

# The Preconceptual Basis of Noun Class (Gender)\*

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## Abstract

Noun class is widely seen as “standing out” from other morphosyntactic categories in having a basis in ontological beliefs, or a ‘semantic core’. The consequence of this view is that noun classes in natural languages frequently do not cohere semantically. Here I motivate an aspectual alternative according to which noun class is grounded in low-level cognitive processes including the detection of agency and sex-related cues (including shape/size) and ‘mode’ of attention. This suggests a way of bringing noun class more into line with the perspectivizing contribution of morphosyntactic features in general.

Keywords: noun class, morphosyntactic features, attention, agency detection, sex discrimination

Twenty years ago there was a flurry of research in Tromsø on the principles governing gender assignment in natural language. Trond played a leading role in all of this activity, elaborating meticulous and thought-provoking analyses of the gender assignment rules of Norwegian and Old Norse (published as Trosterud 2001; 2006). I was little more than a spectator at the memorable gatherings where these ideas were hashed out, but they were nonetheless formative, leaving me with intriguing questions to ponder in the ensuing years about human language, culture and mind. It was always my intention to address some of them in writing but, despite a couple of later workshop presentations, I let the opportunity slide. The occasion of Trond’s sixtieth birthday is thus a fine opportunity to make a reconnection with some of these questions—and those exciting days in Tromsø at the turn of the millennium.

## 1. Noun class assignment: belief vs. perception

The prevailing view of noun class (gender) is that it has a ‘semantic core’ (Corbett 1991), which generally involves one or more of the dimensions of animacy, humanness and sex (Aikhenvald 2000:22).<sup>1</sup> However, this same idea underlies a widespread perception that, “[i]f we compare gender with the other morphosyntactic features, it seems evident that gender stands out” (Corbett 2014:87).

This belief-based view of noun class immediately faces two embarrassments. The first is the existence of ‘partially semantic’ systems that admit of apparently arbitrary assignments not obviously motivated in terms of the semantic core. The second is that, in some languages, nouns may be assigned to classes based on their morphological or phonological properties (formal assignment rules). The focus here is the problem of the apparent semantic incoherence of some noun classes. The formal assignment problem is beyond the scope of the present short article, but I will return briefly to the question at the end of the paper.

Both types of anomaly may be seen as artefacts of the belief-based approach to noun class. This approach has nevertheless been extremely fruitful, illuminating the distribution of a feature that was once believed to be largely lexically determined in terms of assignment rules of impressive accuracy and coverage. The work of Steinmetz (1986; 2006) and Trosterud (2001; 2006) exemplify this kind of approach to the complex systems of the Germanic languages.

The other way to ‘limit the arbitrary’, to borrow a phrase from Joseph (2000), is by trying to uncover a coherent natural basis for the pattern. While the motivation seems clear enough in the case of ‘strict semantic systems’, noun classes in ‘partially semantic systems’ may be made up of nouns assigned by rules

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<sup>1</sup>I follow the growing trend of using *noun class* rather than *gender* to refer to the morphosyntactic category. However, if the ideas sketched here are on the right track, neither term is especially apposite. See ‘Conclusions’ for discussion of a possible alternative.



that do not cohere semantically. The beginnings of a solution, I suggest, is to shift perspective away from *classification* to what Seiler (1986) calls *apprehension*, and instead view noun class assignment as rooted in lower order cognition, specifically the processes that govern the direction, fixation and focus of attention. How these processes interact with language structure is also the focus of much work in cognitive linguistics (see, e. g., Langacker 2008). However, I shall assume that these processes are governed by biases towards environmental cues of certain types, and it is these that can be discerned in patterns of noun class assignment in natural language.

The idea that noun class is perspectival is not new, although its application has so far been limited, and not terribly well known. The proposal nonetheless goes back to Brugmann (1897), whose ideas were later elaborated by Lehmann (1958) and Weber (1999), who explicitly argues that noun class can be viewed as nominal aspect (cf. Rijkhoff 1991), that is, the distinction between singulatives, collectives and ‘continuatives’ (mass nouns). More recently, Wiltschko (2012) has proposed to analyse the animate/inanimate distinction in Algonquian as an expression of nominal aspect.

In what follows, we will examine noun class assignment as an expression of the detection of agency (Section 2), humanness and masculinity/femininity (Section 3), and composition (Section 4). Section 5 then introduces the idea, based on Mylne (1995), that noun classes in some languages may be assigned on the basis of what we can call ‘mode’ of attention. Finally, Section 6 suggests how some of these ideas might be followed up in future work.

## 2. Agency

A noun class distinction between ‘animate’ and ‘inanimate’ is found in several unrelated languages. Corbett (1991:20ff.) includes a lengthy discussion of the assignment to animate and inanimate gender in Ojibwe (oji; Algonquian; United States, Minnesota, Wisconsin, North Dakota, Montana/Canada, Ontario, Manitoba, Saskatchewan). Nouns denoting humans, animals, spirits, and trees are animate in this language, with the residue being inanimate. The complication is that some inanimate nouns are promoted to animate status, although the reverse does not occur. Examples of such ‘promoted’ nouns include *a:kim* ‘snowshoe’, *meskomin* ‘raspberry’, and *uppwa:kan* ‘pipe’ (for smoking). Black-Rogers (1982) makes the case that the apparent anomaly of many such assignments evaporates once we factor in the Ojibwe worldview, which posits an omnipresent life force that flows through all things to a greater or lesser extent. Promotion of an inanimate to animate noun class reflects the judgment that the thing in question is a focal point for this force.

Although it may be attractive to explain the anomalies of Ojibwe noun class assignment with reference to the belief system, this asymmetrical tendency to promote inanimates—what Hockett (1966) terms the ‘absorptive’ property of the animate noun class—is not unique to Algonquian, and therefore stands in need of explanation. We can find similar patterns when we look at unrelated languages with a similar animate/inanimate distinction. One such example is Car (caq; Austroasiatic, Nicobarese; India, Nicobar Islands Braine 1970), where the animate class includes inanimate nouns relating to human activity and motion, such as *á p* ‘canoe’, *c’ cə* ‘surfboard’, *sakú* ‘knife’, *linřñ* ‘bow’, *c’ k* ‘arrow’, *p’nsī l* ‘pencil’.

What this ‘absorption’ brings to mind is Dawkins’ (2006) proposed ‘hyperactive agency detection device’, or ‘HADD’, to which he imputes the cross-cultural tendency for humans to form beliefs in supernatural agencies. The hyperactivity consists in a bias towards detecting agency even where none is objectively present, potentially generating false positives. Such a bias is adaptive: individuals whose devices were less hyperactive would more often fail to recognize potential threats in the environment due to predators and human hostiles, with negative consequences for reproductive fitness. Natural selection has therefore honed an agency detection device with hyperactive properties.<sup>2</sup> If one by-product of such a device is supernatural beliefs, another by-product may be linguistic, consisting in a certain tendency for animate noun class to

<sup>2</sup>It is relevant in this connection to mention the proposal of Tichy (1993), who argues that Proto-Indo-European noun class was predicated on the marking of agent-patient distinctions. According to Tichy, Proto-Indo-European can be reconstructed as having had two genders, a *distinctum* which marked a contrast between agent and patient, and *indistinctum* which did not.

‘absorb’ inanimate nouns referring to things that may evidence agency.

The appeal in linguistic treatments of anomalous noun class assignment to ‘mythology’ or ‘worldview’ does not ultimately explain the pattern. Noun class assignment and worldview are in fact both *explananda*, to be explained by some deeper cognitive principle—such as agency detection. The reason that trees are assigned to the animate gender in Ojibwe may ultimately have less to do with the occult ‘power’ that Black-Rogers sees as underlying the Algonquian worldview than the fact that movement in trees can activate the HADD. The role of culture in this explanation is to take these systematic features of experience and reinforce them, for example by constructing them as salient manifestations of ‘power’, or by lexicalizing the noun class of certain inanimate nouns as ‘animate’. Rustling in the trees may be an inorganic consequence of the wind, but noun class assignment is primarily about how a referent might impact attention, and only secondarily about worldview.

Such an approach might be the beginning of an explanation of some of the more idiosyncratic assignments as well. To use a famous example from the related language Northern Cheyenne (chy; Algic, Plains Algonquian; US, Montana, Oklahoma), the fact that ‘raspberry’, but not ‘strawberry’, is animate, should not be taken to mean that speakers *conceive* of raspberries as animate (cf. Corbett 1991:23). If I were to hazard a guess at what motivates this particular assignment, it might be the fact that the raspberry bush is tall and tree-like, and may therefore be expected to trigger the HADD with greater frequency than the low-lying strawberry plant.

This account shifts the focus away from the ontologically-based distinction between animate and inanimate and onto the detection of agency, which is upstream of beliefs about the things of the world, and how this pre-conceptual engagement with the world is organized in experience.

### 3. Masculinity/femininity

If the HADD is one automatic detection system in the human repository, there are at least two others which may turn out to be important for understanding the function of noun class and how it is assigned. These are the ability to recognize other humans, most importantly through face perception, and the detection of masculine and feminine traits, as distinct from the brute fact of biological sex that is generally invoked as having semantic core function. A suitable collective term for masculinity and femininity would rather seem to be lacking. The term *gender* itself would have fit the bill well enough had it not been for its long history in linguistics, as well as its more recent usage in approaches that emphasise the constructed and performative aspects of gender as a social marker (see, e. g., Talbot 2019 [1998]). In the absence of a convenient term, I shall simply use the disjunction ‘masculinity/femininity’ rather than ‘sex’.

Face perception is notoriously hyperactive, as demonstrated by the universal predisposition for seeing faces in clouds, rocks, trees, and so forth (e. g., Guthrie 1993). If the detection of characteristics associated with sex is similarly hyperactive, this could potentially explain how parameters such as size and shape in inanimates and non-sex-differentiable animates may condition assignment to masculine or feminine noun class without having to appeal to higher-level cognition, including beliefs and ideologies. Since height, body size, and fat distribution are important sexually dimorphic cues to health, and therefore mate choice (Sugiyama 2016), we might expect to see attention to these features manifested in noun class systems. Moreover, if attention to these features is activated in lower order perception, we would not necessarily expect an alignment of noun classes with ontological categories.

What Corbett (1991:8) calls “strict semantic systems” may be based on experiences where the detection of cues for humanness and masculinity/femininity act in concert. The paradigm example of such a system is Tamil (tam; Dravidian, Southern; India, Tamil Nadu/Sri Lanka, Eastern Province, Northern Province; Asher 1989 [1985]). In this language, the masculine/feminine distinction is reserved for ‘rational’ referents, which includes humans and divine beings, as well as a few inanimate nouns with a metonymic relation to the latter, such as *cuuriya* ‘sun’ and *cantira* ‘moon’, both of which are also designations for the associated male gods.

Given the assumption of a ‘semantic core’, it is surprising that ‘strict semantic systems’ seem to occur rather rarely compared with ‘partially semantic systems’. If, on the other hand, noun class assignment in such systems presupposes the integration of lower order perceptual input from more than one detection system, this might help explain why they are the exception rather than the rule.

Another language where the distinction between masculine and feminine is ontologically transparent is Burushaski (bsk; isolate; Pakistan, Gilgit-Baltistan; Berger 1974, Munshi 2018). Burushaski has a system of four noun classes predicated on a fundamental distinction between human and non-human. We shall return to the non-human genders in Section 4. Only human referents are distinguished as masculine or feminine, e. g., *badśá* ‘king (m)’, *axón* ‘priest (m)’, *náni* ‘mother (f)’.

In other languages, the masculine/feminine distinction is projected further down the animacy hierarchy, including to non-sex-differentiable animates and inanimates. By way of an example, consider Mian (mpt; Trans New Guinea, Ok; Papua New Guinea, Sandaun province, Telefomin district; Fedden 2011), which has a four-way system that provides an interesting contrast with Burushaski. In common with the latter, Mian also has masculine and feminine noun classes. However, included in the masculine and feminine classes of Mian are nouns for animals whose sex is “not readily discernible or relevant”, but which are assigned “conventionalized gender”. The main criterion for feminine assignment is shape, with many animals of squat or round shape assigned to the feminine class. Thus, the eagle (*tolim*) is masculine, while the cassowary (*koból*) is feminine.

As Aikhenvald (2000) shows, certain physical parameters including size and shape, as well as position and solidity, recur in the assignment of inanimates to masculine or feminine gender. This is probably no accident. The underlying reason that size and shape figure in such promotion should be sought in the automatic processes that feed the perception of body dimorphism in humans. Another relevant parameter is the presence of neotenic traits, which have been sexually selected for in humans, but in women in particular, and which elicit subjective perceptions of ‘cuteness’ and associated caretaking behaviours. For example, Dizi (mdx; Afro-Asiatic, Omotic; Ethiopia; Allan 1976) distinguishes a feminine and non-feminine gender, but also assigns ‘cute’ animals to the feminine, irrespective of biological sex.

The correlation of size and shape with masculinity/femininity can be illustrated with two examples. In Maasai (mas; Eastern Nilotic; Kenya/Tanzania; Payne 1998), the masculine and feminine noun classes are also productively used to convey augmentative or diminutive meaning. There is a core of nouns whose class is lexically fixed, but the class of most other nouns is determined by pragmatic context. The speaker’s denigration of sexed referents picked out by gender-specific nouns may be signalled by using the opposite gender prefix, thus *en-tító* ‘girl’ vs. *ol-tító* ‘large shapeless hulk of a woman’, *l-ám`y* ‘male donkey’ vs. *nk-ám`y* ‘wimpy male donkey’. With gender-neutral roots referring to sex-differentiable referents, pejorative connotations may also accompany a change in the sex of the referent, e. g., *en-kitók* ‘woman’ vs. *ol-kitók* ‘very respected man’, *l-abááni* ‘male doctor’ vs. *nk-abááni* ‘female or small doctor, quack’. With inanimates, only size is relevant, e. g., *l-ál`m* ‘sword’ vs. *nk-ál`m* ‘knife’.

The Cantabrian (Montañés) variety of Asturleonese (ast; Indo-European, Romance; Cantabria, north-west Spain; Holmquist 1991) has a similar shape-based noun class system in which the primary distinction is between referents perspectivized as narrow (‘masculine’, ending in *-u*) or wide (‘feminine’, ending in *-a*), e. g., *calleja* ‘alley’ vs. *calleju* ‘narrow alley’, *poza* ‘quagmire’ vs. *pozu* ‘drinking well’, *ría* ‘valley’ vs. *ríu* ‘mountain river’. In these examples it is the ‘feminine’ term that designates the larger entity. In the case of terms referring to trees and their fruit, which form minimal pairs distinguished only by their noun class, this relation is apparently reversed, e. g., *cereza* ‘cherry’ vs. *cerezu* ‘cherry tree’, *manzana* ‘apple’ vs. *manzanu* ‘apple tree’, *panoja* ‘ear of corn’ vs. *panoju* ‘cornstalk’. However, this is explained by the shape criterion: the ‘masculine’ form of the designations for trees foregrounds their height. In contrast to Maasai, it is the masculine that is most strongly correlated with pejorative readings of ‘meagreness’ (p. 68), e. g., *carretera* ‘highway’ vs. *carreteru* ‘narrow, bumpy roadway’, *oveja* ‘sheep’ vs. *oveju* ‘sheep (meagre fare)’.

Although the relation between a referent’s shape and the masculine/feminine distinction recurs across unrelated languages, no satisfactory explanation for it has yet been put forward. Grimm (1989 [1890]:343) writes in an oft-cited passage that “Das grammatische genus ist demnach eine in der phantasie der men-

schlichen sprache entsprungene ausdehnung des natürlichen auf alle und jede gegenstände”. The key words here are *Phantasie* and *Ausdehnung*, ‘extension’, because they suggest that the explanation lies with higher-level cognitive processes, in particular the projection, by way of conceptual metaphors, of sexual characteristics onto entities that objectively lack them (e. g., Trosterud 2001). If, on the other hand, noun class assignment is grounded in lower level cognitive processes as I have suggested, it is not necessary to assume that ‘worldview’ is somehow inscribed there.

#### 4. Composition

We now turn to features relevant in discriminating between classes of inanimate that do not involve promotion animate or masculine/feminine class. Some languages have noun classes assigned on the basis of quite specific cues. Anindilyakwa (aoi; Macro-Gunwinyguan, East Arnhem; Australia, Northern Territory, Groote Eylandt/Bickerton Island; Leeding 1989), for example, makes a distinction in non-personified nouns between visible and invisible and, within the visible class, between lustrous and lustreless. Ngan’gi (nam; Daly; Australia, Northern Territory, Daly River Region; Tryon 1974, Reid 2011 [1990]) has noun classes specifically for hunting weapons and anything made of wood.

However, the most common distinction is based on the perceived composition of the referent, which is related to the ontological distinction between individual and substance. Rijkhoff (1991) proposed a four-way distinction based on the features [structure] and [shape], yielding a contrast between collective nouns [+structure, +shape], mass nouns [+structure, –shape], individual nouns [–structure, +shape], and concept nouns [–structure, –shape]. Although widely relevant for the syntax of NPs, similar distinctions are also the basis for assignment to noun class in some languages, such as Burushaski, which has two neuter genders traditionally designated ‘x’ and ‘y’. The former includes animates and tangible inanimates, while the latter includes non-individuated terms: abstracta, aggregates and substances. Trees are viewed as aggregates, thus *branç* meaning ‘mulberry’ is x, but in the sense ‘mulberry tree’ is y.

Once again, Mian provides an interesting contrast with Burushaski. Like Burushaski, Mian has two neuter noun classes (1 and 2) for inanimates (Fedden 2011:174f.). In addition to body parts (*bān* ‘arm’), natural entities (*deit* ‘bird’s nest’) and cultural artefacts (*was* ‘drum’), neuter 1 also includes liquids and substances (*deib* ‘moss’, *isá* ‘pus’). Neuter 2 is used with what Fedden designates ‘masses’ (*awitmin* ‘stars’), locations and landmarks (*kwoisām* ‘spirit house’), weather phenomena (*ib* ‘clouds’), illnesses (*kweim* ‘fever’), intangibles and abstract nouns (*fotom* ‘shame’), temporal and verbal nouns (p. 175). While Burushaski perspectivizes the distinction between individuated (x) and non-individuated (y), it can appear that the basis of the Mian system is part-whole focus. Thus, neuter 2 nouns are often aggregates or superordinates, such as *afobèing* ‘goods’, *fub* ‘rubbish bits’, *kibi* ‘face (the collective of eyes, nose, mouth)’, and *unin* ‘food’.

As Aikhenvald (2000) points out, ‘solidity’ is also one of the recurring parameters involved in assigning masculine or feminine gender. Lehmann (1958) proposed that the three-way gender system of Proto-Indo-European was predicated on composition rather than biological sex. The ‘feminine’ rather served to mark a noun as collective, while the ‘masculine’ had a singulative function. Thus, an individual cold or frost was masculine *himá-s*, while the feminine *hima-h* referred to a sequence of such events, that is, winter. The neuter *hima-m* was according to Lehmann a resultative form meaning ‘snow’, but could equally be a mass noun. Such a system may have survived into early Germanic, as Leiss (1999) argues was the case for Old High German on the basis of the large number of nouns with double or triple gender attestations. If this is correct, it raises interesting questions about the relation between composition-based assignment and assignment based on perceived agency and masculinity/femininity.

A similar question is raised by Tayap (gpn; unclassified; Papua New Guinea, East Sepik Province), which Kulick and Terrill (2019:58) claim assigns gender in the following way. If a noun is particularized as opposed to generic, it is masculine by default, otherwise feminine. If particularized and has a non-male referent, it assigned to the feminine class. Particularized male referents receive masculine gender if long, but feminine if ‘stocky’.

## 5. Mode of attention

In the preceding sections we have proposed an approach to major noun class parameters in terms of apprehension rather than ontology of the referent. These parameters ultimately involve the detection of agency, humanness, masculinity/femininity and composition.

In some languages, however, the assignment of inanimates to masculine and feminine noun classes does not appear motivated by any of the features discussed so far. A relevant proposal by Mylne (1995) re-analyses the masculine-feminine distinction in Dyirbal (dbl; Pama-Nyungan; Australia, Northeast Queensland; Dixon 1972) in terms that do not directly have to do with the detection of masculine/feminine traits. What instead appears to distinguish the relevant classes is what we can call a ‘mode’ or quality of attention.

Dyirbal has four noun classes, diagnosed by the choice of classifier that accompanies a noun in a noun phrase. According to Dixon’s (1972:308) simple schema for class membership, the classifier *bayi* is used with (human) males and non-human animates, *balan* for (human) females, water, fire, and lightning. The *balam* class includes ‘non-flesh food’ (edible vegetables, fruit and honey), and the residue *bala* class contains everything not in the others.

Exceptions to these generalizations are accounted for through three principles. The myth-and-belief principle (cf. the discussion of Ojibwe above) explains why birds, which in mythology represent dead human females, are assigned to the *balan* rather than the *bayi* class. The second is metonymy. Fishing implements might be expected to be *bala*, but are exceptionally *bayi*, apparently by association to fish. The third is that things that have the capacity to cause harm are assigned to *balan*. For example, fish are in general *bayi* by virtue of being animate, but the stone fish and gar fish are *balan*.

The question is what connects harmful things to a noun class whose semantic core is allegedly female sex. Lakoff (1987:92–104) analyses the *balan* class as a radial category in which the concepts relating to women, fire and dangerous things are ‘chained’ by experiential links. The reason that the sun is assigned *balan* is mythological—the moon is the ‘husband’ of the sun. This permits the attraction of other nouns to the *balan* class. Since the sun and fire are from the same ‘domain of experience’, fire is also assigned to *balan*, from where it attracts other ‘dangerous’ things, including stinging nettles, fighting spears, gar fish, and water.

In seeking to restore the *balan* class as structured on a single ICM, Mylne (1995) criticizes the tenuousness of Lakoff’s links and argues his approach entails imposing Western categories of thought on the system. Mylne’s point of departure is Dixon’s observation that the *bayi* class is based on animacy rather than maleness, and casts doubt on the idea that the distinction between *bayi* and *balan* is ultimately based on sex at all, which is a core assumption of Lakoff’s account. Although Mylne leaves important questions unanswered, I nevertheless think it is the right direction to take.

At the core of Mylne’s proposal is his observation that members of the *balan* class are frequently the source of disharmony or ‘trouble’, making *balan* a ‘handle-with-care’ tag. Moreover, he claims (p. 394): “it is the non-obvious capacity to cause trouble and the existence of a cultural reason for avoidance which seem to be relevant to the *balan* class”. Elaborating with more specific examples, he goes on:

Stonefish are extremely dangerous, the more so because of their excellent camouflage. The platypus is small, attractive, and apparently harmless, but inflicts a vicious wound when handled. The same applies to the hairy mary grub. Stinging trees and stinging nettles inflict pain on the unwary, but their capacity to do so is not self-evident; one must learn to recognize them. Fighting spears, shields and fighting grounds are sources of trouble, but those who do not know this need to be taught it; children need to be warned away. [...] Fire is clearly a potential source of trouble [...], but again, this may not be obvious to the inexperienced. Water bodies are home to dangerous and unpredictable spirits (the mythological associations probably take precedence over, but would be associated with, the risk of being attacked by crocodile [sic!] or of drowning).

(Mylne 1995:387f.)

Thus, *balan* marks the referent of a noun as requiring a certain circumspection. As Mylne himself writes (pp. 390–393), this raises the question why women rather than men should be assigned to this class.

It can be explained, at least partly according to Mylne, with reference to the avoidance behaviours required by Dyirbal culture. In addition to an everyday form of the language known as ‘Guwal’, there was a separate lexicon, Dyalḡuy, or ‘mother-in-law language’, which had to be used in the presence of taboo relatives. Dyalḡuy remained in use until about the 1930s.

According to Dixon (1972:32), “the rules for using Dyalḡuy [...] precisely indicate who is sexually available for any person.” These rules were acquired young, since “[c]hildren were promised in marriage at an early age, thus acquiring a full set of taboo relatives; Dyalḡuy was probably learned in the same way as Guwal, perhaps a year or two behind it.” The penalty for failing to observe the taboos ranged from being publicly shamed to being put to death.

This explanation cannot be complete, however, since the taboo was reciprocal: the use of Dyalḡuy was obligatory in the presence of parents-in-law, children-in-law, and cross-cousins (father’s sister’s or mother’s brother’s child) irrespective of ego’s own sex. This suggests there must be some additional factor at work that explains the assignment of women to *balan*. The styling of Dyalḡuy specifically as ‘mother-in-law language’ also points to an asymmetry behind the ostensibly symmetrical taboo.

One possible explanation is cultural, but Mylne rejects the idea that women are regarded as intrinsically troublesome in Dyirbal society, pointing to the equally treacherous roles that men and women play in Dyirbal myth. He hypothesizes instead (p. 392) that, underlying ‘femaleness’ and ‘trouble’ is a model of “the other, the extra-ordinary, that which is set apart as being associated with the potential to disrupt harmony”. This formulation does not appear to me, however, to eliminate the fundamental disjunction in a way that would allow Mylne to restore a single idealized cognitive model (ICM) for the *balan* class. One of the alternatives that Mylne considers, however, is that “it is women who impose the burden of avoidance on men rather than vice versa”. Opting for this route would seem to lead to the conclusion that gender asymmetries are inscribed in the linguistic system itself: “That the language of the community as a whole should embody such a belief implies a dominance of the male point of view which is certainly found in western language and culture.” Although Mylne does not choose this option, Nessel (2001) makes a parallel argument for Russian on the basis of declension class distribution. However, such a conclusion would be premature. A reasonable alternative would be to seek a basis for the asymmetry beyond the domain of culture.

Buss (2019 [1998]:159–186) lays out key evidence for the existence of evolved asymmetries between male and female short-term mating strategies that show a high degree of stability across cultures. In particular, men are more strongly motivated on average to seek out sexual variety. This in turn predicts that they are more likely to show an interest in women that are culturally off-limits, and risk the penalties for doing so. If this is on the right track, it can help make sense of why women should be marked linguistically as requiring circumspection—without appealing to mythologically or ideologically inscribed beliefs.

I also think that we can put to rest Mylne’s concern that such an account would imply “dominance of the male point of view”, since the costs of failing to exercise proper circumspection are typically not incurred individually, but severally—even community-wide—irrespective of gender. The appropriate circumspection required by something marked as *balan* can be understood as a shared responsibility. Straying too close to the water’s edge and being attacked and maimed by a crocodile is a cost borne not just by the victim, but by the victim’s family, and so it therefore behooves everyone to be on their guard. In the same way, the costs of being caught making eyes at a taboo relative fall not just on the would-be lover, but also kin and affinal relatives, of either sex, whose lives would be threatened with disruption should an affair come to pass.

Before closing this section, it is important to address an objection against both Lakoff’s and Mylne’s analyses raised by Plaster and Polinsky (2007) on learnability grounds, which could be extended to the claims advanced here. I will briefly explain why I think the objection does not apply. They write:

A child has no inherent (or learned) association of women with dangerous things, as Lakoff argues, or as “other” and “associated with the disruption of the harmony of living”, as Mylne (1995:387) proposes. Since many of the concepts that Lakoff and Mylne identify as underlying the Dyirbal noun class system are beyond the scope of young children’s understanding, the systems posited by Lakoff and Mylne would be nearly impossible for children to learn.

(Plaster and Polinsky 2007:19)

The consequence of this claim is that they give up on the semantic coherence of the *balan* class, positing separate statements assigning *balan* to nouns with different semantic labels, including [female], [fresh water], [fire] and [stinging].

I agree with Plaster and Polinsky's criticism of Lakoff, but their criticism of Mylne seems slightly misplaced, even if he did not ultimately resolve the disjunction between 'femaleness' and 'trouble'. Although children may not have the "concept" that something may be "associated with the disruption of the harmony of living", children are socialized into a habitus from when they are born, and this habitus includes the acquisition of avoidance behaviours from those around them (cf. Bourdieu 2000 [1972], Dreyfus 1991). There is no need to assume that the capacity to cause harm has to be perceived in the object that causes it, for example, by actually getting stung by a nettle. It is sufficient that this capacity is reflected in the circumspection of others in the community towards it. The same is true of the semantically much simpler *balam* 'non-flesh food' class. The main evidence that something is edible is that others eat it without spitting it out or falling sick.

In sum, the implication of Mylne's analysis is that sex (or masculinity/femininity) is not ultimately what underlies the distinction between the *bayi* and *balan* classes. It is rather something functional, encoding a difference in the way a noun's referent is generally attended to by Dyrbal speakers. It is no less perspectival for being lexically largely fixed. Although Mylne frames his account in terms of Aboriginal 'worldview', it actually furnishes a paradigm for grounding noun class assignment in cognitive processes upstream of belief formation. In this way, it is compatible with a broader perspectival approach to morphosyntactic features.

## 6. Conclusions and outlook

The received view of noun class as having a 'semantic core' is based on the assumption that noun class assignment is grounded in ontological beliefs. While this approach has led to a greatly improved understanding of the generalizations underlying noun class assignment, it inevitably also leads to the view that the content of noun class as a feature is arbitrary, since certain assignments will be semantically anomalous or based on form rather than semantics.

I have proposed instead that noun class is grounded in human attention systems, specifically, the detection of cues relevant to the perception of agency, humanness, masculinity/femininity and composition, as well as what I have termed 'mode' of attention. Much of the reason that we find that inanimates may be promoted to classes based on these criteria, I suggest, has to do with the 'hyperactivity' of the underlying detection systems. Since they are low-level cognitive processes, we do not have to invoke beliefs about the referent, making it possible to bring noun class into line with the perspectival nature of other morphosyntactic categories. In short, it becomes less evident that "gender stands out".

If the ultimate basis of assignment to animate noun class is low-level agency detection rather than higher level beliefs, the linguistic study of noun class may be better served by terms other than *gender* or *class*, which are permeated with classificatory assumptions. If it were up to me, I might venture the term *handle*.

The approach sketched here may also open a possibility, at least in principle, of explaining how noun class assignment might draw on formal criteria in some languages. Such a situation would be unexpected if noun class genuinely were grounded in ontology, but easier to reconcile with a grounding in attention/apprehension. It is perhaps relevant in this connection that certain kinds of sound symbolism are involved in making some of the same distinctions of size, shape and affective meaning as correlate cross-linguistically with the masculine/feminine noun class distinction (Ohala 1984).

I leave a fuller elaboration of these ideas and any broader implications for gender in language to future work.



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