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Collective and Feminine in Tocharian.

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COLLECTIVE AND FEMININE IN TOCHARIAN*

1. The morphological markers of the Indo-European feminine gender arose from a word-formation suffix with collective meaning $*-h_2$ and various derivatives formed with it, including thematic $*-e-h_2$ and athematic $*-i-h_2$. This insight goes back to Johannes SCHMIDT and was later substantiated in many ways by advances in the reconstruction of Proto-Indo-European nominal morphology, most notably NUSSBAUM 1986 and HARDARSON 1987a, b. The origin of the collective morpheme $*-h_2$ is hinted at by a wealth of traces of the pre-inflectional, purely word-formational use of $*-h_2$, which survive into the individual Indo-European languages. The evidence includes the placement of $*-h_2$ - before derivational suffixes in complex formations and before inflectional endings, which accords with the usual behavior of derivational morphemes, cf. e.g.

PIE $*k^w e-h_2-nt-o-$ > Lat. *quantus*; PIE $*te-h_2-nt-o-$ > Lat. *tantus*; PIE $*k^w i-h_2 \Rightarrow *k^w i-h_2-ent-$ > Skt. *kíyant-* (SIMS-WILLIAMS 1997: 318);
 PIE $*\tilde{k}er-h_2 \Rightarrow *\tilde{k}er-h_2-s- \Rightarrow *\tilde{k}er-h_2-s-ro- \Rightarrow *\tilde{k}er-h_2-s-re-h_2$ > Lat. *cerebra* ‘brains’ (for the semantics cf. Germ. *Gehirn*);
 PIE $*dru-h_2$ ‘wood’ \Rightarrow singulative $*dru-h_2-s$ ‘single tree’ > Gk. $\delta\rho\upsilon\varsigma$ (BALLES 2004a: 46, NIKOLAEV 2010a: 192; on the derivation of singulative formations cf. LEUKART 1994: 153f.).

Also pointing in the same direction is the functional restriction of the collective suffix to indicating collectivity, with no implication of grammatical gender or number. Originally, h_2 -collectives were independent of gender (a) and could subsequently be associated both with masculine (b) and with neuter (c) o -stems (SCHMIDT 1889: 5, WIDMER 2006: 439f.).

* This article evolved out of a paper which was presented to the 28th East Coast Indo-European Conference held at the Háskóli Íslands, Reykjavík, on June 13, 2009. The basic insights concerning the etymological identification of the Tocharian agent-noun suffixes B *-tsa/-ca*, *-ntsa/-ñca*, *-nta* and vocative/oblique B *-ñcai*, *-cai* were presented on the handout circulated at that conference. I’m happy to acknowledge that G. J. PINAULT reached some basic insights and similar results independently in a lecture presented in July 2009, which may be taken as a confirmation of the basic results of both our papers, cf. this volume pp. 180f. on B *-eñca*, A *-ant*, pp. 187f. on B *aknātsa*.

a) PIE masculine <i>*u₁h₁ros</i> 'endowed with strength, virile' (Toch. A <i>wir</i> , Lat. <i>vir</i>)	(count) plural <i>*u₁h₁rōs</i> collective <i>*u₁h₁reh₂</i> 'group of men' (Umbr. <i>ueiro</i> , MEISER 1986: 118)
b) PIE <i>*k^wek^wlh₁os</i> 'circle, wheel'	(count) plural <i>*k^wek^wlh₁ōs</i> '(single) wheels'
c) PIE neuter <i>*k^wek^wlh₁om</i>	(count & collective) plural ← collective <i>*k^wek^wlh₁éh₂</i> 'set of wheels, chariot'
PIE neuter <i>*iugom</i> 'yoke'	(count & collective) plural ← collective <i>*iugeh₂</i> '(single) yokes; set of yokes'

(Cf. HARÐARSON 1987a: 78f. Note that Vedic *cakra-* is normally neuter, like Proto-Germanic **χ^weχ^wla-*, and only rarely masculine, see KLEIN 1992: 141.)

h₂-collectives were also indifferent to number, being assignable to either singular or plural depending on the semantic category of the noun in question. Whereas mass nouns are prone to be assigned to the singular (a), numerals and count nouns prefer an assignment to the plural (b):

- a) PIE **uédor-h₂* 'aggregate of water, Gewässer' > **uédōr* 'water' (HARÐARSON 1987a: 89, 91); but plural meaning 'waters' is also attested (RAU 2009: 39);
- b) PIE **tri-h₂ dékom-t* (Hackstein 2010: 61) → doubly marked collective **tri-h₂ dékom-t-h₂* 'three decads' (RAU 2009: 16, 48).

Likewise uncontested is the origin of the feminine in the collective, given the partial homophony of collective and feminine morphemes. The feminine preserves morphological traces of its collective origin in the feminine nominative/accusative dual ending **-eh₂-ih₁* (Lat. *duae*, OCS *dŭvě*), which takes the neuter dual marker **-ih₁* (cf. *o*-stem neuter nominative/accusative dual **-o-ih₁*; COWGILL apud NUSSBAUM 1986: 132 n. 59, TICHY 1993: 12f. and 2000: 70). Nonetheless, the precise motivation for and pathway of development leading from the collective to the feminine has remained controversial. Whatever their ultimate connection, it seems reasonably clear that the association of the notion of collectivity and feminine grammatical gender must be governed by a language-independent mechanism, because even collective formations of post-PIE date that arose within the individual IE languages show subsequent gender assignment to the feminine, cf. Latin collective neuter plural *gaudia* > French feminine singular *joie*. (One could argue, as R. KIM reminds me, that this is merely morphologically governed, i.e. a (reanalyzed) noun in *-a* is automatically assigned feminine gender. The fact, however, that the given

transition is typically found with abstract nouns and nouns denoting natural aggregates suggests that while the phonological identity of the two morphemes may have been facultative, the development was semantically driven, see RHEINFELDER 1967: 27f. for an instructive collection of cases.)

2. Despite general agreement on the original word-formational status of the collective and its relation to the feminine gender, the flow of articles devoted to the evolution of the feminine from the collective has not ceased. Much of the debate concerns the factors which promoted the emergence of feminine gender. Were certain constructions pivotal for the conversion of the collective noun class into nouns of feminine gender, e.g. syntactic conversion of collective-abstract nouns into adjectives (HARÐARSON 1987)? Or did particular lexemes play a decisive role, e.g. the PIE word for ‘woman’ as in Gk. γυνή, Skt. *gnā-* (BRUGMANN apud WACKERNAGEL 1928: 43) or the PIE collective **uidʰeyeh₂* ‘females left behind by a warrior killed in battle’, subsequently specialized in usage to denote a single member of the group, i.e. a widow (TICHY 1993)?

In Tocharian, the development of the collective morpheme **-h₂* into a marker of feminine gender is not as far evolved as in the other Indo-European languages. This makes Tocharian an especially interesting candidate for examining the transition from the collective to the feminine and determining the precise steps involved. Before discussing the Tocharian evidence, however, it will be useful to recall some well-documented pathways of development, attested outside Tocharian, which illustrate the tendency of collective-abstracts to turn into animate agent nouns with subsequent restriction to either male or (more systematically) female reference.

3. From abstract-collective to animate

3.1 Sociological saliency of group affiliation and meronymic whole-part relation

The crucial question is how to account for the functional extension of the collective to denote female sex. In this context, linguists have frequently called attention to the use of collectives to refer to individual females. For instance, HARÐARSON (1987b: 123, 126) adduced instances of collectives as denotations of individual females. Note however that German *Frauenzimmer* is not a valid example of such a collective; rather it exemplifies the metonymic shift from ‘(day) room for women’ to ‘women’ and finally ‘single woman’ (KLUGE & SEEBOLD 1989: 230). In a similar vein, TICHY (1993: 10f.) stated that „Die Umdeutung einer Gruppenbezeichnung zur Bezeichnung einer einzelnen Frau war beispielsweise im Kontext von Possessivverhältnissen möglich, vgl. etwa dt. *Herr X und Anhang*.“ Pointing out instances like the foregoing, however, only restates the phenomenon to be explained—the use of collectives to denote females—instead of explaining it.

A promising explanation for the proclivity of collectives to signify female sex is based on the sociological perception of females as family members. A number of ancient Indo-European (and non-Indo-European) cultures attest to the practice of identifying and addressing women not primarily as individuals, but by their family affiliation. Conversely, then, it was the family affiliation that could be used to metonymically refer to and identify a particular female being. For females, the family affiliation was so prominent as to become a distinguishing mark in the identification of individual feminine family members. This correspondence between sociology and linguistic expression has left its trace in the onomastic systems of some Indo-European languages. An example is furnished by Ancient Italic: “Frauen hatten in den Gemeinwesen Zentralitaliens kein Bürgerrecht. Darum benutzten in Rom Frauen – Freigeborene wie Freigelassene – grundsätzlich die Namenformel der Männer, jedoch ohne Tribusangabe und normalerweise auch ohne Pränomen ... Die Tochter des Königs Servius Tullius wird in der Überlieferung stets nur mit dem Gentile Tullia zitiert” (RIX 1995: 726; cf. WACKERNAGEL 1912: 26, STÜBER 2009: 224ff.). Similarly in Greek, men are usually addressed by their name(s), while women tend not to be addressed by name but by the generic ὄ γύναι ‘o woman!’ (WACKERNAGEL 1912: 26).

The collective-based perception of females is further reflected by etymological evidence. The latter includes the secure reconstruction of a collective **uid^heu-eh₂* ‘family of the slain (warrior)’, whose morphological derivation was clarified by TICHY (1993: 15f.): PIE **uid^h-* ‘slay’ ⇒ PIE **uid^h-u-* ‘slain (warrior)’ ⇒ vr̥ddhi-derivative **uid^heu-o-* ‘akin to the slain (warrior)’ ⇒ collective **uid^heu-eh₂* ‘family of the slain (warrior)’. This formation exemplifies a sociological frame for Proto-Indo-European which assigns greater prominence to the group affiliation of females than to their individuality. Later, in the individual languages, the PIE lexeme **uid^heu-eh₂* lost its collective semantics and took on the meaning ‘widow’ (Lat. *vidua*, Engl. *widow*). Another example is the Ancient Greek opposition of male ἀκοίτης (agent noun in -ης, thus ‘the one performing cohabitation’) and female ἄκοιτις (abstract-derived singulative formation, ‘the one endowed with cohabitation’), which by their derivational morphology convey the sociological notion of male agentivity while assigning a patient-like role to females.

In general, the semantic shift from family to single family member is so natural that it recurs time and again in linguistic history. A straightforward example is offered by Lat. *familia* ‘family, entirety of household members’, which by regular sound-change yields Romanian *femeie* ‘woman’: Latin *fāmilīā* [fāmilijā] > [fāmiljā] > Romanian [fēmĕlĕ] <*femeie*> (MEYER-LÜBKE 1935: 3180, PUȘCARIU 1975: 595).

The propensity of females to act as gregarious animals, while male animals tend to keep separate, recurs in the ethological characteristics of cattle, cf. LITSCHER

(2009: 283): “Entscheidend für die Korrelation dieser Klasse [Kollektivum] mit dem femininen Sexus war dabei unter anderem der Umstand, dass in der Haustierhaltung die männlichen und die weiblichen Tiere sehr unterschiedliche Rollen spielten: Die Männchen werden z.B. bei Kühen und Pferden meist einzeln gehalten, die Weibchen hingegen in Gruppen.” Again, there is etymological evidence to corroborate this. For instance, PIE **steh₂d^h-om, -eh₂* originally denoted ‘stable, staying place of the herd’, and underwent a metonymic shift to the animals themselves (LÜHR 2000: 326). In Slavic, the neuter nouns OCS *stado* n., Russ. *stado* ‘herd’ contain no specification of the herd animals. In Germanic, by contrast, the noun was specialized to denote a ‘herd of horses’ (Proto-Germanic **stōdom, *stōdō-*) without specification of gender, and this meaning is preserved in Old and Middle High German *stuot* and Old English neuter *stōð*, Engl. *stud*. Eventually, however, since horse herds frequently were herds of brood mares, the meaning of the German noun was narrowed down to ‘herds of mares’, attested sporadically from the end of the fourteenth century. Early Modern German *stute* went one step further in the metonymic shift from ‘herd of brood mares’ to ‘single mare.’ The history of English *stud* shares the semantic development from ‘establishment in which stallions and mares are kept for breeding’ to ‘stallions and mares kept in such an establishment’. Furthermore, ME *stude*, English *stud* is also attested in fifteenth and sixteenth century English in the meaning ‘a mare kept for breeding’, apparently short for *stud-mare* (OED s.v. *stud* 4a). Note that by contrast, American English went the opposite direction in specializing the meaning of *stud* to ‘stallion’, apparently a shortened form of *stud-horse* (OED s.v. *stud* 4b, D. Gunkel, p.c.). This nicely bears out our observation that the collective-based designation of females is neither driven by logical necessity nor reflects any inner-linguistic bias, but depends on language- and society-specific conventions.

Another instructive example is Latin *familia* ‘members of a household, wife, children, slaves’, whose meaning was later narrowed down to ‘woman’ (Romanian *femeie*) or ‘child’ (Albanian *fëmijë* ‘child’, cf. MATZINGER 2006: 83f.). This example demonstrates that the Romanian development of ‘family’ to ‘female’ reflects just one possible option, which prevailed for purely extralinguistic reasons. In addition, Albanian *fëmijë* shows that the gender selection of a collective noun like *familia* upon its concretization is essentially open, allowing for both male and female referents, cf. e.g. Albanian *fëmijë i mirë* (masc.) ‘good boy’, *fëmijë e mirë* ‘good girl’.

Examples like the foregoing show that using the morphological category of the collective to denote female sex potentially reflects certain well-attested ethological and sociological frames. In this context, however, it is important to note that underspecification in the denotation of female individuals certainly does not reflect a built-in linguistic bias. After all, referring to individuals by their affiliated group and

sociological institution is by no means confined to female beings, but occurs with female and male beings alike.

The gender association of abstracts and collectives upon their individualization is not a priori fixed, but rather depends on the sociological conventions chosen by a particular community, and thus on communicative relevance. In keeping with this, and as we shall see further below, Tocharian still shows the gender-indifferent use of agent-noun suffixes that came to be restricted to masculine or feminine reference in many other branches of Indo-European.

(Communicative relevance as a factor influencing the linguistic specification or underspecification of natural sex was already noted by Varro *L. L.* 9.56, who mentioned in passing that the distinction between female and male sex remains unspecified in generic animal names unless communicatively relevant.)

3.2 From collective-abstract *-eh₂ to gender-nonspecific agent-noun suffix

In Proto-Indo-European, the collective-abstract morpheme *-eh₂ is commonly employed as an agent-noun suffix, as noted already by MEILLET (1930-31: 6): “Quant aux thèmes en -ā-, la comparaison du latin, du grec, du baltique, du slave et de l’arménien a montré que des noms d’agent désignant des hommes appartiennent normalement à ce type.” The agentive function of collective *-eh₂ most likely arose through the propensity of collective-abstract nouns to denote animate beings, particularly in cases where more communicative weight was attached to the activity and profession of an individual being than to its individuality. Instructive examples are the following.

Collective and abstract ⇒ individual person	Examples
family ⇒ family member	Latin <i>familia</i> > Romanian <i>femeie</i> ‘woman’
age group ⇒ member of age group	Engl. <i>youth</i> ⇒ ‘young individual’, Russ. <i>starina</i> ‘antiquity’ and ‘old man’
action ⇒ performer of an action	OCS <i>sluga</i> ‘service’ ⇒ ‘servant’ Latin <i>auriga</i> ‘guidance of the reins’ ⇒ ‘charioteer’ Greek φουγή ‘wild flight’, Latin <i>fuga</i> ‘flight’ and ‘those who flee, fugitives’, e.g. <i>plane fugae merae</i> ‘truly pure cowards’ (Petron. 45)

profession ⇒ single professional	Latin <i>militia</i> ‘military service’, ‘soldiers collectively’, <i>militia equestris</i> ‘cavalry officer’ (for attestations see below §6.2)
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Cases like these show that under the communicative prominence of agentivity, collective-abstract nouns in **-eh₂* could begin to denote animate beings. This eventually led to the reanalysis of the collective-abstract suffix **-eh₂* as an animate agent-noun suffix.

In this respect, two morphological characteristics of the animate agentive suffix **-eh₂* are worth noting. First, it bears the potential to denote either female or male referents. Second, it is predominantly substantival, but if used predicatively, it betrays a tendency to undergo adjectival conversion.

The semantic and functional changes described above do not always entail the substitution of meanings, but frequently lead to polysemy in the functional array of the collective-abstract suffix and the collective-abstract formation to a given nominal base, covering the entire breadth of developmental stages from collective-abstract through gender-indifferent agent to specified male or female gender, and from substantive to adjective. In the following, I adduce examples of such polysemy from German, Latin and Ancient Greek.

The German collective-abstract suffix *-e* (< PIE **-eh₂*, as in German weak feminines like *Gab-e* ‘gift’; cf. on the morphological type SCHAFFNER 2001: 399) derives collective nouns as well as nouns denoting persons (male, female or of unspecified gender), cf. e.g.

Verbal base	Deverbal collective/abstract	Referent
<i>spenden</i> ‘to donate’ ⇒	Abstract <i>Spende</i> ‘act of donating’ and collective ‘donated object’	Inanimate
<i>spucken</i> ‘to spit’ ⇒	Collective <i>Spucke</i> ‘spit(tle)’	Inanimate, substance
<i>petzen</i> ‘to tattle’ ⇒	Abstract <i>Petze</i> ‘tattletale’	Animate, gender-indifferent, referring to children
<i>putzen</i> ‘to clean’ ⇒	Abstract <i>Putze</i> ‘cleaning woman’	Animate, female (derogatory)

wachen ‘to guard’ ⇒ Abstract *Wache* ‘guarding’ and Animate, usually
 collective ‘(military) unit of male
 guards’ ⇒ single professional
 ‘guard’

Turning to Latin, an instructive case is furnished by Lat. *convena* ‘arriving person’ (< *‘coming together, gathering, meeting’), which can be most adequately glossed in Present-Day-English as ‘arrival’ with the same meaning extension from abstract to abstract and human referents, e.g. in the phrase *the newest arrival is an 18-year-old freshman from UNC* (D. Gunkel, p.c.). Lat. *convena* is substantival and gender-indifferent, cf. e.g.

Eodem convenae complures ex agro accessitavere “a number of arrivals came there from the farmland” (Cato *Orig.* fr. 22 ap. Gell. 18.12.7)

An vero tibi Romulus ille aut pastores et convenas congregasse “or do you really think that Romulus brought together shepherds and refugees back then?” (Cic. *De Orat.* 1.37)

Et quibusdam convenis et feris barbaris corporis custodiam committebat “and he entrusted the protection of his person to some assembled strangers and wild barbarians” (Cic. *Tusc.* 5.58)

In the following example, *convenae* is used predicatively and resembles an adjective modifying *amantis*. In addition, the word refers to a male-female couple.

Itaque paravi intus magnas machinas,| qui amantis una inter se facerem convenas “and so I have prepared great strategems inside, whereby I may make the lovers come together” (Pl. *Mil.* 138f.)

Continuing with Ancient Greek, Epic Greek ὁμηλική ‘sameness of age’ exemplifies the full pathway of development from a collective to a gender-indifferent and eventually pseudo-adjectival agent noun. Synchronically, the semantic array of ὁμηλική includes both the inherited and the innovative meanings. To begin, ὁμηλική is used as a collective ‘those of the same age’, cf.

ὡς ὄφελεν θάνατός μοι ἄδειν κακὸς ὀππότε δεῦρο

υἱέϊ σφῶ ἐπόμην θάλαμον γνωτούς τε λιποῦσα

παῖδά τε τηλυγέτην καὶ ὁμηλικὴν ἐρατεινήν.

“would that I had chosen death rather than to have come here with your son, far from my bridal chamber, my friends, my darling daughter, and all the companions of my girlhood” (*Il.* 3.173ff.)

In the following example, ὀμηλική is used predicatively and could lend itself to reanalysis as an adjective:

εἰ γὰρ ὀμηλική γε γενοίμεθα τῷδ' ἐπὶ θυμῷ

αἴψά κεν ἢ ἐφείροτο μέγα κράτος, ἢ ἐφείροίμην.

“if I were of the same age as he is and in my present mind, either he or I should soon bear away the prize of victory” (*Il.* 13.485f.).

With reference to single youths, ὀμηλική could come to denote individuals. Crucially, both female and male reference were possible, cf. with female reference

εἰδομένη κόρη νηυσικλειτοῦ Δύμαντος,

ἣ οἱ ὀμηλική μὲν ἔην, κεχάριστο δὲ θυμῷ.

“Athena took the form of the famous sea leader Dymas’ daughter, who was a bosom friend of Nausicaa and just her own age” (*Od.* 6.22f.).

and with male reference

Μέντορ, ἄμυνον ἀρήν, μνησαί δ' ἐτάροιο φίλοιο,

ὅς σ' ἀγαθὰ ῥέξεσκον· ὀμηλική δὲ μοί ἐσσι.

“Odysseus was glad when he saw her and said: Mentor, lend me your help, and forget not your old comrade, nor the many good turns he has done you. Besides, you are my age-mate” (*Od.* 22.208f.).

4. The rise of **-e-h₂* and **-i-h₂* as an incipient innovation in Tocharian

In Tocharian, the inherited PIE collective is in a state of transition between a derivational and an inflectional category. On the one hand, feminine gender appears as an already established category in the grammar of Tocharian. The evidence includes:

- the demonstrative pronoun Toch. B *sā*, which continues **sa* from **sa(h₂)* (Sieg, Siegling & Schulze 1908, RINGE 1996: 94, PINAULT 2009);
- feminine substantives, e.g. Toch. B nom. sg. *šana* (**-h₂*) ‘wife’, obl. sg. *sano* (**-eh₂-m*), nom. pl. *šno-na* (**-eh₂-es*), cf. RINGE (1996: 94); PIE **d^hoHnah₂-es* > **d^hōnās* > PToch. **tanā-s* > Toch. B *tāno* ‘corn’ (cf. Skt. pl. *dhānās* ‘grain’, Lith. *dūona* ‘bread’; HILMARSSON 1987: 18, RINGE 1996: 93, KIM 2009: 79, PETERS 1981: 243, MALZAHN 2011: 98);
- pronominal adjectives in PIE **-nt-* with fem. **-nt-ih₂*, e.g. Toch. A fem. *ponts**, obl. *pontsām* (cf. Gr. *πᾶσα* ‘all, every’; PINAULT 2008: 524);
- feminine adjectives to athematic stems, e.g. Toch. B *klyomo* ‘noble’, feminine *klyomña* < PIE **-mōn*, fem. **-mn-ih₂*;
- numerals, e.g. Toch. B *tarya* < PIE **trih₂*.

Strikingly, however, most thematic adjectives do not show a fully fledged system, but rather suppletion of the feminine markers, using **-ih₂* in the singular but **-eh₂* in the plural (Sieg, Siegling and Schulze 1931: 28f., first mentioned in the context of IE reconstruction by KIM 2009: 75-7).

nom. masc. sg.	<i>*h₁rud^h-r-o-s</i>	B masc. <i>ratr-e</i> ‘ruber’
nom. fem. sg.	<i>*h₁rud^h-r-i-h₂</i>	B fem. <i>rätar-ya</i> ‘rubra’
nom.= acc. fem. pl. & coll.	<i>*h₁rud^h-r-eh₂</i>	B fem.-neuter pl. <i>rät-r-o-na</i> ‘rubidae, rubidas’

One possible explanation for the semi-thematic inflection of thematic adjectives in the feminine is that the emergence of **-ih₂* and **-eh₂* as motion suffixes represents an incipient innovation in Tocharian. This fits well with the hypothesis that **-eh₂* as a motion suffix results from a secondary development in the adjectives, an idea which has long been entertained (cf. the literature in SCHWYZER 1950: 36 Zusatz 3 mit Lit.).

Instead of collective-abstracts in **-eh₂*, Tocharian thematic adjectives exhibit the reflex of **-ih₂* in the feminine nominative singular. Strikingly, the Tocharian B nominative singular feminine *rätarya* ‘red’ goes back to PIE **h₁rud^h-r-i-h₂* ‘redness’, a collective-abstract noun, which yielded an adjective only subsequently by syntactic conversion. This integration of collective markers by syntactic conversion in the adjectival inflection was already suggested by HARÐARSON (1987a: 102) and can in general be supported by a wealth of data (HACKSTEIN 2010a and 2010b). Adjectival conversion is demonstrably favored by the occurrence of collective-abstract nouns as predicate nouns or close appositions (NUSSBAUM 1997: 117f., HACKSTEIN 2010a: 63f.). Indisputable cases are Latin *bēstia* > French *bête* or German *Schade(n)* ‘damage’ > pseudo-adjectival *schade* ‘a pity, unfortunate, regrettable’, e.g. *sehr schade* ‘quite unfortunate’. If Tocharian offers a model for collective-abstracts in **-ih₂* yielding the feminine adjectival suffix of the *devī*-type, then the Tocharian evidence viably supports STÜBERS analysis (2007: 9, likewise SZEMERÉNYI 1990: 203) of adjectival *devī*-type **-ih₂* as the *h₂*-derivative of an *i*-stem abstract.

The idea that adjectival fem. sg. **-ih₂* arose through the syntactic conversion of substantive collective-abstract nouns has much in favor of it, since Tocharian offers a number of precedent cases as we shall see further below. This hypothesis also implies that **-ih₂* was originally unspecified as to grammatical gender. The present investigation will show that Tocharian agent nouns systematically employ **-ih₂* as a suffix which is unspecified as to grammatical and natural gender. Outside Tocharian,

a few indications pointing in the same direction have recently come to light, cf. for instance REMMER's treatment of Vedic masculine nouns and Avestan male names ending in $-ī$ of the *devī*-type (REMMER 2010).

What has been said about adjectival $*-ih_2$ in Tocharian also holds for $*-eh_2$. Feminine $*-eh_2$ is well-nigh absent in the nominative singular of thematic adjectives, which supports the old view (see above) that feminine adjectival motion with $*-eh_2$ arose secondarily. Among the very scanty traces of Tocharian thematic adjectives exhibiting $*-eh_2$ in the feminine singular is PIE **neuos*, which is reflected as Toch. B masculine *ñwe*, and beside which the feminine singular B *ñwa** is found once in the oblique form *ñwai* in the internally inflected compound *ñwai=riši* 'of the new city', cf.

ñake šuktañce škas meñantse meṃ mante ñwe mape šātre šwātār "now, since the seventh day of the sixth month new ripe grain is consumed" (B 461,4f., PINAULT 1984: 30)

cai ñwai ri=ši śrāy^ā "these are the aged men of the New City" (SI B Toch./12,1, PINAULT 1998: 16)

The scarcity of Tocharian singular forms employing $*-eh_2$ as a marker of the feminine supports the above explanation and accords better with an incipient innovation in Tocharian than a receding archaism. Since the eh_2 -inflection does not appear to be established in the Tocharian adjective, the question arises whether *ñwai=ri(-ši)* might belong to an intermediate stage in which B *ñwa** was still a derivationally formed collective-abstract in apposition, as if 'the novel(ty), the city'. As has long been seen (MELLET 1930-31: 6, HARĐARSON 1987a: 102, TICHY 1993: 1f.), the older binary gender system I: **neuos* (masculine = feminine), **neuom* (neuter) was superseded in late PIE by the innovative tripartite system II: **neuos* (masculine), **neueh₂* (feminine), **neuom* (neuter). This change was brought about by the integration of the collective-abstract noun **neueh₂* (feminine) 'being young, youth; novelty' (cf. NIKOLAEV 2010a: 191) into the inflection of the adjective. The older system I is still living in Hittite, where *newaš* 'new' is the common-gender form. The female name Hitt. ^f*Niwa* 'the new one' (see ZEHNDER 2010: 89, STÜBER 2009: 14f.) represents either "a purely graphic entity" with *-a* for nominative *-aš* (nominatives in naming constructions may use the bare stem, cf. HOFFNER & MELCHERT 2008: 242), or collective-fem. *newa(h)* with regular loss of final $*-h_2$ after vowels, alongside which traces of a non-inflectional, purely derivational collective noun are presupposed by the Cappadocian name in Hittite-Luvian transmission ^(f)*Niwaḫšušar*, ^(m)*Niwaḫšu*.

In sum, the evidence presented in this section corroborates the scenario envisaged by HARĐARSON (1987a: 102) for the creation of thematic nom. sg. fem. adjectives in $*-eh_2$, namely the syntactic reanalysis and morphological conversion of

collective-abstract nouns into adjectives with feminine reference, cf. e.g. PIE **snusos lub^héh₂* “the daughter-in-law is a pleasure.”

5. Collective-abstracts in *-*h₂*, depending on their semantics and the paradigmatic contrast, may be assigned to either the singular or the plural. The Tocharian collective is transnumeral, in that such formations (transnumeralia) straddle the division between singular and plural. I cite three examples.

Alongside PIE **mēms*/**méms*- > Skt. *māḥ* ‘flesh’ and PIE **mēms-re-h₂* ‘fleshy stuff’ > Lat. *membra*, Gk. *μῆρα*, OIr. *mír*, we find the collective **mems-(e)h₂* > PToch. **m’ämsa* > Toch. B plural *mīsa* ‘flesh, fleshy stuff’ (RINGE 1996: 70, VINE 2002: 333, NIL 486-8). PToch. *-*a* < PIE *-*h₂* has turned into a regular plural marker, cf. B *púwar* ‘fire’, coll. pl. *pwāra*, dual *pwāri* ‘two fires’ (< PIE *-*ih₁*; HILMARSSON 1989: 112f.). On the one hand, Toch. B *mīsa* is assigned inflectionally to the plural by taking plural concord in adjectives, cf. *misa pepakṣuwa* ‘meat soup’ (PK AS 2B b4 = Y2 b4, CARLING 2003: 41, 64). On the other hand Toch. B *mīsa* could be conceived of as a singular mass noun by the Tocharians, since in order to express the plural a new plural *misaiwenta* ‘pieces of meat or flesh’ was formed (WINTER 1962: 116f.) with individualizing -*nt-* (MELCHERT 2000, BALLES 2004b: 20).

An analogous case with a singular collective and a new count plural is Toch. B singular *ost* ‘house, *Haus*’, singular collective *ostwa* ‘aggregate of houses, *Gebäude(komplex)*’, count plural *ostwaiwenta* ‘aggregates of houses’, Toch. A singular *wašt*, collective *waštu* ‘dwelling place, house, palace’ (many attestations in the *Maitreyasamitināṭaka*), count plural *waštantu* (A 318 b5).

A third example is provided by the Tocharian quantifier B *māka*, A *māk* ‘much, many, magnitude, multitude’. Tocharian B *māka*, A *māk* descends from the collective noun **még-h₂*, acc. sg. **ṁg-éh₂-m*. PINAULT plausibly explains the Tocharian anlaut by a blending of the allomorphs **mV-* and *āk* from **ṁg-* with *a*-Umlaut. The semantic range of B *māka*, A *māk* includes alongside the inherited as singular mass noun ‘multitude/a lot’ (a) as direct object, b) appositionally, c) adverbially) its innovative employment with overt plural inflection (as substantive or adjective, see d).

a) Tocharian B *māka* as accusative singular neuter, cf. Skt. ***bahu*** *bhāṣate = māka weṣṣām* (B 305b4).

b) Appositional (postpositional) Tocharian B *māka*, A *māk* in prose texts takes singular or plural concord in the verb, cf. singular concord in Toch. B *uppalavarṇaṇ aśīyantse yarke peti māka sporttītrā*, literally “**reverence, a lot**, was paid to the nun Uppalavarṇa” (B HMR 3 a3), beside plural concord, e.g. in Toch. B *ṣadvarginta patraiṁ māka kraupiyentrā* “The ṣadvargika monks gathered **many (a lot of) begging-bowls**” (B 337 b4). Crucially, in the preceding examples, the postposition of

the attributive quantifier (cf. THOMAS 1995:58-62) deviates from the positional rules of B *māka*, A *māk*, whose default position is before the head noun, cf. THOMAS (1995: 50 with fn. 5). To account for the unexpected postposition, THOMAS (1995: 59) suggested an analysis of *māka* as an adverb, but this analysis is not persuasive in light of the intended sense of the passage, which may also be inferred from the Pāli version. However, if seen as an apposed mass noun and as an apposed substantive, the postposition of *māka* accords perfectly with the syntax of Tocharian, which requires apposed nouns and appositions to be postposed (HACKSTEIN 2010a).

c) Adverbial acc. sg. n. Tocharian B *māka* (cf. THOMAS 1995), e.g., *māka plyawāre ñakti sāmna* “gods and humans wailed **a lot**”, paralleled by Homeric Greek, e.g., **μέγα** ... βοήσας (Il. 17.334), and the equation Toch. B *kakāccu māka* “having rejoiced a great deal” (B 118a6), Latin *magis* ... *gaudebat* (Ter. *Eun.* 587), *magis gauderem* (Cicero *ad Att.* 8.6.4.2), *magis gavisurum te* (Cicero *ad fam.* 8.8.1), Greek **μέγ'** ἐγήθηεν (Il. 7.127), γήθησεν δὲ **μέγα** (Hes. *Th.* 173).

d) Examples for overt plural inflection include substantival comitative B *māka=mpa* “together with many” (B404a1), and *kramṣām sū wnołmets makāts päłskonta* “he disturbs the thinking of **many beings**” (B 15 a8 = 17 b2), *māka alloñkna sankrāmntane* „in many other monasteries“ (Klosterbrief, THOMAS 1964: 74, text 34, 5).

In sum, the Tocharian evidence accords nicely with Brugmann’s earlier diagnosis: “Die Formen auf *-ā* waren also von Haus aus weder singularische noch pluralische Kollektiva, sondern Kollektiva schlechthin, die nach Bedürfniss bald singularisch bald pluralisch gefasst wurden” (Brugmann 1930: 355).

6. Collective-abstracts in **-t-i-h₂* and abstracts in **-ti-eh₂*

When suffixed to **-t-* and **-nt-*, the Tocharian reflex of PIE **-i-h₂* is not always firmly associated with feminine gender, except for lexicalized items like substantival B *lāntsa*, A *lānts* ‘queen’, and pronominal adjectives like Toch. A fem. *ponts** ‘all, every.’ Rather, Tocharian reflexes of **-t-i-h₂* and **-nt-i-h₂* appear to be indifferent to grammatical gender. It is in this connection that our analysis of Tocharian feminine thematic adjectives of the type *rātarya*, *ñwa** as collective-based pseudo-adjectives becomes particularly appealing. As will be shown in the next sections, Tocharian offers other traces of the substantival employment of complex agentive formatives in **-h₂*, **-i-h₂*, and **-e-h₂*, which are more or less closely associated with adjectival categories outside Tocharian:

**-t-i-h₂* (§6.1), **-t-i-eh₂* (§6.2)

**-nt-i-h₂* (§7.1), **-nt-i-eh₂* (§7.2)

**-nt-eh₂* (§8.2)

6.1. Collective-abstracts in *-t-i-h₂

Complex formants of the type *-t-i-h₂ appear in Tocharian as gender-indifferent agent-noun markers, referring to male and female individuals alike. Perhaps the best example is B *aknātsa*, A *āknats* ‘fool(ish)’. Traditionally, this noun is classified as an adjective, see KRAUSE/THOMAS (1962: 97 §96,3). In terms of historical phonology, however, B *aknātsa*, A *āknats* rather reflects an abstract noun PIE **ǵneh₃-t-i-h₂*, whose substantival properties persist with respect to the absence of paradigmatically opposed gendered forms, e.g. there is no masculine/neuter †*aknātse* beside B *aknātsa* (§3.1).

Toch. B *aknātsa*, A *āknats* is not exclusively assigned to feminine gender, but may refer to females and males alike. Furthermore, it shows an inclination towards substantival use.

Gender-indifferent:

ce cmelše yarke petisa triketār ramt akn(ā)tsa onuwaññe śaul paktār “by honoring and flattering this existence the fool [gender indifferent] goes astray [and] regards this life as eternal.” (B 31b3Š)

totkānts aiku te mant kārsormeṃ appamāt yamaskentār māyšeñcañ aknātsañ (B 31 a6) “knowing that he is known only to a few, the not-knowing, **ignorant ones** [gender indifferent] ridicule him,” translating Skt. *alpajñāta iti jñātvā hy avajānanty ajānakāḥ* (Udv. 13cd).

Masculine:

aismw akn(ā)tsa wat āṃtpi ksa śpā mā=lām māskentār “the wise one and the fool [masc.] are not different” (B 28b3Š)

walo aknātsa su mārsau śaṅ āñm “The king, a fool [masc.], having forgotten even himself” (B 81a2Š)

mātne āknats, mātne triḡsant “like a fool, like an erring one” (A 80 a4)

aknātsaṃ no cai (masc.), *mā pällāntār āyor ailñe* “They are fools [masc.], they don’t praise the giving of alms” (B 23b7Š).

In sum, the formal peculiarities of Toch. B *aknātsa*, A *āknats*, namely its indifference to gender and its propensity for substantival use, can be accounted for by assuming an underlying abstract-collective substantive, whose precise derivation is reconstructible as follows:

PIE **ǵneh₃-t-s* > Gk. ἀγνώς ‘unknown’ (Hom. *Od.* 5.79), ‘ignorant’ (S. *OT* 1133, X. *Oec.* 2013);

⇒ **ǵneh₃-t-i-h₂* ‘ignorance’ > Toch. B *aknātsa*, A *āknats* ‘ignorant one’ (second-syllable *ā* → *a* by vowel weakening); cf. HILMARSSON (1991: 125, 1996:

10): “the Tocharian forms reflect a final **-tsā as if* from I.-E. **-t-iH₂*”;
 ⇒ ** η - $\acute{g}neh_3$ -t-o-* (Lat. *ignōtus*, Goth. *unkunþs*, OIr. *ingnad* ‘unheard of, unusual’;
 cf. VINE 2004: 360-366 on **CeH-to-*).

6.2. Abstracts in **-ti $\acute{e}h_2$* and Tocharian B agent nouns in *-ca*

The pathway of development illustrated above by Toch. B *aknātsa*, A *āknats*, leading from abstract noun to agent noun, recurs with the Tocharian B agent nouns in *-ca* (KRAUSE & THOMAS 1960: 188f.). These nouns again show morphological and syntactic peculiarities that are best explained as persistent features of diachronically underlying abstract nouns, namely the lack of an overt gender contrast and substantival syntactic behavior.

The Tocharian B agent nouns in *-ca* occur as non-attributive substantives and are used as translation equivalents of Sanskrit substantives, cf. e.g.

cowai tārkauca cowai tārkau māske(tār) “The **robber** turns into the robbed” (B 22a3), rendering Skt. *sa viloptā vilupyate* (Udv. 9.9).

B *tne ytārye sā śpālmeṃ śaiṣṣe kārśaucaisa apākārtse yāmusa klyomña* “This noble path has been shown to be the best **by the knower** of the world” (B 30 a3f.).

(mā lkā)tsis aittanka prere kārstaUCA “he is **the destroyer** of the arrow directed at not-knowing” (B 27 b3), translating Skt. *ajñāyai śalya-kṛntanaḥ* (Udv. 12.9).

This word-formation type is productive; further examples include B *wayauca* ‘leader’, *yaṣṣūca* ‘begger’, *ynūca* ‘going’, *kālpauca* : Skt. *lābhin, wārpauca* ‘enjoyer’. An incipient integration into the verbal inflectional paradigm is hinted at by its ability to govern direct objects: cf. *śaiṣṣe kārśaucaisa, prere kārstaUCA* in the passages above.

Rather than being an inner-Tocharian creation, the Tocharian B word-formation type in *-ca* arguably has an Indo-European pedigree. It descends from abstract derivatives in **-ti $\acute{e}h_2$* to PIE formations in **(n)t(i)jo-* (Lat. *nūntius*, Skt. *śrutyam*). The postulation of such abstract derivatives, with subsequent development to agent nouns, is not as far-fetched as it might at first seem. A precedent for the suffix and its syntactic conversion from an abstract substantive to a pseudo-adjective is furnished by Italic, cf. e.g. Latin *amīcus* ⇒ *amīcītia*, *puer* ⇒ *puerītia*, **mīl-ī-t-s* ‘soldier’ (> **mīl-īs-s* > *mīl-ēs-s*) ⇒ *mīl-i-t-ia*. In Italic, **-ti $\acute{e}h_2$* serves to form denominal derivatives designating institutions, cf. e.g. Umbrian *kvestretie* (loc. sg.) ‘office of the quaestor’, *uhtretie* (loc. sg.) ‘office of the *uhtur*’. Through reference to concrete entities, such abstract nouns could develop into collectives and eventually come to denote a single member of the collective: abstract ‘soldierhood’ > collective ‘soldiery’ > agent noun ‘soldier’. Such a development may be observed in process in

Latin *militia*, which alongside its abstract meaning ‘military service’ (*militia* ‘military service, war’, e.g., Pl. *fr. inc.* 128) extended its meaning to ‘soldiers collectively’ (e.g., Liv. 4.26.3), and eventually to ‘individual soldier’ (*militia equestris* ‘cavalry officer’, e.g., Plin. *Ep.* 7.57.2).

Unlike Italic, where the formations in **-tjā-* are still predominantly abstract nouns, Tocharian developed these abstract nouns into gender-indifferent animate agent nouns. The same development in all likelihood occurred in Lycian, where agent nouns in *-aza* are amenable to a derivation from abstract nouns in **-tjeh₂*; thus HAJNAL (1994: 151f.) derived Lycian agent nouns in *-aza*, *kumaza* ‘priest’, *zχχaza* ‘warrior’ from **X-e/otjā-*. Under this analysis, a relation to the Toch. B agent noun suffix *-ca* becomes very probable; this may in turn represent an areal phenomenon reflecting the prehistoric contiguity of Proto-Anatolian and Proto-Tocharian.

There is more cumulative evidence to suggest that the conversion of collective and abstract nouns into agent nouns occurred on a large scale in the prehistory of Tocharian. Not only did the conversion involve collective-abstracts in **-t-i-h₂* and abstracts in **-tjeh₂*, but also those in **-nt-i-h₂* and **-ntjeh₂* (§7), and those in **-nt-eh₂* (§8).

7. Collective-abstracts in **-nt-i-h₂* and abstracts in **-ntjeh₂*

7.1. Collective-abstracts in **-nt-i-h₂*

Both Tocharian languages preserve reflexes of the collective-abstract suffix **-nt-i-h₂*, which is the source of the agent noun suffix B *-ntsa*, A *-nts* (KRAUSE & THOMAS 1960: 151 §233,2; for a collection of examples see PINAULT 2008: 618, MALZAHN 2010: 485-7). B *-ntsa*, A *-nts* shares the morphosyntactic characteristics encountered above with the agent nouns in *-ca*: lack of gender distinction, constraint on attributive use, and substantival word-type. All of these peculiarities are explainable as persistent properties of the historically underlying collective-abstract nouns.

As an agent noun suffix, B *-ntsa*, A *-nts* is so productive that it is suffixed to subjunctive stems that are clear inner-Tocharian innovations, cf. e.g.

B *tarkāntsa* ‘carpenter’: *or namseṃ tarkāntsaṃ ṣaṅ aṅm y(ātāskeṃ aiśaumi)* (PK NS 107 b1, THOMAS 1976: 106, 110), the translation of Skt. *dāruṃ nama-yanti takṣakā hy ātmānaṃ damayanti paṇḍitāḥ* (Udv. 17.10cd) “the carpenters cut/fashion the wood, the sages control themselves”.

B *wawāntsa* (375a2) = *wapāntsa* ‘weaver’ (as presupposed also by Toch. A **wāpaṃts*, *wāpāṃtsune* ‘weaving’, see SCHMIDT 2001: 20): *Vardhanem wapāntsai palskoś pyāmttsat* “call to mind Vardhane, the weaver” (B375b2).

B *mallāntsa*, abl. pl. *mallantsasmem* ‘[grape] presser’ (SCHMIDT 2001: 20).

The Tocharian verbal adjectives in *-antsa* descend from deadjectival abstracts in **-nt-ih₂*, a word-formatational type, which while sporadically attested in Ancient In-

do-European languages (Goth. *hulundi* ‘hell’ < PIE $*k̑l-nt-ih_2$, Goth. *sunja*, OE *synn*, OHG *suntea* ‘sin’ < PIE $*h_1s-nt-ih_2$, cf. SEEBOLD 1969: 25-45, SCHAFFNER 2001: 555) achieved greater productivity in Tocharian. It preserves the prior developmental stage of the feminine *nt*-participle of the type of OCS *berōšti*, Goth. *baírandei*, Gr. φέρουσα, and Ved. *bhára(n)tī-*. (Although phonologically compatible with the latter participles, Toch. B *preṃtsa* does not present unequivocal evidence for PIE $*b^herontih_2$ (contrary to SCHMIDT’s 1975: 294f. interpretation) since *preṃtsa* “ought to be feminine” while referring to a masculine noun *tso* (CARLING 2003: 89) and since it lends itself also to an alternative explanation as a perlocative form meaning ‘with pregnancy’ (CARLING 2003: 88f., cf. PINAULT in this volume, pp. 184f.). Note, however, that the objection raised by CARLING against SCHMIDT’s analysis vanishes if *preṃtsa* represents an abstract-derived pseudo-adjective of the *aknātsa* type, which is exempt from gender agreement.)

This line of development clearly attests to an association of the *devī*-inflection with PIE $*-i-h_2$ (in accordance with STÜBER’s explanation, STÜBER 2007). The secondary origin of the feminine *nt*-participle accords well with the secondary character of verbal *nt*-inflection in general, since, as is well known, the integration of the erstwhile agent noun suffix *-nt-* into the verbal paradigm is a secondary development, along with its association with active voice. As is evident from Hittite (HOFFNER & MELCHERT 2008: 339), this suffix originally had intransitive-passive value, of which only scant traces survived in the other Indo-European branches: cf. e.g. Ved. intensive *pépiśat-* ‘adorned’, Ved. *pīśat-* ‘speckled’, Lat. *ēvidēns* ‘visible’, *vehēns* ‘being carried’, Goth. *hulundi* ‘hell, the concealed’ (from $*k̑l-nt-ih_2$), and see SCHAEFER (1994: 45f.) on other relics of the intransitive-passive use of *nt*-participles in the classical Indo-European languages.

7.2. Abstracts in $*-ntijeh_2$

The present active participle in Tocharian B is formed by means of the suffix *-ñca*. In trying to determine the historical source of this suffix, it is again helpful to base the reconstruction on its synchronic peculiarities, which stand a chance of preserving features of an ancestral formation. Morphologically, the *eñca*-participles show no overt gender contrast and are predominantly substantival. The evidence of Sanskrit-Tocharian translations is especially telling. There, Tocharian active present participles function as translation equivalents not of Sanskrit present active participles, but of substantival agent nouns. Cf. the following examples:

agent noun

klāwāṣṣeñcañ ka cai “these (the tathāgatas) are only the proclaimers” (B 27 b3), translating Skt. *ākhyātāras tathāgatāḥ* (Udv. 13.9b-d).

prāg eva hi(ta) vaktuś ca • k_ucenno spē kärtse weṣṣeñcantse (B 251 a4), “[the teaching] of even the proclaimer of the good” (for the Skt. cf. SHACKLETON-BAILEY 1951: 98, 168).

converb

tāryā-aiśamñe tākoy kwri ṣamāne tne putkowā, wikṣeñca yarkesa, srukalñe kauṣeñca snai tśamñe, ... (B 31 a6), “if a monk should have the threefold wisdom, the monk segregated [and] keeping himself away from admiration, **beating** death, free of sin, ...” translating *traividyaḥ syāt sa ced bhikṣur mṛtyuhantā nirāsravaḥ* (Udv. 13.13ab).

(rarely) attributive

aiśaumi ce_u pällāntār krento āstreṃ saul śayeñcai wñolme (B31a5), “The wise ones praise him as a being leading a good and pure life,” translating Skt. *vidvāṃsas taṃ praśaṃsanti śuddhājīvam atandritam* (Udv. 13.12cd).

The verbal *nt*-participle is primarily used as a substantive agent noun, either appositionally, (rarely) attributively, or as a predicate noun. By contrast, there is a constraint on the predicative use of the *nt*-participle as a verbal adjective, i.e. as a converb. When functioning as a converb, the middle participle has to be used instead. This formal differentiation, which was first noted by DIETZ (1981: 74, 144; cf. now MALZAHN 2010: 480ff.), is best exemplified by pairs of contrasting active and middle participles of the same verb. We observe a syntactically driven shift from substantival active participle in *-ñca* to converbial middle participle in *-mane*, cf. e.g.

substantival active participle in *-ñca*

pelaikne preñcai “oh bearer of the dharma” (B H149add. 67b5), translating Udv. 22.11a *dharmadharaṃ*.

poysiñ=ākalk preñcai ṣek “o bearer of the desire for becoming the all-knower” (B 229 a4).

converbial middle participle in *-mane*

kektseñ premane teṃ läklenta wärpnātrā “if bearing a human body, one feels the pains” (B284 a3f.).

substantival active participle in *-ñca*

mā waṣe weṣeñcaimpa seme wāntre mäskemar “with a liar (lit. lie-teller) I don’t want to cooperate” (B 596 a1).

converbial middle participle in *-mane*

(mā wai)ke (weskau) weskemane, aiśtrā waikē we(skau) “in saying ‘I’m not telling a lie,’ he knows ‘I’m telling a lie’” (B336a7).

7.2.1 Phonological interpretation: what are the possibilities?

It is impossible to derive Toch. B *-eñca* from the prs. act. fem. **-o-nt-ih₂*, which would yield **-aentja* > **-aent^sja* > **-aent^sa*, with regular development of the sequence dental plus yod to a dental affricate *-ts-*. As we saw above in §7.1, the phonological equivalent of Gk. φέρουσα, Ved. *bhāra(n)tī*, OCS *berqšti* appears in Tocharian B as the lexicalized *preṃtsa* ‘pregnant’.

Which options remain to explain B *-eñca* in terms of historical phonology?

The only remaining possibility is to explain the palatal affricate Toch. *-c-* from **-t-* plus syllabic **-i-*, i.e., **-nt-iġeh₂* > **-ntiġah₂* with a Kuiper byform **-ntiġa* > **-nt^viġa* > **-nc^viġa* > **-nc^vja* > *-ñca*. For the phonological development, cf. PIE **tritiġeh₂* > **tritiġah₂* with loss of final *-h₂* per Kuiper to **tritiġa* > **tri^viġa* > ***tric^viġa* > **tric^vja* > B *trica*.¹ A further example of the reduction of *-ciya* to *-ca* is fem. A **mācciyāk* ⇒ A *māccāk* ‘ipsa’ alongside masc. A *māttak* ‘ipse’ (PINAULT 2008: 550f.; for the etymology see PINAULT 2010: 362).

Toch. B *-eñca* may thus be compared with PIE abstract formations in **-ntiġeh₂* (cf. Lat. *praesentia*, *clēmēntia*, *patientia*; for a collection of forms, see WEISS 2009: 278f.). Crucially, the derivational type of Lat. *praesentia* is substantival. With regard to Toch. B *-eñca*, this would require us to assume a subsequent adjectival conversion of the *nt*-abstracts in question. A number of other indications indeed corroborate this presumption.

7.2.2 Morphological evidence for substantive inflection: the Tocharian B vocative in *-eñcai*

The presumed substantival value of the Tocharian B formant *-eñca* can furthermore be supported by morphological arguments. In particular, there is evidence to suggest that the vocative formation of these participles goes back to a substantival formation. The Toch. B participles in *-eñca* are peculiar in that they form a vocative in *-eñcai*. The inflectional pattern is

Vocative *-eñcai*
 Nominative *-eñca*
 Accusative (Oblique) *-eñcai*

¹ For the ordinal number ‘third’, a stem in **-iġo-* (delocative **-iġo-*, MAYRHOFER 1986: 165f.) is well attested: cf. especially OCS *trētijī*, Middle Welsh *trydyd* (GREEN 1992: 542), Av. *θritiia-*, in light of which the phonologically ambiguous forms Lith. *trėčias*, Goth. *þridja*, and Lat. *tertius* (WEISS 2009: 374) are also likely to contain the disyllabic suffix **-iġo-*.

There are arguments in favor of equating the Toch. B vocative ending $-(eñc)ai$ with the morpheme found in the vocative of the Indo-Iranian \bar{a} -stem substantives, and residually in Greek γύναι beside γυνή ‘woman’.²

Until now, the formal relationship of the Greek and Indo-Aryan vocative morpheme $-ai$ to the \bar{a} -stems has been unclear.³ The key to understanding, however, is provided by the interpretation of the Greek and Indo-Aryan morpheme $-ai$ as the vocative ($*-eh_2-i-t$) of the complex collective formation with nom. sg. $*-eh_2-i-t-s$, which, as shown by WATKINS (1975: 364f.), is reflected in the Greek noun type in $-ηῖς$, e.g. βασιληῖς, and the Luvian noun type in $-ah_i(t)-$, e.g. Luvian *annarumahi(t)-* ‘strength’, *hattulah_i(t)-* ‘health’. (A related collective-abstract suffix $*-eh_2-i$ may underlie Hittite $\Pi-ahhi$, which besides EICHNER’s interpretation (1992: 51) as a locative numeral abstract $*t/dayahhi$ ‘in twoness’, also allows for a contextual identification as an accusative neuter form.)

The Tocharian agent noun vocative in $-eñcai$ thus provides further evidence for a substantival formation in transition to adjectival usage. The same phenomenon is encountered in the Homeric Greek nouns in $-ηῖς$, which are normally feminine substantives (cf. the feminine names Βρῖσηῖς, Χρῦσηῖς, and see SCHWYZER 1939: 465) but also occur as appositional pseudo-adjectives, e.g. in δῶκε δὲ οἱ **τιμῆς βασιληῖδος** ἡμισυ πάσης: “and he gave him half of the power, of the kingdom” (*Il.* 6.193), ὡς δ’ ὄτε Πανδαρέου κούρη, **χλωρηῖς ἀηδὼν** “the nightingale of the greenwood” (*Od.* 19.518), ἔδρην ἀίδιον ἔλαχες, **πρεσβηῖδα τιμῆν** “you have gained highest abode and highest honor” (*H. Hymn.* 29.3). Phonologically, we would expect $*-eh_2-i-t$ to yield Greek $-ai$, cf. vocative $*-eh_2-i-t > -ai$ as in γύναι, locative-allative $*d^h g^h m-éh_2-i > χαμαί$ (with $-αί$ instead of $-αῖ$ due to early contraction; LIPP 2009: 107, NIKOLAEV 2010b: 66f.). By contrast, $-ηι-$ represents the leveling of allomorphic $*-eh_2-i-$, originally found inter alia in the genitive $*-eh_2-i-es$ and locative $*-eh_2-i-i$.

A further piece of evidence is furnished by the Latin collective morpheme $-ae$. The possible collective function of the Latin morpheme $-ae$ is proved by the morphosyntactic pattern exemplified by *unae bigae* ‘one two-horse team’ (not $*una biga$, which would be symmetrical with the pattern *casa, casae*), *binae bigae*, *trinae bigae* etc., which already in antiquity was found to be exceptional enough to warrant comment, cf. Varro *L. L.* 9.63f., 10.67. Examples such as these prove that Latin $-ae$ when used as a collective morpheme is indifferent to number, as it may occur with

² Reflexes of $*g^wneh_2i-$ are also found in Albanian, Armenian, and Phrygian, see MATZINGER 2006: 25. MATZINGER reconstructs $*g^wnh_2ai-$, but there is no phonological obstacle to positing $*g^wneh_2i-$.

³ For a survey of research on the vocative of the Indo-Iranian \bar{a} -stems, see LÜHR 1991: 173-5.

the numerals one, two, and three alike; for further discussion, cf. HACKSTEIN (2010a: 52f.).

The Latin-Anatolian-Greek-Indo-Iranian correspondence thus illustrates for the same suffix the transition from collective-abstract function (Luvian) to a “feminine” composite suffix (Greek, Indo-Iranian) designating natural and grammatical feminine gender. Functionally, Tocharian B vocative *-ai* in *-eñcai* would be closest to Luvian *-aḥit*, which continues the collective-abstract formant prior to its integration into a grammatical category of “feminine/collective-abstract.” Being coreferential with masculine as well as feminine nouns, B *-eñcai* is indifferent to gender. Furthermore, the Tocharian B vocatives and obliques in *-eñcai* are frequently substantival, cf. e.g.

pw=ākalkānta aiṣṣeñcai cimeṃ akalk ñāskemar “O fulfiller of all wishes, of you I request a wish” (B 228 b3f.).

pontäts saimo, kārtse-ritai, añmālaška, läkle-nākši, säkw aiṣṣeñcai, kāṣṣi, pānto “O refuge of all beings, seeker of hale, compassionate one, destroyer of sorrows, bestower of luck, teacher and support” (B 229 b3f.).

mā waše weṣeñcaimpa ṣeme wāntre mäskemar “with a liar I don’t want to cooperate” (B 596 a1).

Equating Tocharian vocative *-ai-* (collective-abstract) with Luvian neuter *-aḥit* (genus commune) would account for the homophony of the vocative and accusative/oblique *-ai* in Tocharian. Under the given hypothesis, the homophony of vocative and oblique simply continues the non-distinction of vocative (= nominative) as against the accusative.

	I (Luvian, Greek)	II (Latin, Greek, Indo-Iranian, Tocharian)	III (Slavic, Italic, Greek)
Vocative	*-eh ₂ -i-t	*-eh ₂ -i-t	*-eh ₂ > *-ah ₂ > *-a ⁴
Nominative	*-eh ₂ -i-t	*-eh ₂	*-eh ₂
Accusative	*-eh ₂ -i-t	*-eh ₂	*-eh ₂

⁴ The vocative morpheme may conceal a sandhi-allomorph of the nominative (TICHY 1993: 5 fn. 8, MEIER-BRÜGGER 2010: 255). On the plausibility of the *vocativus pro nominativo*, see DUNKEL 1998: 80ff. and MALZAHN 2000.

Originally, **-eh₂-i-t* served as nom., voc. and acc. (I), and **-eh₂-i-t-* was merely an allomorph of the isofunctional simple morpheme **-eh₂-* (III). Through blending of (I) and (III), suppletive patterns arose as in Indo-Iranian, Tocharian and Greek (II). In Tocharian B, the association of vocative *-ai* (**-eh₂-i*) and nominative *-a* (**-eh₂*) corresponds to the pattern found in Vedic Skt. *séne*, *sénā* and residually in Greek γύναι, γυνή (acc. γυναῑκα).

7.2.3 Collective-based vocatives in thematic stems

In Tocharian, certain paradigmatic configurations show reflexes of the PIE collective morpheme **-eh₂* in transition between the original collective and a feminine-singular or neuter-plural function. As a case in point, we may mention Tocharian thematic nouns with masculine singular vocatives in *-a* alongside nominatives in *-e*. Thematic nouns (especially kinship terms) supply their singular vocative by means of a diminutive formation in **-eh₂* which is based on the collective, e.g., nominative *śomśke* ‘little son’, vocative *śomśka*. Crucially here, the vocative singular ending, which allows for a reconstruction **-a(h₂)*, is no longer a collective, since it denotes a single human being. Furthermore, synchronically it neither represents a feminine singular, since it denotes a masculine being, nor does it function as a neuter plural, given that the formation is aligned paradigmatically with masculine nominative singular *-e*.

How then are we to determine the function encoded by the vocative singular morpheme *-a*? A straightforward solution is suggested by the fact that the morpheme in question typically occurs in thematic diminutives. It is common in IE languages for diminutives to be encoded by morphemes conveying neuter gender, cf. WACKERNAGEL (1928: 16f.). Furthermore, the diminutive suffix conveys affection, which allows it to be employed with kinship terms. A neuter origin for the thematic vocative in *-a* is also supported by nominative *ñakte* ‘deity’, vocative *ñakta*. As in other languages, the term for ‘god’ was originally conceived of as impersonal (HACKSTEIN 2006: 102 fn. 45); and as pointed out by HILMARSSON (1989: 48f.), *ñakte* is treated morphologically as a neuter in Tocharian, with absence of *-m* in the obl. sg., and feminine-neuter concord in the plural. In sum, the Tocharian reflexes of **-eh₂* reveal a suffix in transition between collective function on one end and assignment to the feminine singular or neuter plural on the other.

8. Collective-abstracts in **-t-e-h₂* and **-nt-e-h₂*

The use of substantival collective-abstract formatives as animate agent noun suffixes conforms to a diachronic tendency or “drift” of Tocharian. The picture of the parallel conversion of collective-abstract formatives in **-t-* and **-nt-* into agent noun suffixes that we observed for **-tijeh₂* and **-ntijeh₂* is completed by the use of collec-

tive-abstracts in **-t-eh₂* and **-nt-eh₂* as animate agent nouns. Of these latter two agent-noun suffixes, however, **-t-eh₂* never became productive in Tocharian, whereas **-nt-eh₂* attained productivity in Tocharian contrary to the other Indo-European languages.

8.1 Collective-abstracts in **-t-eh₂*

Outside Tocharian, the inherited PIE collective-abstract suffix **-t-eh₂* is used to derive abstracts from adjectives and substantives, e.g. Skt. *devātā-* ‘service, sacrifice’, Lith. *nuogatà*, OCS *nagota* ‘nakedness’, Germanic adjective-derived abstracts in Goth. *-iþa*, OHG *-ida* (< **-étā*), Latin *nauta*, Elean Gk. *τελέστᾱ* ‘priest in charge of initiation’ (SCHWYZER *DGE* 413.78f.; according to LEUKART 1994: 44 in all likelihood vocative, see; and cf. HAJNAL 1998: 31f.); Myc. *te-re-ta*, interpreted as *telestās* (following the arguments adduced by LEUKART 1994: 42f.), and the morphologically and syntactically archaic Hom. Gk. *ἱππότᾱ Νέστωρ* (with generalization of the highly frequent vocative in *-tᾱ* as nominative, cf. LEUKART 1994: 42). Alongside the archaic type of *τελέστᾱ*, Greek innovated the singulative formation in *-tᾱς*, *-της* that was to become productive in the classical period, being added even to verbal roots.

8.2 Tocharian A present participles in *-ant* and Tocharian B agent nouns in *-enta*

The use of collective derivatives of *nt*-stems as substantive agent nouns recurs in the Tocharian A present active participles in *-ant*. The Tocharian A participle in *-ant* is desubstantival, as is proven by its Tocharian B correspondant in *-enta* (from PIE *-nt-eh₂*; B *-enta* is exempt from *a*-Umlaut, as noted by PETERS 1981: 243 n. 9; the failure of *a*-Umlaut to occur is to be ascribed to and indicates the overall productive status of the collective morpheme {a} in Tocharian, cf. e.g. the plural formative B *-enta*). Tocharian B *-enta* appears as a purely derivational agent noun suffix, thus preserving a stage prior to its integration in the verbal system, which has been completed in Tocharian A. Its substantival origin is further supported by a comparison with the type of Lat. *clienta*, *iuventa*. In sum, this Tocharian suffix illustrates the line of development from collective noun > abstract noun > agent noun > participle:

Inflection	Participle B <i>prekṣeñca</i>	Participle A <i>prakṣant</i>
Derivation	Agent noun B <i>prekṣenta</i>	

Cf. the following contrasting pairs of inflectional Toch. A *-ant* versus derivational Toch. B *-enta*:

A *sne-pältikāñ prakṣāntāñ* “unjust judges” (A 222 a2).

B *prekṣallene wayārene prekṣentaṃ weñāre* “they took him to court, (and) the judges spoke” (B H149add 12b1, THOMAS 1967: 26n. 35).

A *koṣānt-* ‘killing, killer’, cf. e.g. *koṣāntāṃ* (75a2), *koṣāntās* (71a6).

B *kausentañ kr_ii onolmi māka* “if beings, a multitude, are murderers” (B K 8 a6);

kause(antai kälpā)ṣä(ṃ kausenta su) “the killer seizes the killer” (B34b2) = Skt.

hantāraṃ labhate hantā (Udv. 14.3a); *kausentanne onolmenne* “among killers, among men” (B TX 2b4) = Skt. *hiṃsakeṣu manuṣyeṣu* (Udv. 30.46c).

Cf. also B *su ... weñentāne posa śpālmeṃ walo rṣākeṃtsä* “er, der allervorzüglichste unter den Sprechenden (Sprechern), der König der Weisen” (B K 3 b1, PINAULT 2007: 210).

The not altogether infrequent substantival properties of the Tocharian A participles in *-ant* can be explained as preserving morphosyntactic properties of the underlying collective formation, cf. e.g.

lok sām kāṣṣi, klopāntwāṣ tsälṣant “Far away is the teacher, the saviour of sorrows.” (MSN 1[I.10]a7, Ji / WINTER / PINAULT 1998: 64f.);

wāṣpā ne tāt p_ikis e(ṣant) “Indeed, you are going to be an almsgiver to everyone” (MSN 16[I.6]a5, Ji / WINTER / PINAULT 1998: 44f.);

cu knānmuneṣi śol e(ṣant) “you, giver of the life of knowledge” (MSN 8[II.4]a2, Ji / WINTER / PINAULT 1998: 82f.);

puk kāršnānt “the knower of all knowledge” (MSN 14[II.5]b1, Ji / WINTER / PINAULT 1998: 90f.);

p_ikis was praski arṣāntāñ “to all we (are) instigators of fear” (MSN 5[II.7]a8, Ji / WINTER / PINAULT 1998: 102f.).

As the preceding examples demonstrate, the Tocharian B agent nouns in *-enta* are comparable to the derivational type of Greek ἐθελόντης (PETERS 1981: 243 n. 9), and Latin *clienta* ‘female client’. To Latin *cliēns*, an old aorist participle, an abstract noun in *-tā*, *clienta*, is formed which originally denoted ‘the property of leaning on another person for support/being professionally connected to another person’ and subsequently came to refer to a person leaning/depending on someone else. Old Latin *clienta* has been concretised (cf. Paul. Fest., Lindsay p. 61: *clientam pro cliēnte Plautus dixit*) and further specialized its meaning to signify ‘a female client’, cf. e.g., *habeo eccillam meam clientam, meretricem, adulescentulam* (Pl. *Mil.* 789).

9. Conclusion

Returning to the initial question of how precisely to envisage the transition from collective to feminine, the Tocharian evidence offers new insights. With regard to

the development of the collective-abstracts in **-h₂* and **-eh₂*, Tocharian exhibits the following three developmental stages.

Stage I: Like the other Indo-European languages, Tocharian attests both the preservation of lexicalized derivational collectives (as individualized singular nouns or as plurals) and the innovation of inflected collective-based plurals (morphologization of **-h₂* > Toch. B *-a* as a neuter plural morpheme).

Stage II: In contrast to other branches of Indo-European, however, Tocharian is peculiar in preserving a second stage, which precedes the functional extension of the collective-abstract to denote natural and grammatical feminine gender. At this intermediate stage, we observe the incipient association with male and female referents of those collective-abstract formants that are firmly associated with feminine grammatical gender in most other Indo-European branches, namely **-ih₂* and **-eh₂*. The concretization and individualization of collective-abstracts in **-ih₂* and **-eh₂* to nouns denoting animate beings, with no restriction to males or females, is the preliminary stage to the restriction of **-ih₂* and **-eh₂* to the feminine at Stage III.

Tocharian shows a tendency toward the conversion of collective-abstract nouns in **-h₂* into animate agent nouns⁵, without specification of masculine or feminine referent. As demonstrated above, collective-abstracts of the second column could optionally be concretized with individual male or female referents, depending on the sociological context and conventions and linguistic implicature, and such instances of concretization could be conventionalized over time. The pivotal role was unsurprisingly played by agent nouns, which are most likely to be associated with animate referents.

§ 6.1 Toch. B *-tsa* (**-tih₂*, e.g. *aknātsa* ‘ignorant’).

§ 6.2 Toch. B *-ca* (**-tijeh₂*, e.g. *kārsauca* ‘knower’; Lyc. *kumaza* ‘priest’; Lat. *militia* ‘military service, soldiers collectively, cavalry officer’).

§ 7.1 Toch. B *-ntsa* (**-ntih₂*, e.g. *mallāntsa* ‘(grape) presser’; Gk. φέρουσα f. ‘carrying’).

§ 7.2 Toch. B *-ñca* (**-ntijeh₂*, e.g. *preñca* ‘bearing, bearer’; Lat. *patientia* ‘patience’).

⁵ This development complies with a general tendency of deverbal abstracts to undergo a conceptual shift to agent nouns. PANAGL 1980: 304 has pointed out that this tendency can be seen as the natural result of the more basic nature of the verbal abstract and the more specialized semantics of the agent noun. This fits well with the crosslinguistically greater variety of expressions encoding agent nouns (BALLE 2005: 58). For an instructive case study illustrating the shift of semantic parameters in the development from verbal abstract to substantival and eventually adjectival agent noun see KIM (2005: 279, 2010: 270-2, 400f.) on the Skt. formations in *-ana-*.

§ 8.2 Toch. B *-nta* (**-nteh₂*, e.g. *kaṣenta*, ‘killer; killing’; Lat. *clienta* ‘female client’).

The resulting Tocharian agent nouns appear as pseudo-adjectives characterized by the persistence of certain substantival characteristics, namely lack of gender contrast and a constraint on attributive use.

Stage III is marked by the functional restriction of collective-abstracts to the feminine singular. The prime example is the demonstrative pronoun **seh₂* > Toch. B *sā* ‘this’, from which the other Tocharian demonstratives are derived, e.g. Toch. B *sām*, *sā_u*, A *sām*, *sām*. The Tocharian state of affairs thus suggests that feminine grammatical gender first arose in the demonstrative pronoun (cf. already WACKERNAGEL 1928: 43, MEILLET 1930-31: 19f., SCHWYZER 1950: 36, STRUNK 1994: 155f.), while the same restriction to feminine singular function had not yet taken place in *men*-stems, *t*-stems, or *nt*-stems.

In sum, the Tocharian evidence points to the secondary character of feminine motion in the adjective. The idea of Early PIE collective-abstracts as the source for later feminine adjectives has a long pedigree, see MEILLET (1930-31:24) on Gr. ὑγίεια, Ion. ὑγίειη ‘health’, and cf. e.g.

animate (m. & f.)	abstract-collective
πρέσβυς ‘old(er)’	πρεσβεία ‘going ahead, mission’
θηλυς ‘female’, cf. feminine	θήλεια *‘womanhood’ → ‘female’
θηλυς, e.g., ὁ θηλυς ὄρεύς ‘the she-mule’ (Arist. <i>HA</i> 577 ^b 22), which is superseded by the innovated type ἡ θήλεια ἵππος (Hdt. 3.86)	

Parallel to these isolated Greek examples, but much more systematically than any other branch of Indo-European, Tocharian shows an intermediate stage of feminine motion in adjectives, intermediate insofar as the complex suffixes involved can be employed gender-indifferently or as singular feminines, while outside Tocharian they are restricted to the latter, cf.

PIE	Tocharian: abstract-collective referring to males & females	Outside Tocharian: feminine singular restriction
*-n-ih ₂	Stage III: B <i>plaktukāñña</i> ‘doorkeeper, warden’ (male and fem. ref.) Stage IV: B <i>klyomña</i> ‘noble’ (f.)	Greek τέκταινα ‘feminine carpenter’
*-t-ih ₂	Stage III: B <i>aknātsa</i> (male and fem. ref.)	Greek λύσσα ‘rage’, μέλισσα ‘bee’
*-nt-ih ₂	Stage IV: B <i>kartsa</i> ‘good’ (f.) Stage III: B <i>mallāntsa</i> ‘(grape) presser’ (male and fem. ref.) Stage IV: B <i>lāntsa</i> ‘queen’	

Under the assumption of a purely feminine suffix *-ih₂, B *plaktukāñña* ‘doorkeeper/warden’ was traditionally analyzed as a feminine noun (German ‘Türhüterin’); cf. KRAUSE (1955: 42), whose translation is by and large adopted by SCHMIDT (2001: 310). However, the profession of doorkeeper/warden was a predominantly male occupation in India and Central Asia.

animate (m. & f.)	Tocharian: abstract-collective referring to males & females	Outside Tocharian: feminine singular restriction
*b ^h eront-s (m. & f.)	ABSTR.-COLL. *-ih ₂ > AGENT NOUN abstr.-coll. *b ^h eront-ih ₂ ‘carrier’ (possibly > Toch. B <i>preṃtsa</i> , see §7.1 above) ABSTR.-COLL. *-iġeh ₂ > AGENT NOUN abstr.-coll. *b ^h eront-iġeh ₂ > Toch. B <i>preñca</i>	OCS <i>berqšti</i> , Gothic <i>bairandei</i> , Greek φέρουσα, Indo-Aryan <i>bhāra(n)tī</i>

Finally, Tocharian confirms the longstanding hypothesis that the predicative use of substantival abstract-collectives in *(e)h₂ as copular nouns or nominal appositions provided the catalyst for the reanalysis and formation of feminine adjectives. The morphosyntactic use of the Tocharian animate agent nouns exemplifies the syntactic prototypes posited by HARÐARSON (1987a: 102), PINAULT (1996: 204), NUSSBAUM (1997: 117f.), RIEKEN (2005: 62), and HACKSTEIN (2010a: 62-64). This fits well with the observable predilection of Proto-Indo-European and the ancient IE languages for nominal predication: substantives denoting properties come close to adjectives when used as predicate nouns or in close apposition (HACKSTEIN 2010a, 2010b: 75f.).

It follows that in pre-Tocharian, and perhaps already in PIE, the distinction between substantive and adjective was expressed syntactically rather than morphologically (BALLES 2009: 18ff.). The phonological reconstruction of the following Tocharian sentences points in the direction of predicatively used PIE abstract-collectives:

PIE <i>*so ŋ-ĝneh₃-t-ih₂</i> “He is ignorance.”	>	Tocharian B <i>se aknātsa</i> . “He is ignorant.”
PIE <i>*seh₂ ŋ-ĝneh₃-t-ih₂</i> “She is ignorance.”	>	Tocharian B <i>sā aknātsa</i> . “She is ignorant.”
PIE <i>*so ueb^hH-ont-ih₂</i> “He is (concerned with) weaving.”	>	Tocharian B <i>se wapāntsa</i> “He is a weaver.”

The Tocharian evidence therefore accords well with the often assumed secondary desubstantival character of adjectival inflection in Indo-European (see above, §2), and supports the view that adjectival gender is younger than substantival gender (SCHWYZER 1950: 36 Zusatz 3 with lit.). We have seen that adjectival abstracts in **-ih₂* provide the source for the feminine adjectives in Tocharian, as in other ancient and modern IE languages (BALLES 2009: 18; see §4ff. above).

Due to non-replacement or partial replacement of inherited form-function relations by their innovative counterparts, the Tocharian gender system yields a patchwork of synchronically persistent retentions of the collective category and innovated feminine gender distinctions, thus allowing a glimpse of the incipient morphologization of the derivational collective as an inflectional feminine (sg.). The Tocharian evidence demonstrates that the gradual conversion of adjective-abstracts in PIE **-ih₂* into feminine adjectives played a primary role in that process. For the same Indo-European formant **-i-h₂*, Tocharian preserves the inherited gender-indifferent semantics of the derivational abstract-collective alongside their innovative inflectional employment as markers of (natural and grammatical) feminine gender and agreement, contrast e.g. PIE **-mn-ih₂* > substantival gender-indifferent B *plak-tukāñña* ‘doorkeeper, warden’ (male and female reference) with inflectional feminine in adjectival B *klyomña* ‘noble’. In short, the seeds of the Indo-European feminine have not yet fully sprouted in Tocharian, where collective and abstract formations are in a state of transition between derivation and inflection.

References

- Balles, Irene 2004a. Zur Rekonstruktion des früh-urindogermanischen Nominalklassensystems. In: *Per Aspera ad Asteriscos*. Studia Indogermanica in honorem Jens Elmegård Rasmussen, ed. Adam Hyllested, Anders Richardt Jørgensen, Jenny Helena Larsson et Thomas Olander, pp. 43-57. Innsbruck: Innsbrucker Beiträge zur Sprachwissenschaft.
- Balles, Irene 2004b. Individuativa-Kontinuativa-Unterscheidung im Indogermanischen. In: *Historisch-Vergleichende Sprachwissenschaft und germanische Sprachen*. Akten der 4. Neulandtagung der Historisch-Vergleichenden Sprachwissenschaft in Potsdam 2001, hrsg. von Matthias Fritz und Ilse Wischer, pp. 9-33. Innsbruck: Innsbrucker Beiträge zur Sprachwissenschaft.
- Balles, Irene 2005. Indogermanische Nomina agentis: Probleme und Lösungsansätze. Linguistische Arbeitsberichte 83. Indogermanische Nomina agentis. Herausgegeben von Irene Balles und Rosemarie Lühr, pp. 7-70. Leipzig: Institut für Linguistik der Universität Leipzig.
- Balles, Irene 2009. Zu den *i*-stämmigen Adjektiven des Lateinischen. In: *Protolanguage and Prehistory*. Akten der XII. Fachtagung der Indogermanischen Gesellschaft, hrsg. von Rosemarie Lühr und Sabine Ziegler, pp. 1-26. Wiesbaden: Reichert.
- Brugmann, Karl 1930. *Kurze Vergleichende Grammatik der indogermanischen Sprachen*. Berlin, Leipzig: de Gruyter.
- Cowgill, Warren 1970. The nominative plural and preterit singular of the active participles in Baltic. In: *Baltic Linguistics*, ed. by Thomas F. Magner and William R. Schmalstieg. University Park, London: The Pennsylvania State University Press, pp. 23-37 [= Cowgill, *Collected Writings* 451-461].
- Carling, Gerd 2003a. New look at the Tocharian B medical manuscript IOL Toch. 306 (Stein Ch.00316a2) of the British Library—Oriental and India Office Collections. *Historische Sprachforschung* 116.75-95.
- Carling, Gerd 2003b. Fragments bilingues du Yogaśataka. Révision commentée de l'édition de Jean Filiozat. *Tocharian and Indo-European Studies* 10. 37-68.
- Dietz, Rudolf 1981. *Der Gebrauch der Partizipia Präsens im Tocharischen. Eine syntaktische Untersuchung*. Frankfurt a. M., Dissertation.
- Dunkel, George E. 1998. On the short vowel in the name Ἡρακλῆς. *Museum Helveticum* 55. 76-83.
- Eichner, Heiner 1992. Anatolian. In: *Indo-European Numerals*. Edited by Jadranka Gvozdanović, pp. 29-96. Berlin, New York: Mouton, de Gruyter.

- Gotō, Toshifumi 1987. *Die „I. Präsensklasse“ im Vedischen. Untersuchung der vollstufigen thematischen Wurzelpräsentia*. Wien: Verlag der Österreichischen Akademie der Wissenschaften.
- Hackstein, Olav 2010a. *Apposition and Nominal Classification in Indo-European and Beyond*. (Sitzungsberichte der Phil.-Hist. Klasse 798; Veröffentlichungen zur Iranistik 56.) Wien: Österreichische Akademie der Wissenschaften.
- Hackstein, Olav 2010b. Lateinisch *omnis*. In: *Ex Anatolia Lux. Anatolian and Indo-European Studies in Honor of H. Craig Melchert on the Occasion of His Sixty-fifth Birthday*, ed. by Ronald Kim, Norbert Oettinger, Elisabeth Rieken and Michael Weiss, pp. 75-84. Ann Arbor: Beech Stave Press.
- Hajnal, Ivo 1993. Das oskische Pränomen *Pukalatúí*. In: *Oskisch-Umbrisch: Texte und Grammatik*, hrsg. von Helmut Rix, pp. 125-142. Wiesbaden: Reichert Verlag.
- Hajnal, Ivo 1994. Die lykischen *a*-Stämme: Zum Werdegang einer Nominalklasse. In: *In honorem Holger Pedersen*, ed. by Jens E. Rasmussen, pp. 135-171. Wiesbaden: Reichert.
- Hajnal, Ivo 1998. Mykenisches und homerisches Lexikon. Übereinstimmungen, Divergenzen und der Versuch einer Typologie. Innsbruck: Innsbrucker Beiträge zur Sprachwissenschaft.
- Hajnal, Ivo 2000. Der adjektivische Genitivausdruck der luwischen Sprachen (im Lichte neuerer Erkenntnis). In: *125 Jahre Indogermanistik in Graz*, hrsg. von Michaela Ofitsch & Christian Zinko, pp. 159-184. Graz: Leykam.
- Hardarson, Jón Axel 1987a. Zum urindogermanischen Kollektivum. *Münchener Studien zur Sprachwissenschaft* 48. 71-113.
- Hardarson, Jón Axel 1987b. Das urindogermanische Wort für Frau. *Münchener Studien zur Sprachwissenschaft* 48. 115-137.
- Hartmann, Jens-Uwe 1987. *Das Varṇārhavarṇastotra des Mātṛceta*. Herausgegeben und übersetzt von Jens-Uwe Hartmann. (Sanskrittexte aus den Turfanfunden XII.) Göttingen: Vandenhoeck & Ruprecht.
- Hilmarsson, Jörundur 1986. *Studies in Tocharian Phonology, Morphology and Etymology*. (Dissertation Leiden 1986.) Reykjavík.
- Hilmarsson, Jörundur 1991. *The Nasal Prefixes of Tocharian*. Reykjavík.
- Hilmarsson, Jörundur 1996. *Materials for a Tocharian Historical and Etymological Dictionary*. Reykjavík.
- Hoffner, Harry and Craig Melchert 2008. *A Grammar of the Hittite Language*. Part I: Reference Grammar. Winona Lake, Indiana: Eisenbrauns.
- Ji Xianlin, Werner Winter and Georges-Jean Pinault 1998. *Fragments of the Tocharian A Maitreyasamiti-Nāṭaka of the Xinjiang Museum, China*. Berlin / New York: Mouton de Gruyter.

- Kim, Jeong-Soo 2005. Die *-ana*-Bildung im RV und AV. Ein Fall von Sortenverschiebung im Altindischen. *Linguistische Arbeitsberichte* 83. Indogermanische Nomina agentis. Herausgegeben von Irene Balles und Rosemarie Lühr, pp. 269-289. Leipzig: Institut für Linguistik der Universität Leipzig.
- Kim, Jeong-Soo 2010. *Untersuchungen zu altindischen Abstrakta und Adjektiven im Rigveda und Atharvaveda*. Die primären *a*-Stämme und die *ana*-Bildungen. Bremen: Hempen Verlag.
- Kim, Ronald I. 2009. The feminine gender in Tocharian and in Indo-European. In: *East and West*. Papers in Indo-European Studies, ed. by Kazuhiko Yoshida and Brent Vine, pp. 69-87. Bremen: Hempen Verlag.
- Klein, Jared 1992. Review of Alfred Bammesberger, *Die Morphologie des urgermanischen Nomens*. (Heidelberg: Winter, 1990.) *Kratylos* 37. 136-142.
- Kluge, Friedrich and Elmar Seebold 1989. *Etymologisches Wörterbuch der deutschen Sprache*. Berlin, New York: de Gruyter.
- Krause, Wolfgang 1955: *Handbuch der Orientalistik*, Band 4, Abschnitt 3: Tocharisch. Leiden.
- Krause, Wolfgang & Werner Thomas 1960. *Tocharisches Elementarbuch*. Heidelberg: Winter.
- Leukart, Alex 1994. *Die frühgriechischen Nomina auf -tās und -ās*. Wien: Verlag der Österreichischen Akademie der Wissenschaften.
- Litscher, Roland (2009). Die Genese des dritten Genus, in: *Protolanguage and Prehistory*. Akten der XII. Fachtagung der Indogermanischen Gesellschaft vom 11. bis 15. Oktober 2004 in Krakau, hrsg. von Rosemarie Lühr und Sabine Ziegler, pp. 271-285. Wiesbaden: Reichert.
- Lipp, Reiner 2009. *Die indogermanischen und einzelsprachlichen Palatale im Indo-iranischen*. Band II. *Thorn-Probleme, indoiranische Laryngalvokalisation*. Heidelberg: Winter.
- Lühr, Rosemarie 1991. Analogische „formae difficiliores“. *Historische Sprachforschung* 104. 170-185.
- Lühr, Rosemarie 2000. *Die Gedichte des Skalden Egill*. Dettelbach: J. H. Röhl.
- Malzahn, Melanie 2000. Toch. B *ñaktene* „Götterpaar“ und Verwandtes. *Tocharian and Indo-European Studies* 9. 45-52.
- Malzahn, Melanie 2010. *The Tocharian Verbal System*. Leiden, Boston: Brill.
- Malzahn, Melanie 2011. Speaking on tongue—the Tocharian B nouns with an oblique singular in *-a*. *Tocharian and Indo-European Studies* 12. 83-109.
- Matzinger, Joachim 2006. *Der altalbanische Text Mbsuame e Krështerë (Dottrina cristiana) des Lekë Matrënga von 1592. Eine Einführung in die albanische Sprachwissenschaft*. Dettelbach: Röhl.

- Meier-Brügger, Michael 2006. Sprachliche Beobachtungen. In: *Die neuen Linear B-Texte aus Theben*, hrsg. von Sigrid Deger-Jalkotzy und Oswald Panagl, pp. 111-118. Wien: Verlag der Österreichischen Akademie der Wissenschaften.
- Meillet, Antoine 1930-31. Essai de chronologie des langues indo-européennes. *BSL* 32. 1-28.
- Meiser, Gerhard 1986. *Lautgeschichte der umbrischen Sprache*. Innsbruck: Innsbrucker Beiträge zur Sprachwissenschaft.
- Melchert, Craig H. 2000. Tocharian plurals in *-nt-* and related phenomena. *Tocharian and Indo-European Studies* 9. 53-75.
- Melchert, H. Craig 2004. *A Dictionary of the Lycian Language*. Ann Arbor, New York: Beech Stave.
- Meyer-Lübke, Wilhelm 1935. *Romanisches etymologisches Wörterbuch*. 6. unveränderte Auflage, unveränderter Nachdruck der 3., vollst. neubearb. Aufl. 1935. Heidelberg: Winter, 1992.
- Nikolaev, Alexander 2010a. Time to gather stones together: Greek λάσς and its Indo-European background. In: *Proceedings of the 21st Annual Indo-European Conference*, ed. by Stephanie W. Jamison, H. Craig Melchert, Brent Vine, pp. 189-206. Bremen: Hempen.
- Nikolaev, Alexander 2010b. Hittite *mēnahḫanda*. *Journal of the American Oriental Society* 130,1. 63-71.
- Nussbaum, Alan J. 1997. A note on Hesychian τέρυ and τέρυας. In: *Festschrift for Eric P. Hamp*, ed. by Douglas Q. Adams, Volume II. 110-119. Washington: Institute for the Study of Man.
- OED = Oxford English Dictionary. Second edition. Oxford: Oxford University Press.
- Panagl, Oswald 1980. Die verbale Rektion deverbaler Substantive im Licht der neueren Wortbildungstheorie. In: *Symmicta Philologica Salisburgensia. Georgio Pfliegerstorffer Sexagenario Oblata*. Herausgegeben von Joachim Dalfen, Karl Forster, Maximilian Fussl, Wolfgang Speyer, pp. 291-307. Rom: edizioni dell'ateneo.
- Peters, Martin 1991. Ein tocharisches Auslautproblem. *Die Sprache* 34. 242-244.
- Pinault, Georges-Jean 1984. Une lettre de monastère du fonds Pelliot Koutchéen, *Revue de la Bibliothèque Nationale* 11, 21-33.
- Pinault, Georges 1996. Aspects de la reconstruction de l'abstrait en indo-européen. In: *Les noms abstraits. Histoire et théorie*. Actes du colloque de Dunkerque (15-18 septembre 1992). Textes réunis par Nelly Flaux, Michel Glatigny, Didier Samain, pp. 199-211. Lille: Presses Universitaires du Septentrion.

- Pinault, Georges-Jean 1998. Economic and administrative documents in Tocharian B from the Berezovsky and Petrovsky collections, *Manuscripta Orientalia*, Vol. IV, No. 4, pp. 3-20. St. Petersburg: Russian Academy of Sciences, Institute of Oriental Studies.
- Pinault, Georges-Jean 2007. Concordance des manuscrits tokhariens du fonds Pelliot. In: *Instrumenta Tocharica*, ed. by Melanie Malzahn, pp. 163-219. Heidelberg: Winter.
- Pinault, Georges-Jean 2008. *Chrestomathie tokharienne. Textes et Grammaire*. Leuven, Paris: Peeters.
- Pinault, Georges-Jean 2010. Le pronom d'ipséité en tokharien. In: *Typologie et comparatisme. Hommages offerts à Alain Lemaréchal*. Textes réunis par Injoo Choi-Jonin, Marc Duval et Olivier Soutet, pp. 351-365. Leuven, Paris: Peeters.
- Pinault, Georges-Jean 2011. Tocharian *-nt-* participles and agent nouns. In: *Archaism and Innovation in Tocharian*. Edited by Olav Hackstein and Ronald I. Kim, 171-196. Vienna: Österreichische Akademie der Wissenschaften.
- Pușcariu, Sextil 1975. *Etymologisches Wörterbuch der rumänischen Sprache*. Lateinisches Element mit Berücksichtigung aller romanischen Sprachen. 2. unveränderte Auflage. Heidelberg: Winter.
- Rau, Jeremy 2009. *Indo-European Morphology: The Decads and the Caland System*. Innsbruck: Innsbrucker Beiträge zur Sprachwissenschaft.
- Remmer, Ulla 2010 [2011]. Die vedischen Maskulina mit *devī*-Flexion und die *ī*-Motion in avestischen Frauennamen. *Historische Sprachforschung* 123, 157-166.
- Rheinfelder, Hans 1967. *Alfranzösische Grammatik*. 2. Teil: *Formenlehre und Syntax*. 2. Auflage 1976. München: Hueber.
- Rieken, Elisabeth 2005. Neues zum Ursprung der anatolischen *i*-Mutation. *Historische Sprachforschung* 118, 48-74.
- Ringe, Don 1996. *On the Chronology of Sound Changes in Tocharian*. New Haven, Connecticut: American Oriental Society.
- Rix, Helmut 1995. Römische Personennamen. In: *Namenforschung. Ein internationales Handbuch zur Onomastik*. 1. Teilband, pp. 724-732. Berlin, New York: de Gruyter.
- Schaefer, Christiane 1994. *Das Intensivum im Vedischen*. Göttingen: Vandenhoeck & Ruprecht.
- Schaffner, Stefan 2001. *Das Vernersche Gesetz und der innerparadigmatische grammatische Wechsel des Urgermanischen im Nominalbereich*. Innsbruck: Innsbrucker Beiträge zur Sprachwissenschaft.
- Schmidt, Johannes 1889. *Die Pluralbildungen der indogermanischen Neutra*. Weimar.

- Schmidt, Klaus T. 1975. Probleme der tocharischen Verbal- und Nominalflexion. In: *Flexion und Wortbildung*, hrsg. von Helmut Rix, pp. 287-295. Wiesbaden: Reichert.
- Schmidt, Klaus T. 2001a. Entzifferung verschollener Schriften und Sprachen. Dargestellt am Beispiel der Kučā-Kharoṣṭhi Typ B und des Kučā-Prakrits. *Göttinger Beiträge zur Asienforschung* 1. 7-35.
- Schmidt, Klaus T. 2001b: Die westtocharische Version des Araṇemi-Jātakas in deutscher Übersetzung. In: *Silk Road Studies V. De Dunhuang à Istanbul. Hommage à James Russell Hamilton*, présenté par Louis Bazin et Peter Zieme, pp. 299-327. Turnhout: Brepols.
- Schwyzler, Eduard 1950. *Griechische Grammatik*. Band II: Syntax und syntaktische Stilistik. München: C. H. Beck.
- Seebold, Elmar 1969. Germanisch **sanþ-/sund-* ‚seiend, wahr‘. *Die Sprache* 15. 14-45.
- Shackleton-Bailey, D. R. 1951. *The Śatapatha Brāhmaṇa of Mātrceṭa*. Cambridge.
- Sims-Williams, Nicholas 1997. The denominative suffix *-ant-* and the formation of the Khotanese transitive perfect. In: *Sound Law and Analogy*. Papers in Honor of Robert S. P. Beekes on the Occasion of his 60th Birthday, ed. by Alexander Lubotsky, pp. 317-325. Amsterdam, Atlanta: Rodopi.
- Stüber, Karin 2007. Zur Entstehung des Motionssuffixes **-ih₂*. *International Journal of Diachronic Linguistics* 4,1. 1-24.
- Stüber et al. 2009 = Karin Stüber, Thomas Zehnder, Ulla Remmer 2009. *Indogermanische Frauennamen*. Heidelberg: Carl Winter.
- Strunk, Klaus 1994. Grammatisches und natürliches Geschlecht in sprachwissenschaftlicher Sicht. In: *Frau und Mann: Geschlechterdifferenzierung in Natur und Menschenwelt*. Interdisziplinäres Forum. Herausgegeben von Venanz Schubert, pp. 141-164. St. Ottilien.
- Szemerényi, Oswald 1990. *Einführung in die vergleichende Sprachwissenschaft*. 4., durchgesehene Auflage. Darmstadt: Wissenschaftliche Buchgesellschaft.
- Thomas, Werner 1964. *Tocharisches Elementarbuch*. Heidelberg: Carl Winter.
- Thomas, Werner 1976. Ein weiteres tocharisches Udānavarga-Fragment. *Zeitschrift für Vergleichende Sprachforschung* 90. 104-113.
- Thomas, Werner 1995. Zur tocharischen Syntax: adverbiales A *māk*, B *māka* ‚viel‘. Wiesbaden: Steiner.
- Tichy, Eva 1993. Kollektiva, Genus femininum und relative Chronologie im Indogermanischen. *Historische Sprachforschung* 106. 1-19.
- Tichy, Eva 2000. *Indogermanisches Grundwissen*. Bremen: Hempen Verlag.

- Vine, Brent 2002. On full-grade *-ro-formations in Greek and Indo-European. In: *Indo-European Perspectives*, ed. by Mark S. Southern, pp. 329-350. Washington: Institute for the Study of Man.
- Vine, Brent 2004. On PIE full grades in some zero-grade contexts: *-tí-, *-tó-. In: *Indo-European Word Formation*, ed. by James Clackson and Birgit Anette Olsen. Pp. 357-379. Copenhagen: Museum Tusulanum.
- Wackernagel, Jacob 1912. Über einige antike Anredeformen. *Programm zur akademischen Preisverteilung*, pp. 3-32. Göttingen. (= *Kleine Schriften* II 970-999.)
- Wackernagel, Jacob 1928. *Vorlesungen über Syntax*. Zweite Reihe. Zweite Auflage. Basel: Emil Birkhäuser.
- Wackernagel, Jacob 1929/30. *Altindische Grammatik. Band III: Nominalflexion — Zahlwort – Pronomen*. Unveränderter Nachdruck 1975. Göttingen: Vandenhoeck & Ruprecht.
- Watkins, Calvert 1975. Die Vertretung der Laryngale in gewissen morphologischen Kategorien in den indogermanischen Sprachen Anatoliens, in: *Flexion und Wortbildung*. Akten der V. Fachtagung der Indogermanischen Gesellschaft, pp. 358-378. Wiesbaden: Reichert.
- Weiss, Michael 2009. *Outline of the Historical and Comparative Grammar of Latin*. Ann Arbor, New York: Beech Stave.
- Widmer, Paul 2006. Eine restrukturierte Wortbildungsregel: Die neutralen Verbalnomina des Typs *pak-a- n. 'Dach' im Germanischen. *Sprachwissenschaft* 31,4. 431-447.
- Winter, Werner 1962. Nominal and pronominal dual in Tocharian. *Language* 38. 111-134. [= *Kleine Schriften* I 69-92.]
- Zehnder, Thomas 2010: *Die hethitischen Frauennamen. Katalog und Interpretation*. Wiesbaden: Harrassowitz.
- Zeilfelder, Susanne 2001. *Archaismus und Ausgliederung. Studien zur sprachlichen Stellung des Hethitischen*. Heidelberg: Winter.

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