen. In Neri, S.; Schuhmann, R. (eds.): *Kollektivum und Femininum. Flexion oder Wortbildung*. Leiden, 2012.
- Lühr, R. (2012a). Zur Versprachlichung des Frauenbildes in indogermanischen Sprachen. In: Meiser, Gerhard (ed.): *Das Menschenbild bei den Indogermanen*. Bremen, 2012.
- Lühr, R. (ed.) (2008) (2008a): *Nominale Wortbildung des Indogermanischen in Grundzügen. Die Wortbildungsmuster ausgewählter indogermanischer Einzelsprachen*. Bd. 1. 2. Hamburg, 2008.
- Matzinger, J. Hethitisch, Altindisch, Altarmenisch. In: Lühr 2008.
- Rieken, E. Der Wechsel *-a/-i-* in der Stammbildung des hethitischen Nomens. In: *Historische Sprachforschung* 107, 1994, 42-53.
- Matasović, R. *Gender in Indo-European*. Heidelberg, 2004.
- Mayrhofer, M. *Etymologisches Wörterbuch des Altindischen*. Bd. 1. Heidelberg. 1992.
- Meier-Brügger, M. *Indogermanische Sprachwissenschaft*. ⁹Berlin, 2010.
- Melchert, H. C. Relative Chronology and Anatolian: the Vowel System. In: Beckes, R. S. P., Lubotsky, A.; Weitenberg, J. J. St. (eds.): *Rekonstruktion und Relative Chronologie. Akten*

- der VIII. Fachtagung der Indogermanischen Gesellschaft. Leiden 31.8. – 4.9.1987. Innsbruck (Innsbrucker Beiträge zur Sprachwissenschaft 65), 1992, 41-53.
- Melchert, H. C. The Feminine Gender in Anatolian. In: Dunkel, G.; Meyer, G.; Scarlata, S. (eds.): *Früh-, Mittel- Spätindogermanisch. Akten der IX. Fachtagung der Indogermanischen Gesellschaft vom 5. bis 9. Oktober 1992 in Zürich*. Wiesbaden, 1994, 231-244.
- Melchert, H. C. The PIE Collective Plural and the τὰ ζῶα τρέχει rule. In: Krisch, T.; Lindner, T. (eds.): *Historischer Sprachvergleich und linguistische Theorie: Indogermanistik und allgemeine Sprachwissenschaft im Dialog. Akten der XIII. Fachtagung der Indogermanischen Gesellschaft. Salzburg, 21-27. September 2008*. Wiesbaden, 2011, 395-400.
- Melchert, H. C. PIE *-eh₂ as an 'individualizing' Suffix and the Feminine Gender. In: Neri, S.; Schuhmann, R. (eds.) *In memory of Johannes Schmidt: Collective and Feminine: Inflection or Word Formation?* Leiden, 2012.
- Neu, E. Review of Kastner 1967. In: *Indogermanische Forschungen* 74, 1969, 235-241.
- Neumann, G. Mann und Frau – Frau und Mann. Hintergründe, Ursachen und Problematik der Geschlechterrollen. In: Böhm, W.; Lindauer, M. (eds.) *Fünftes Würzburger Symposium der Universität Würzburg*. Stuttgart, 1992, 336-352.
- Oettinger, N. Bemerkungen zur anatolischen *i*-Motion und Genusfrage. In: *Historische Sprachforschung* 100, 1987, 35-43.
- Oettinger, N. Griech. ὄστρεόν, heth. *kulēi* und ein neues Kollektivsuffix. In: Hettrich, H.; Hock, W.; Mumm, P.-A.; Oettinger, N. (eds.) *Verba et structurae: Festschrift für Klaus Strunk zum 65. Geburtstag*. Innsbruck, 1995, 211-228.
- Rieken, E. Merkwürdige Kasusformen im Hethitischen. In: Groddek, D.; Röbke, S. (eds.) *Šarnikzel: Hethitologische Studien zum Gedenken an Emil Orgetorix Forrer*. Dresden, 2004, 533-543.
- Sihler, A. L. *New Comparative Grammar of Greek and Latin*. New York: Oxford, 1995.
- Starke, F. *Untersuchung zur Stammbildung des keilschrift-luwischen Nomens*. Wiesbaden (Studien zu den Boğazkoy-Texten 31), 1990.
- Tichy, E. Kollektiva, Genus femininum und relative Chronologie im Indogermanischen. In: *Historische Sprachforschung* 106, 1993, 1-19.
- Tichy, E. *Die Nomina agentis auf -tar- im Vedischen*. Heidelberg, 1995.
- Tischler, J. *Hethitisches Handwörterbuch. Mit dem Wortschatz der Nachbarsprachen*. Innsbruck (Innsbrucker Beiträge zur Sprachwissenschaft 102), 2001.
- Wackernagel, J.; Debrunner, A. *Altindische Grammatik*. Bd. II.2: *Die Nominalsuffixe*. Göttingen.
- Vaillant, A. *Grammaire comparée des langues slaves*. IV. *La formation des noms*. Paris, 1974.
- Vogel, P. M. *Wortarten und Wortartwechsel. Zu Konversion und verwandten Erscheinungen im Deutschen und in anderen Sprachen*. Berlin/New York (Studia Linguistica Germanica 39), 1996.
- Wiese, B. Zur Systematisierung der Schwankungen zwischen starker und schwacher Adjektivflexion nach Pronominaladjektiven. Ms., Mannheim: IDS., 2004.
- Wunderlich, D.; Fabri, R. Minimalist Morphology: An Approach to Inflection. In: *Zeitschrift für Sprachwissenschaft* 14, 1995, 236-294.
- Zehnder, T. Anatolisch. In: Stüber, K.; Zehnder, T.; Remmer, U. *Indogermanische Frauennamen*. Heidelberg, 2009, 57-99.
- Zeilfelder, S. *Archaismus und Ausgliederung. Studien zur sprachlichen Stellung des Hethitischen*. Heidelberg, 2001.