Indo-European nominal classification: From abstract to feminine

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1.   Introduction[1]

In current research on the Indo-European gender system, it is generally assumed that the feminine accidentally originated based on a small number of words, or even a single word, a collective, which could be re-interpreted as referring to female human beings. As for the chronology of the change undergone by the suffix $*-h_2$, two possibilities are suggested in the literature: either the suffix had already become inflectional before spreading to the feminine gender (e.g. Litscher 2004), or it was still derivational, in spite of being integrated into the neuter paradigms and of triggering agreement on demonstrative pronouns (e.g. Tichy 1993). The first explanation hits into major morphological problems, as evidenced for example by Clackson: "...it is not clear how the collective ending $*-h_2$ could at once become the marker of a new declension class, but retain its old function as the marker of neuter plural. In the parallel case in Romance, some neuter plurals were reinterpreted as feminine singular nouns, but this reinterpretation could only happen because the neuter was lost as a category altogether." (2007: 107). Indeed, such an approach implies that the once derivational suffix $*-h_2$, after becoming a case ending within the paradigms of neuter nouns, was reinterpreted as a theme vowel constitutive of another set of paradigms, which had nothing to do with neuters. The alternative approach, according to which the suffix spread from collective to feminine while still derivational, is

not without problems either, considering that derivation does not normally trigger

agreement in the Indo-European languages. Both approaches further have to deal with the

problem of explaining how the semantic extension from collective to feminine came about.

In Luraghi (forthcoming), I suggested that the two developments of the suffix $*\text{-}h_2$,

i. e. inflectional ending indicating neuter plural and marker of an inflectional class

connected with the feminine gender, must be conceived of as independent of each other.

Following this approach, the suffix, which in origin formed abstract nouns, underwent a

semantic extension to collective and as such was incorporated into the paradigms of neuter

nouns. Independent of this development, abstract nouns with the suffix were analyzed as

constituting a noun class (=gender) with an intermediate degree of individuation between

inanimate and animate. Later, the extramorphological property[2] associated with this gender

changed from abstraction to feminine.

Such an approach does not raise morphological problems, and also eliminates the

need for semantic explanations that connect the feminine to the collective[3]. Besides, it does

not assume an accidental origin of a word class based on a single word, or on a small

number of words at the best, but it views the creation of a new word class as both

semantically and morphologically motivated, whereby a class of words sharing a common

semantic feature and all marked by the same derivational suffix are reinterpreted as a word

class within an already existing gender system, and the suffix turns into a theme vowel.

Thus, change from abstract to feminine does not involve single words, but rather a whole

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[2] I use the terminology in Wurzel 1989.

[3] Note that if the two developments are viewed as connected, the change of the suffix into the
nominative/accusative neuter plural must necessarily precede the change to gender marker, since the first
change, but not the latter, is attested to in Anatolian. By disconnecting the two developments, the problem of
relative chronology raised by Anatolian is eliminated.

word class.

In the present paper, I will elaborate on this theory, especially focusing on semantic properties of various types of abstract nouns and their distribution across genders in the Indo-European languages. I will also survey the cross linguistic frequency of semantic properties connected with noun classes and attempt an explanation for the shift of the abstract gender to feminine. In this way, I hope to eliminate any kind of semantic motivation that connects the concept of feminine to other concepts.

Before proceeding to present my argument, I would like to recall what by now should be a commonly accepted notion, i.e. that genders, and noun classes in general, are prototypical categories[4]. As argued in Corbett 1991:13, virtually in all gender systems genders contain a 'semantic residue', which "comprises nouns whose gender is not assigned according to a positive semantic criterion". The existence of such a residue accounts for possible gender assignment opacity at all stages: hence, to look for complete correspondence of some semantic feature and a specific gender is pointless at any stage.

2.   Some properties of abstract nouns

2.1.   *Semantic extension*

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[4] Prototypical categories, as defined for example in Taylor 1989, are categories whose membership is not based on the presence vs. absence of a specific (number of) feature(s), separated from each other by clear-cut borders, such as 'classical' categories. Rather, prototypical categories have fuzzy borders; membership is graded: only the center of the category (the 'prototype') presents all relevan features, while other members may share them to a partial extent only. Crucially, not all members of a prototypical category necessarily share the same features: it may even be the case that two members of a prototypical category do not share any feature with each other.

Abstract nouns may be derivational or not. For example, names of emotions, such as *love* or *fear*, often do not have derivational suffixes in the Indo-European languages, nor is it clear whether they can be said to derive from the corresponding verbs, rather than the other way around (as indeed is often the case). In this section I will focus on nouns which are clearly deverbal.

Deverbal abstract nouns are nominalizations based on verbs. Since the word 'abstract' can create misunderstanding, nouns discussed in this paper should better be called 'event nouns'[5]. Event nouns refer to the same event (action, process, state) indicated by the verb, but they do so in a non-prototypical way, by attributing to an event features typical of concrete entities. Events are by their nature unbound, and take place in time. Concrete entities, on the other hand, are bound and time stable. Event nouns represent events as bound entities[6]. They tend to be polysemous, and may frequently have both an event and a result interpretation, as in *forgery*, *examination*, *construction*, and so on (see Grimshaw 1990 among others). Extension of abstract nouns to collective is also known from several languages. In English, for example, a noun such as *audience* may have an event interpretation and indicate 'the act of hearing', but it most frequently refers to 'a group of spectators'. In Italian, several deverbal event nouns in *-za* exhibit such polysemy: *discendenza* 'the process of descending', 'descendents'; *concorrenza* 'competition', 'competitors', and so on.[7]

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[5] In Indo-European linguistics, the term 'abstract' is often used in reference to nouns that contain special derivational suffixes, even though they may refer to concrete entities, such as in the case of many so-called 'result' nouns, see below, section 2.3.

[6] See Langacker (1991: 59-100) for a thorough discussion of prototypical features of nouns and verbs, and in particular pp. 97-100 on the properties of abstract nouns.

[7] See Luraghi (forthcoming) for examples which do not involve human collectives.

The above remarks aim to clarify that extension from abstract to concrete, or from event to result or to some other entity involved in the event[8], is a common phenomenon in spite of the fact that, generally speaking, semantic extension seems to proceed contrariwise, from concrete to abstract. Event nouns are a well attested class of nouns across languages and, among other things, they also serve a precise discourse function, that is, they make it possible to refer anaphorically to an event as to an individuated entity (see Panagl 2002: 59-60). Being 'abstract' to start with, their meaning can only extend to concrete. It must be noted further that this is a quite natural type of change: prototypical nouns refer to concrete entities, and event nouns are non-prototypical; extension from abstract to concrete moves in the direction of higher prototypicality[9].

2.2. *Degrees of abstraction and gender*

Not all abstract nouns are abstract to the same extent. For example, abstract nouns can indicate an activity in general, or a single instantiation of an activity, in which case they are usually countable. As an example, consider the following Italian sentences:

(1)   *Il **nuoto** fa bene alla salute.*

        "Swimming is good for your health."

(2)   *Quest'estate al mare ho fatto molte **nuotate.***

        "Last summer at the beach I had many swims."

The noun which indicates the activity in general is often a verb form. In English we find the gerund, while in many Indo-European languages it is the infinitive that fulfills this function.

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[8] See Vogel (2005) quoted below, sec. 2.2.

[9] See Panagl 1985 and 2002: 70, where this same matter is discussed in terms of naturalness.

Different types of event noun are associated with different genders in the Indo-European languages. In particular, in languages that have the neuter gender, infinitives are neuter when they are used as arguments, as is the case, for example, in Latin or Greek. This is shown by articles, if available, as well as by the fact that and anaphoric pronouns that refer back to infinitives are typically neuter.

Suffixed event nouns may be of all three genders, but they are most often feminine. In German, the three genders tend to associate with different degrees of abstraction, with masculine deverbal root nouns often only having a concrete interpretation, as in *das Sitzen* 'the act of sitting', neuter, *die Sitzung* 'the session', feminine, *der Sitz* 'the seat', masculine. While the neuter noun (the infinitive) indicates a state and cannot be pluralized, the feminine noun indicates a specific event, and as such is countable (*die Sitzungen*). The masculine *Sitz* is most frequently used as a concrete noun and, in contemporary German, it has lost the meaning of event noun[10]. The situation is not always so neat, since many feminine nouns also have a concrete meaning, as in *die Wohnung* 'the apartment', and masculine nouns often have an event interpretation, as in *der Schritt* 'the step'. In any case, masculine and feminine deverbal nouns always refer to well individuated entities, both if they are concrete and if they are abstract, as shown by the fact that they are countable, as opposed to neuter deverbal nouns, which refer to unbound states or activities.

Based on similar observations, Vogel speaks of higher or lesser affinity of deverbal nouns with verbs (highest for neuter event nouns) and prototypical nouns (highest for masculine result nouns): "… deverbal nouns constitute a continuum with regard to 'nouniness', which is why some are more 'nouny' and others are more 'verby'. … Very 'nouny' deverbal nouns should resemble primary nouns with the feature [+count] …

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[10] In contemporary German the word *Sitz* has the abstract interpretation 'the way of sitting'.

nominalization can even 'turn' into one of their own arguments - a process called 'reduction' … reduction and concretization: *(der) Treff* 'meeting' or 'place where one meets (locative reduction)', *(der) Abwasch* 'washing-up' or 'things that one has to wash up'." (2005: 73-5). Note that the more 'verby' character of neuter event nouns, which are in this case, as already remarked, infinitives, is also shown by the fact that they usually retain argument structure, while other types of event noun do not.

If we go back to the three types of noun described above and consider them from the point of view of cognitive complexity, it turns out that nouns such as *die Sitzung* are cognitively more complex that the others. Indeed, neuter infinitives used as arguments indicate a type of event as such: their reference is close to the reference of verbs, that is, the prototypical part of speech used to indicate events. Masculine nouns often indicate concrete entities, which means that they are prototypical nouns. However, feminine event nouns do refer to events, but represent them as bound entities: thus, they also share a property which is typical of concrete nouns. Note that higher cognitive complexity in this case is matched by higher morphological complexity, caused by the occurrence of a derivational suffix.

2.3.   Abstract nouns and gender in Indo-European

Deverbal event nouns, or abstract nouns, are distributed across all genders in the Indo-European languages; however, some regularities emerge from the data[11]. In the first place, the gender of infinitives, when used as arguments, is always neuter (for languages which have lost the neuter gender see below, section 3.1). Among suffixed deverbal nouns, there is a well known tendency to belong to the feminine gender. A notable exception is constituted by deverbal nouns in *–tu*, which are masculine and contrast with feminine

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[11] See Matasović (2004: 79-163) on gender assignment rules in the Indo-European languages.

nouns in *–*ti*. A close inspection shows that *–*tu* nouns are similar to German masculine root deverbal nouns: in the first place, they often refer to concrete entities, as for example in Latin *portus* 'haven', *exercitus* 'army', *fructus* '(piece of) fruit', Sanskrit *gatu* 'path': this is virtually never the case for *–*ti* nouns. Besides, abstract nouns in *–*tu* mostly indicate well defined referents, such as in *partus* 'delivery', *sumptus* 'expence, cost', *eventus* 'occurrence, accident', and, when both a *–*tu* and a *–*ti* derivate are available, they contrast in terms of relative degree of abstraction (further discussion in Matasović 2004: 134).

Although it must be noted that gender may be unstable in language change, and gender change in the case of inanimate nouns looks quite unpredictable (one only need think of gender change from Latin to the Romance languages), comparison across the Indo-European languages attests of a situation in which most abstract nouns were either feminine or neuter in Late PIE (Matasović 2004: 124). This is in accordance with the fact that, if abstract nouns developed into an independent noun class in PIE, we should expect to find them either among feminine nouns, or among neuters, rather than among masculines.

In this connection, gender of Hittite abstract nouns is of particular interest, assuming that the two gender system of Hittite represents the original situation of PIE before the creation of the third gender. In Hittite, infinitives cannot be used as arguments: this is the role of verbal nouns in *–war* or *–atar*, which are neuter and preserve argument structure. Virtually all Hittite verbs can take these suffixes, that is, the formation of such verbal nouns is as productive as inflection: this is not true of other types of deverbal nouns. Verbal nouns in *–war* and *–atar* are by the most part true abstract, even though some concrete nouns also occur (especially in *–atar*, see Matzinger 2008: 19-23). Hittite also has a number of other deverbal event nouns formed by addition of various suffixes, some of

which belong to the common gender, while others are neuter. Similar to German, such nouns may indicate events, or they may have concrete reference. They do not preserve argument structure: they are thus more 'nouny' than verbal nouns (see Zeilfelder 1999).

3. Gender

3.1. *Associations of gender and semantic properties*

As we have seen above, besides being associated with sex (positively, in the case of masculine and feminine, or negatively in the case of neuter), genders tend to be associated with different degrees of abstraction in the Indo-European languages. This is not the only possible association. In various languages, one can observe that some semantically defined groups of nouns are associated with a gender. Thus, ships are feminine in English, cars are feminine in Italian, indeclinable names of cities and towns are masculine in Russian, trees are feminine in Latin, and so on.

None of these semantic features are felt as strongly associated with gender as referential gender, or sex, is in the above mentioned languages, or indeed anywhere in the Indo-European languages: however, the existence of semantically defined groups of words consistently associated with a specific gender indicates that the classificatory potential of gender may be exploited for different purposes (see Doleschal 2006).

3.2. *Default genders*

The notion of 'default gender' is explored in Corbett and Fraser 2000. The authors call attention to the fact that, with indefinites, masculine is regularly used in the Indo-European languages. Compare for example Russian:

(3)   *Kto **sdelal** eto?*

        "Who did(masc.) this?"

or Italian:

(4)   *E' **venuto qualcuno***?

        "Did anyone(masc.) come(masc.)?"

        Neuter can also function as a default gender. I have already mentioned gender

assignment to infinitives: note that, at least in the ancient Indo-European languages, there is

no morphological motivation for this. Discourse referents are also assigned neuter gender:

(5)   **Alles was** *du sagst ist falsch.*

        "Whatever you say is wrong."

Thus, masculine is the default gender in the case of reference to human beings, while

neuter is the default gender for reference to certain inanimate entities.

        In the Romance languages, which have lost the neuter gender, the default function

of the neuter has been taken over by the masculine:

(6)   **Tout ce** *que tu dis est* **faux**.

        "Whatever you say is wrong."

        In sum, whereas masculine and neuter have a function as default genders, feminine

does not: it always seems to add some more information, that is, to be more 'marked', or

cognitively more complex, to such an extent that, when one of the default genders

disappears, it cannot even take over its function[12]. Higher cognitive complexity is the

feature indicated as distinctive of suffixed event nouns in section 2.2. Similar to this type of

event nouns, feminine nouns are often also more complex morphologically in the Indo-

European languages, since they may involve the occurrence of a derivational suffix. This

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[12] On possible default genders in non-Indo-European languages see Corbett (1991: 203-18).

matching of derived abstract with feminine nouns is not surprising: rather, it logically follows from the historical development of the feminine gender out of an (earlier) class of abstract nouns.

3.3. Gender systems across languages

In section 3.1 I argued that, even though genders are most perspicuously associated with sex in the Indo-European languages, they can also be associated with various semantic properties of nouns. In this section, I will briefly survey gender systems in various languages, in order to show what semantic properties can be as basic as referential gender, or can be associated with it, in systems of nominal classification[13].

3.3.1. Sex and animacy

In the first place, many languages have two gender systems based on animacy. Such a system, consisting of a neuter and a non-neuter, or common gender, is also reconstructed for PIE before the creation of the third gender. Corbett (1991: 11) describes another type of two gender system, based on a mixed animacy and sex distinction, in Diyari, an Australian language, which has a feminine gender comprising nouns that refer to female human beings, and a second gender which includes male humans and everything else.

In three gender systems, such as the typical system of Indo-European languages, animacy interacts with sex, since there are normally two genders for animates (typically, masculine and feminine) and one for inanimates. Such a system is described in Corbett 1991:8-10 for Tamil, where we find a class for male humans or gods, one for female humans or goddesses, and one for all other entities. Apparently, no three gender systems are reported to exist which only include a gender for human/animate and two genders for

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[13] See Corbett (1991: 30-2) on possible semantic criteria that underlie gender systems.

(different types of) inanimate.

Corbett also describes a number of four gender systems. They may have three genders for animate and one for inanimate, as for example Lak (Corbett 1991: 24-6), which has a gender for male rational, one for female rational, one for other animate, and a fourth for inanimate, or two for animate and two for inanimate, as is the case in Dyrbal, where one distinguishes a masculine, a feminine, a special gender for non-flesh food, and a gender for all other nouns (Corbett 1991: 15-8)[14]. Russian also has four agreement classes, with a split between animate and inanimate within the masculine gender: in practice, the inanimate masculine constitutes a second, semantically motivated neuter.

To sum up, it appears that, in languages with a limited number of genders, two different classes for inanimate exist only in systems that have two classes for human.

3.3.2. Mass/count, concrete/abstract, configuration and shape

Apart from animacy and sex, the most frequently occurring feature in nominal classification systems, and the most relevant for the present discussion, is the mass/count distinction. Such distinction often constitutes a sizable part of a noun class also associated with another semantic property (typically animacy or sex). A well known example of association between features discussed in this section and sex distinctions is the Arabic gender system. In Arabic, the feminine gender, formed with the suffix *–at*, includes female animates (line 4), as well as abstract (line 1) and collective nouns (line 3), while the masculine includes male animates and inanimate count nouns. Besides, some masculine mass nouns have a feminine singulative form (line 2, note that the form *dam'-un* is considered a special type of plural in the Arabic grammatical tradition), as shown in Table

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[14] Both in Lak and in Dyrbal, gender assignment is not strictly semantic, and genders also contain a semantic residue, at least in part.

1.[15]:

TABLE 1: THE SUFFIX -AT IN ARABIC

1. *'arafa* 'know'	*ma'erif-at-un* 'knowledge'
2. *dam'-un* 'tears'	*dam'-at-un* 'tear'
3. *hayawān-un* 'animal'	*hayawān-āt-un* 'animals'
4. *kalb-un* 'dog'	*kalb-at-un* 'she dog'

Apart from the absence of a neuter, this system resembles the reconstructed system of PIE: in particular, the feminine includes 'typical' Indo-European feminine nouns, such as female animate and abstract, as well as typical neuters, such as collective. In spite of the strong association of the feminine gender with collective and abstract nouns, it is still the association with sex which prevails, and is felt as more basic for gender distinction in this system.

A three gender system sensitive to the mass/count distinction is emerging in some Romance varieties, which distinguish between a masculine, a feminine, and a neuter gender that typically comprises mass nouns (see Haas 2000). Again, the basic feature that associates with masculine and feminine is sex, in spite of the fact that these two genders also contain most inanimate nouns, while only a small number of inanimate is included in the third gender.

Mass/count, as well as shape, are the basic features in the complex classification systems of the Bantu languages and of other languages of the Niger-Kordofanian family. As shown in Hurskainen 2000, the mass/count distinction is the most relevant feature on which this gender system is based, and it interacts with animacy (nouns in class 1/2 indicate human beings, while those in class 3/4 indicate non-human living beings), but not with sex[16].

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[15] See Ibrahim (1973) and Unterbeck (2000: xxx-xxxiii) for further reference.

[16] It is without the scope of this paper to discuss noun classes in the Niger-Kordofanian languages, but some

4.   The Indo-European three gender system

The earliest reconstructed gender system of PIE had two genders, only partly based on animacy: in part, the distinction between neuter and non-neuter was based on relative degrees of individuation, as argued in Ostrowski (1985). Matasović (2004), in his areal and typological evaluation of the PIE gender system, argues that, since a big number of inanimate nouns are in the animate classes in Indo-European, animacy was a secondary feature for gender assignment, and considers the mass/count distinction as primary. He further indicates Ket, a Yeniseyan language, as the closes parallel to PIE. Ket has a three gender system, with a masculine and a feminine which also contain nouns of objects and abstractions, while the neuter gender only contains nouns of masses and fluids, that is, non-count nouns. Different from Ket, the reconstructed system of PIE also included abstract nouns in the non-count class.
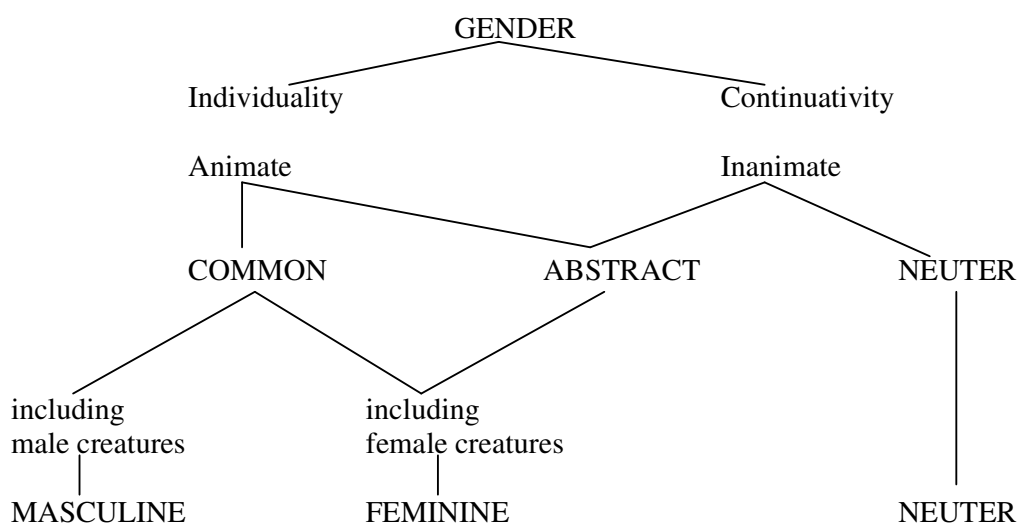
As suggested above, the suffix $*-h_2$ of abstract nouns changed from derivational suffix into the marker of a new noun class. The semantic property that motivated this noun class to start with was abstraction. Following this approach, this feature was substituted by sex at a later stage, and the third gender attracted nouns of human females from the animate gender. This is summarized in Figure 1[17]:

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comments may be in order. Even though they are generally considered genders because they consistently trigger agreement (Corbett 1991), noun classes in these languages are close to nominal classifiers in languages such as Burmese, Yucaltec or Vietnamese (Unterbeck 2000). Classifiers typically single out features such as count/mass or configuration, which have some connection with quantification. On the semantic motivation of Bantu noun classes see Hurskainen (2000: 675).

[17] Table 1 is adapted from Vogel 2000: 487. Vogel does not use the term 'abstract' for the third gender at any

FIGURE 1: THE DEVELOPMENT OF THE PIE GENDER SYSTEM, VERSION I

GENDER

Individuality   Continuativity

Animate   Inanimate

COMMON   ABSTRACT   NEUTER

including   including
male creatures   female creatures

MASCULINE   FEMININE   NEUTER

   The question that remains to be answered is how abstract changed into feminine. Leaving aside the possibility that some abstract nouns were reinterpreted as referring to female beings (which was Brugmann's initial idea, and which would not make us progress much, from the semantic point of view, from hypotheses that conceive of the feminine as accidentally arising from reinterpretation of some collective nouns), I would like to suggest an answer based on the properties of gender systems as outlined in section 3, which implies a slight modification of the stages assumed in Figure 1.

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stage, and does not clearly state that abstract nouns created a separate gender before animate nouns with female referents also moved to the same noun class. The motivation for the latter process is not clear. Vogel writes that "The gender of masculine is connected with individuality, which can also refer to male (and female) creatures. The genders of neuter and feminine represent the concept of continuativity, whereas the latter can also refer to female creatures" (2000: 488), as if continuativity were a semantic property of nouns with female referents, which contradicts the preceding statement. In other words, Vogel seems to look for a semantic motivation for the attraction of feminine in the gender of abstract nouns, but her explanation sound unsatisfactory.

We have seen in 3.1 that gender can be associated with some basic semantic property, as well as with other, less perspicuous ones: city names, ships, cars, and so on may constitute sub-classes within a noun class commonly associated with some more perspicuous semantic property. Even more perspicuous features, such as animacy or sex, may be viewed in some special perspective within a gender system: as well known, for examples, all diminutives are neuter in German, and this criterion overrides sex distinctions. I have shown above that the association of gender with abstraction is certainly relevant in the Indo-European languages, but is far from being clear-cut. Note further that, to my knowledge, there are no clear parallels available for the putative PIE three-gender system with animate, abstract, and neuter, that is, with two distinct genders for inanimate nouns and one for animate[18]. Since it is seems preferable not to assume unattested features for a reconstructed language, I will attempt a different explanation.

Among features that characterize animate nouns with respect to neuter in the ancient Indo-European languages, one which has often been pointed out as especially relevant is activity/inactivity. It was Meillet (1921: 228) who first called attention to pairs such as Greek ὕδορ(neuter)/ Latin *aqua*(feminine), or Greek πῦρ(neuter)/ Latin *ignis*(masculine), and argued that their existence attests of an opposition between entities that cannot be actively involved in an event, and entities that can move, and thus bring about events. Later discussion especially concerning the reconstruction of the alignment system of PIE took this feature of the PIE lexicon as one of the features that allow a possible reconstruction of PIE as an active

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[18] Corbett 2008 lists four languages which have a non-sex based three gender system, i.e. Grebo and Koromfe (Niger-Congo), Nicobarese (Austro-Asiatic), and Wardaman (Australian). Such systems still seem to be based on animacy, as in the case of Grebo (Corbett 1991: 200) or at least on presence vs. absence of life, as in the case of Wardaman, which has a gender for humans and animals, one for vegetables, and one for all other entities (Merlan 1994: 61-63).

language, as argued for example in Lehmann 1993: 213-17 and Gamkrelidze, Ivanov 1995: 238-9.

When we come to living beings, the activity/inactivity parameter crucially refers to the possibility to procreate: indeed, nouns that refer to young animals or children are often neuter in the Indo-European languages, in spite of having animate or even human referents. I would like to suggest that possible involvement in procreation was the most perspicuous feature in the early PIE gender system. Since the second relevant characteristic in this respect is the type of involvement in procreation, the tendency of such a system, if changing, would be a split between masculine and feminine within the animate gender. Thus, when a new morphologically motivated noun class became available, it became associated with the type of involvement in procreation, i.e. with sex, and became the feminine gender, rather than be associated with an intermediate degree of abstraction, which was originally indicated by the suffix[19], and become a possible abstract gender.

At this point, the suffix itself was reinterpreted as the marker of the feminine gender, the -$\bar{a}$- stems were created, along with first class adjectives, in which inflectional classes are univocally connected to gender, and in the meantime nouns with female referents from the animate gender, such as athematic kinship terms, moved to the feminine gender[20]. Thus, the
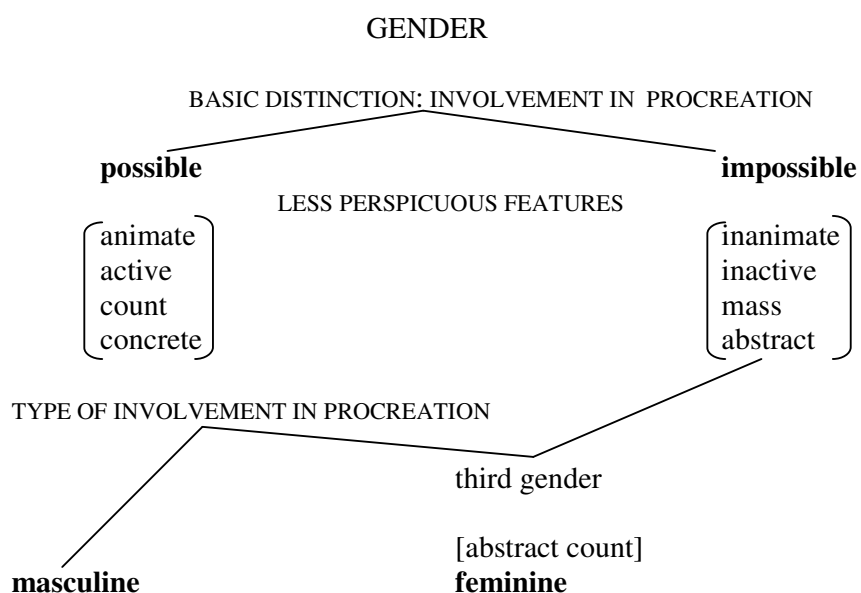
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[19] Recall that feminine abstract nouns are generally count, hence they are abstract to a lesser degree than uncountable abstract nouns, which remained neuter.

[20] Nouns which refer to female beings, do not take the $*-h_2$ suffix, and are reconstructible for PIE are not especially numerous; however, one must allow for a number of nouns to have received the suffix after the creation of the feminine gender, but to have existed without the suffix at an earlier time. As an example, one can mention of the word for 'woman', from PIE $*gwen$-. This word is attested with the suffix $*-h_2$ in various Indo-European languages, but it also has reflexes in Hittite (whatever its form may be, see Hoffner, Melchert 2008: 59), which point to its existence in a form which did not involve the suffix.

evolution can be summarized as in Figure 2:

FIGURE 2: THE DEVELOPMENT OF THE PIE GENDER SYSTEM, VERSION II

GENDER

BASIC DISTINCTION: INVOLVEMENT IN PROCREATION

possible   **impossible**

LESS PERSPICUOUS FEATURES

animate   inanimate
active   inactive
count   mass
concrete   abstract

TYPE OF INVOLVEMENT IN PROCREATION

third gender

[abstract count]
masculine   **feminine**

Note that, following this modified approach, we do not need to assume the existence of an otherwise unattested intermediate three gender system with an opposition between animate, abstract and neuter: the third noun class, when established as such, was immediately motivated by sex, and the association immediately extended to the suffix *-h_2. Besides, by explaining the creation of the feminine gender as semantically motivated by a split inside the animate gender, one does not need to look for unlikely semantic motivations that could connect sex distinctions to abstraction or degrees of individuation. In much the same way as the mass/count distinction was less perspicuous than the distinction based on involvement in procreation within the original two gender system, the abstract/concrete distinction remained less perspicuous than the combination of sex and animacy within the newly created three gender system.

One may further wonder why, when a third noun class, morphologically marked, became available, it was then associated with feminine rather than masculine. A possible

motivation lies in the marked character of feminine with respect to masculine in the Indo-Eruopean languages, which is shown by all sorts of derivational processes by which feminine nouns can be derived from masculine, rather than the other way around. In particular, if one looks at Anatolian, where a feminine gender is not available, one finds a number of nouns that refer to human females and derive from masculine nouns with the addition of the suffix -(*š*)*šara-*, as in *ḫaššuššaraš* 'queen', from *ḫaššuš* 'king' or *išḫaššaraš* 'lady', from *išḫaš* 'lord' (see Hoffner, Melchert 2008: 59). This suffix is likely to preserves the root of an ancient word for 'woman'. According to some, this suffix also occurs elsewhere, with the same function of indicating feminine, as for example in the word for 'sister', **swésōr*. A possible etymology for this word views it as formed with a suffix **-sōr*, connected with -(*š*)*šara-* (see Mallory, Admas 2006: 214). While this etymology is not widely accepted, it would be tempting to take such a suffix as the derivational feminine available before a feminine gender was created.

5.   Summary and conclusion

My purpose in this paper was to show that a theory of the origin of the feminine gender in PIE, which is compatible with the data from all Indo-European languages, does not necessarily imply semantic association of the concept 'feminine' with any other concept. Previous research in Luraghi (forthcoming), which disconnects the development of the suffix $*-h_2$ into nominative/accusative plural ending from the development of the same suffix into a theme vowel associated with gender, demonstrates that there is no need to assume the existence of animate collective nouns referring to female human beings in order

to bridge the conceptual gap between collective and feminine. The present paper further shows that the creation of a group of morphologically marked abstract nouns, which laid the foundations for the third gender, does not imply that nouns with female referents were attracted into this gender because of some sort of conceptual affinity with abstraction (or with mass, continuativity , degrees of individuation, or the like). Much to the contrary, I argued that the motivation for nouns denoting human females to be assigned the third gender (either by receiving the specific suffix or, in the case of some kinship terms, by moving away from the animate gender without being further morphologically motivated), and create the distinction between masculine and feminine, had its semantic motivation within the animate gender itself. Nouns of female humans occupied the third gender simply because such a morphologically motivated class had become available, but the semantic motivation provided by abstract nouns was not strong enough for it to constitute an independent gender: the reason for this is that, while the feature of individuation was indeed associated with gender in PIE, it was not the most perspicuous feature on which the gender system was based. As evidenced by the distinction between active and inactive nouns, this feature is rather to be sought in possible involvement in procreation. The split of the animate gender into masculine and feminine follows naturally from the fact that a further distinction among beings possibly involved in procreation is the type of involvement. Note that early association of the third gender, and hence of the suffix *-h_2, with feminine also clarifies how the thematic vowel -$\bar{a}$- became the marker of the feminine gender in first class adjectives.

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