

# On the Identification of Noun Class and Gender Systems in Chakali

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## 1. Introduction

Recent studies on nominal classification have proposed that the notion of *noun class* and *gender* should be fused (terminologically) since they both refer to the same grammatical construct (typologically). The claim receives support in Corbett (1991); Aronoff (1994); Aronoff & Fudeman (2005); Maho (1999); Corbett & Fraser (2000); Corbett (2006), among other works. The fusion results in a term called *gender* (Corbett, 1991: 146) which is defined solely on agreement, that is, a language has gender if the language shows “some systematic covariance between a semantic or formal property of one element and a formal property of another” ((Steele, 1978: 610), cited in Corbett (1991, 2006)). The paper presents support for the distinction between *gender* and *noun class* by providing data from Chakali in which both grammatical constructs are independent of one another.<sup>1</sup> First, Chakali has four domains in which agreement can be observed (i.e. antecedent-anaphor, possessive-noun, numeral-noun, quantifier-noun). The values shared reflect the humanness property of the referents, dichotomizing the lexicon of nominals into a set of lexemes *a* (i.e. human-) and a set *b* (i.e. human+), thus GENDER *a* or *b*. Second, the nominal lexemes are classified according to which suffixes they take. They form sets of lexemes displaying the same paradigmatic pairs *singular-plural*. I refer to this classification as ‘noun class’ following one practice. Chakali has five of these classes.

In this paper I will show that (i) ‘humanness’ crosscuts the noun classes, and (ii) while [*a*] (3.PL.*Ga*) and [*ba*] (3.PL.*Gb*) are the only surface forms on plural targets, they do not appear within the set of noun class suffixes. The relevance of the present work lies in the observation that a linguistic system can display at a certain stage both *gender* and *noun class* and that these two sorts of classification can work on their own.

## 2. The problem

The accepted view is that “the Gurunsi languages, and indeed all Gur languages, historically had a system of nominal classification which was reflected in agreement. The third person pronominal forms and other parts of speech were at a certain time a reflection of the nominal classification” (Naden, 1989) (similar statements are present in Manessy (1969b); Wilson (1971); Naden (1982); Crouch & Naden (1998); Tchagbalé (2007)). The problem addressed in this work resides in the treatment of a system’s reminiscence, since it seems that an eroded form of the ‘reflection’ stated in Naden (1989) is still observable in Chakali.

It is generally assumed in the literature that “noun class, or gender, is a property of nouns” and that “it can be reliably detected only by looking at those words with which the nouns enter into an agreement relation” (Aronoff & Fudeman, 2005: 173). On one hand the reader will observe in the following sections that Chakali does organise the nouns into classes but that none of the suffixes are reflected on other parts of speech, the type of (degree of) alliteration widely found in other Niger-Congo languages. Moreover,

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<sup>1</sup>Chakali (ISO/DIS 639-3: cli) is spoken in the Wa East district, Upper West region of Ghana. The language is listed in Manessy (1969a,b) as a member of his Grusi *groupe C* cluster, in Naden (1989) as Grusi Southwestern and in Manessy (1999) as Grusi Central. It is closely related to Vagla (vag), Sisaala (ssl, sil, sld, sig), Tampulma (tpm) and Deg (mzw) and to a lesser extent to Winyé (kst) and Phuie (pug) (The ISO identifiers in parentheses are taken from Gordon (2005)). Language names in the Grusi group (also written Gurunsi) are often subject to spelling variations in the literature. Kleinewillinghöfer (1997) is an overview of the state of documentation of the Grusi group. I benefited from an unpublished document written by Ulrich Kleinewillinghöfer before my first visit to the Chakali area.

humanness is shared across several agreement domains. Yet humanness is not a criterion for the nouns' classification into *sg-pl* pairs. The reflection of noun classes onto other parts of speech is not observable in Chakali, nevertheless the language does have gender agreement.

This contribution should not be seen as an innovation nor a clarification of the terminology within the general field of nominal classification (see Senft (2000) for insightful contributions on the topic and Maho (2005) for a bibliography on the topic at hand). Instead the aim is to present a language which displays an unusual distribution within its nominal classification. Terminological divergences in the analyses of a single language are commonly found in the literature. This is a matter of tradition. It is generally accepted even though linguists believe that to achieve cross-linguistic comparability of data in an efficient way one should follow systematic methods of description. For example, two publications differ in describing the noun class system of Dagaari, one under the term *gender* and the other under the term *noun class*. In Dakubu (2005: 42), the author writes “[i]n line with a common practice in Niger-Congo linguistics I refer to singular classes and plural classes of nouns, but a singular-plural combination is called a gender. This is because, although it is true that not every noun of the same singular class belongs to the same plural class, some combinations are much more common than others, so it is useful to be able to refer to them as such”. According to Bodomo (1994, 1997), Dagaari has no gender but noun classes. For this author, gender is no more than “what is seen in some Indo-European languages” (Bodomo, 1997: 52) and he goes on to say that “[i]n the Dagaare pronominal system, personal pronouns do not indicate gender differences”. So in Bodomo’s view (i) gender is no more than a male-female distinction and (ii) noun class is the pairing *sg-pl*, while for Dakubu (i) gender is the pairing *sg-pl* and (ii) noun class is referred to as the member of a gender which takes a particular suffix in singular or plural. Both authors mention in their contribution two crucial aspects of Dagaari grammar which are also relevant for the present contribution on Chakali, that is, “[i]n Dagaare adjectives have their own unchanging singular and plural suffixes. They are not affected by which gender suffix the noun has, so that there is no class agreement in this language” (Dakubu, 2005: 42) and an “important feature in this system is the distinction between human and not human” (Bodomo, 1997: 71).<sup>2</sup>

### 3. The noun class system

In this analysis the identification of noun classes is based on non-syntagmatic evidence. Noun class is a type of inflectional class affix on nouns, where the values of number and class are set forth (i.e. an instance of Matthews (1972)’s cumulative exponence). In Chakali, as in all the other Grusi Southwestern (henceforth GSW) languages,<sup>3</sup> the values are exposed by suffixes: number refers to either singular or plural and class can be regarded as phonological and/or semantic criteria encoded in the roots for the selection of the proper pair of singular and plural suffixes. One method used to identify the inflectional class appears in Rowland (1966: 23) in which it is stated that “[t]he nouns in Sissala may be assigned to groups on the basis of the suffixes for singular and plural”. Table 1 below presents the data respecting this definition.

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<sup>2</sup>Dagaari and Wali are two contact languages to Chakali. They are classified within the Oti-Volta subgroup of Gur in Naden (1989).

<sup>3</sup>Crouch & Naden (1998: 136) states that “[i]n Vagla most traces of this (noun-class system where paired singular/plural noun affixes correlate with concording pronouns and other items) system have been lost. The morphological declensions of nominal pluralization have not yielded to a clear analysis”. Even though the authors do not attempt to allot nouns into classes, Marjorie Crouch’s field notes (1963, Ghana Institute for Linguistics, Literacy and Bible Translation (GILLBT)) present seven classes. Nominal classifications are proposed for other GSW languages (number of classes for each language in parenthesis): Sisaala of Finsi in Rowland (1966) (2), Sisaala-Pasaale in McGill et al. (1999) (5) and Isaalo in Moran (2006) (4). The number of classes is of course determined by the linguist’s analysis.

CLASS	root	SG.	PL.	Eng.
CL.1	va	váà	vásá	dog
CL.1	bi	bìé	bìsé	child
CL.1	gun	gùnó	gùnsó	cotton
CL.1	hen	hèná	hènsá	bowl
CL.1	da	dáá	dàsá	tree
CL.1	jali	járiá	járisá	muslim
CL.1	pɛn	pèná	pènsá	moon
CL.2	tuto	tùtó	tùtòsó	recipient
CL.2	naã	náá	nààsá	leg
CL.2	tii	tìi	tìsè	akee tree
CL.2	bɔla	bòlá	bòlàsá	elephant
CL.2	bʊɔ	bùó	bùósá	hole
CL.2	joN	jòŋ	jósó	slave
CL.2	ziN	zìŋ	zísé	tail
CL.2	kuoru	kùórù	kùórùsó	chief
CL.2	ɣmɛN	ɣmèŋ	ɣmèsá	rope
CL.3	haaN	háàŋ	háànà	woman
CL.3	gɔŋ	góŋ	gójá	river
CL.3	hamoN	hàmòŋ	hàmònà	child
CL.3	nar	nár	nára	person
CL.3	bʊɔN	bùóŋ	bóná	goat
CL.3	tɔN	tóŋ	tóná	skin/book
CL.3	sɔN	sóŋ	sóna	name
CL.3	?ol	?ól	?óló	mouse
CL.3	?ul	?úl	?úló	navel
CL.3	nɔN	nóŋ	nóná	fruit
CL.3	ɲiŋ	ɲíŋ	ɲíjá	tooth
CL.3	par	pár	pára	hoe
CL.4	begi	bégíí	bégíé	heart
CL.4	bi	bíf	bíé	stone
CL.4	bili	bílíí	bílíé	hyena
CL.4	pi	píí	píé	yam seed-bed
CL.4	wole	wóléé	wóléá	star
CL.4	si	síí	síé	eye
CL.4	wi	wíí	wíé	matter, thing
CL.4	kɔli	kólíí	kólíé	millet stem
CL.4	dʒane	dʒánéé	dʒánéá	fool
CL.5	kuo	kùó	kùónò	farm
CL.5	ɲuu	ɲúú	ɲúúnò	head
CL.5	taa	tàá	tàáná	language
CL.5	suū	sùú	sùúnó	guinea fowl
CL.5	ziN	zìŋ	zínna	bat
CL.5	vii	vìí	vìiné	cooking pot
CL.5	kiN	kìŋ	kinnà	thing
CL.5	hoN	hòŋ	hònna	load
CL.5	tin	tìn	tìnná	owner

**Table 1:** Chakali Noun Classes

While this method suggests that one should look for pairs of forms, the present classification treats phonologically empty suffixes as ‘exponents’. That is because what counts as a noun class is the paradigm determined by a lexeme’s inflectional pattern. Five pairs surface and most nouns fall into one of those five pairs. They are gathered in table 2.

	cl.1	cl.2	cl.3	cl.4	cl.5
SING	-V	∅	∅	-V [ -LO, -HI ]	∅
PLUR	-sV	-sV	-V	-V	-nV

**Table 2:** Inflectional class suffixes on nouns

In practice the most productive and regular patterns are those recognized as noun classes.<sup>4</sup> The semantic value of those suffixes has proven difficult to establish. It is possible that there are analogies in class assignment based on semantic criteria but it is more likely that the phonological shape of the root triggers the suffix type. There is a general tendency for the class suffix to receive a high tone, but no strong indication has been found to make it a criterion for class assignment. Hence it is the phonological representations of roots and suffixes and the morpho-phonological processes among them which constitute the following discussion.

Chakali has an underlying nine vowel system (i.e. {i, ɪ, e, ε, a, o, ɔ, u, ʊ}). It is an instance of Casali (2003)’s five-height (5Ht) system in which the feature ATR is contrastive within both the [+HI] and [-HI, -LO] vowels (see table 3), similar to many other Gur languages (Dakubu, 1997: 81-82). There is so far no clear evidence to assume an ATR distinction for the low vowel at the phonemic level. The vowel ə surfaces only as a reduction of one of the nine vowels, usually the +LO vowel and in weak accentuated sequences.

IPA	features
i	[ +ATR, +HI, -LO, -RO ]
ɪ	[ -ATR, +HI, -LO, -RO ]
e	[ +ATR, -HI, -LO, -RO ]
ε	[ -ATR, -HI, -LO, -RO ]
o	[ +ATR, -HI, -LO, +RO ]
ɔ	[ -ATR, -HI, -LO, +RO ]
u	[ +ATR, +HI, -LO, +RO ]
ʊ	[ -ATR, +HI, -LO, +RO ]
a	[ -HI, +LO, -RO ]
ə	[ ]

**Table 3:** Surface vowels in IPA and feature specifications

The rules introduced under (1) are all considered as harmony rules since they all involve the assimilation of root vowel feature(s) to suffix vowels and in many cases they assimilate in non-adjacent domains. The first three rules (i.e. (1a), (1b) and (1c)) control the height of the suffix vowel, while the last two (i.e. (1d) and (1e)) are responsible for the assimilation ATR and RO. In the rule format the symbol V represents a suffix vowel and the material following / and preceding \_ represents the context. Again, the surface form of a suffix vowel is predicted by the features representing the root vowel. First the rules (1a) and (1b) predict the height of the suffix vowel. The +LO suffix vowel appears following a -HI root vowel while the -LO, -HI suffix vowel appears following +HI root vowel. This is true for

<sup>4</sup>Some words do not fit perfectly the patterns described, but are not totally alien to genetically related languages and the reconstructions of Proto-Grusi in Manessy (1969a,b) and Proto-Grusi-Kirma-Tyurama in Manessy (1982). In fact there would be more possibilities and surfaces forms if the possible classes ∅/∅, ∅/da, ∅/ta and ∅/ma were included in the present work. I only treat the most productive patterns found and present in table 1 a selection of those. The selection is extracted from a database of 567 nominal pairs. I sometimes get inconsistent class assignment across speakers, across villages, and surprisingly different forms (predominantly in the plural) from the same speaker on different elicitation sessions, but the latter case rarely occurs.

most words in class 1, 2, 3 and 5. Second the suffixes assimilate two vowel specifications of the root, interpreted here as the feature ATR and RO. The rule (1d) and (1e) indicate the context where a maximum of one consonant can exist between the two vowels for harmony to occur. This is especially relevant for plurals of class 5 where words like “bats”, “things”, “loads” and “owners” are not affected by (1a), (1b) and (1e).<sup>5</sup> In these cases the default suffix vowel is [a].

(1) *Harmony rules*

- a. V > +LO / -HI \_
- b. V > -LO, -HI / +HI \_
- c. V-LO,-HI > +HI / +HI \_
- d. V > [ $\alpha$ ATR] / [ $\alpha$ ATR] C \_
- e. V > [ $\alpha$ RO] / [ $\alpha$ RO] C \_

Rounding harmony is observed (e.g.  $\text{?ol+V}_{\text{PL}}$   $\text{?óló}$  “mouse”) but neither [ø] nor [u] surface as a class suffix vowel. In fact the suffix vowels are never high, as predicted by the rules (1a) and (1b), except for the class 4 which is discussed below.

The underlying /N/ needs some clarification. It appears in the column where the roots are listed in table 1. The phoneme appears at the right edge of the root and surfaces differently depending on the phonological context. Three rules which describes the observed outputs are provided in (2). Rule (2a) says that when it occurs at the end of a word, /N/ becomes [ŋ]. When followed by a consonant or a vowel, /N/ becomes [n] as in (2b), and (2c) says that /N/ gets deleted if followed by a voiceless alveolar fricative (see class 2).

(2) *Possible outputs of /N/*

- a. /N/ > [ŋ] / \_ #
- b. /N/ > [n] / \_ C | V
- c. /N/ > Ø / \_ s

The pattern found in class 4 affects for the most part roots ending with a high vowel. We describe the patterns as follows: in the singular and the plural, a vowel is added (i.e. V>VV). We assume that the suffix vowel of the singular of class 4 is -LO,-HI and that it rises to +HI if preceded by a +HI root vowel. While the height of the plural suffix is predicted by (1b), another height rule (i.e. 1c) is needed to account for the behavior of the singular of class 4.

It is needless to say that the analysis of the morphophonology of Chakali is at a stage where more data is needed to motivate and improve the description. In addition we do not provide derivations where the rules stated are ordered and inspected. Putting aside the details of the analysis, the exposition reveals a potential classification into singular-plural pairs (i.e. gathered in table 2) which in turn is used to affirm that Chakali has at least five productive noun classes.

#### 4. The gender system

Gender is identified as the grammatical encoding of an agreement class. Seen as a feature, its values phonologically expose formal patterns which in turn define how agreement operates in the language. Typically agreement operates across word boundaries: it is a relation between a controller and a target

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<sup>5</sup>There is another word with the meaning “owner” and its plural is *tuma*. Notice that *tuma* does not fall within the classes presented because such plurals are so few. Similarly the words *díŋ* sg. / *dínní* pl. “fire” and *díá* sg. *dísá* pl. “house” also violate the rules but we assume that those words might have kept older markers for plural, or for some other reasons which are also unexplored in the present contribution (see Manessy (1969b: 30) in which the author uses the terms *usure phonétique*, *extensions d’emploi* and *morphologisation* when he discusses *les formes suffixales très érodées* of the Grusi languages.)

in a given syntactic domain.<sup>6</sup> Since gender is based on syntagmatic evidence, we do not assume that a morphological operation of noun formation reflecting a classification (i.e. section above) must share its potential classification (i.e. semantic and/or formal) to other parts of speech. It might be the case that “[l]es suffixes et anaphoriques on été originellement deux formes d’un même morphème” (Manessy, 1969b: 30) but a synchronic account of the language must look at them as independent grammatical constructs. Moreover it is usually accepted that “(g)ender is not restricted to sex-based classifications (‘male/female’); other semantic possibilities include ‘animate’, ‘small’, ‘insect’, ‘non-flesh food’ and so on” (Corbett & Fraser, 2000: 293). Thus treating humanness as gender is not controversial.

In Chakali the values for the feature GENDER are presented in table 4.

GENDER	criteria
<i>a</i>	residuals
<i>b</i>	things that are categorized as human

**Table 4:** Values for GENDER in Chakali

We believe that a description that specifies the lexemes in those terms will properly capture agreement in the language. In addition to the values proposed in table 4, a condition constrains the controller to be plural to observe the humanness distinction in agreement. Consider the pronominal forms in table 5:<sup>7</sup>

Pronoun	weak form	strong form
Grammatical function	SUBJ and OBJ	SUBJ
<i>1.sg.</i>	N	miŋ
<i>2.sg.</i>	ɪ	hiŋ
<b>3.sg.</b>	ʊ	<b>wa</b>
<i>1.pl.</i>	ja	jawa
<i>2.pl.</i>	ma	mawa
<b>3.pl.a</b>	<b>a</b>	<b>awa</b>
<b>3.pl.b</b>	<b>ba</b>	<b>bawa</b>

**Table 5:** Weak and Strong pronouns

Thus the pronouns in the language do not distinguish humanness in the singular but only in the plural.<sup>8</sup> Further, the boundary separating human from non-human is subject to conceptual flexibility.

<sup>6</sup>In Corbett (2004, 2006) agreement is defined as: “[t]he element which determines the agreement is the controller. The element whose form is determined by agreement is the target. The syntactic environment in which agreement occurs is the domain. When I indicate in what respect there is agreement, I am referring to agreement features. Number being an agreement feature, it has language specific values such as singular, dual, plural and so on. Finally there may be conditions on agreement (there is a particular type of agreement provided certain other conditions apply)”.

<sup>7</sup>The weak/strong distinction is relevant when pronouns function as subject. Their proper use is conditioned partially by the emphasis put on one participant of the event or the event itself, and by the polarity of the clause in which they appear. The distinction weak/strong has no implication in the present work.

<sup>8</sup>The situation violates universal 37 (and perhaps 45) of Greenberg (1963): “A language never has more gender categories in non-singular numbers than in the singular”. Although very rare, four languages, i.e.

- Fur (fvr), Sudan: Nilo-Saharan, Fur
- Kiowa (kio), Oklahoma, USA: Kiowa Tanoan, Kiowa-Towa, Kiowa
- Sinhala (sin), Sri Lanka: Indo-European, Indo-Iranian, Indo-Aryan, Sinhalese-Maldivian
- Dagaare (dga), Southern Dialects, Ghana : Gur Cental-Northern, Oti-Volta

are known to display a pronominal system resembling Chakali’s. The information was extracted from Dik Bakker’s typological database (<http://www.lotschool.nl/Research/ltrc/agreement.htm>). Vagla (vag), Deg (mzw), Tampulma

In story telling, non-human characters are “humanized”, sometimes called personification, as (3) exemplifies: animals talk, are capable of thoughts and feelings, and can plan to go to funerals. Compare example (3) with (4) where the former reflects personification while the latter does not.

(3) *Domain: antecedent-anaphor*

vaa maa sowa ɔ ŋma dɪ ɔ tʃana ɲmelɪŋmiõ dɪ ba kaa lɪ ɔ  
 dog.SG mother.SG die he said COMP his friend bird’s name COMP 3PL.Gb go leave his  
 maa luho  
 mother funeral

‘The Dog’s mother dies. Dog asks his friend Bird to accompany him to his mother’s funeral.’  
 (lit: (...) that **they** should go to his mother’s funeral.)

In (4) the quantifier *muɲ* “all” agrees in gender with the nouns *nibaala* “men” and *bɔlasa* “elephants”. The form *amuɲ* is used with non-human, irrespective of the number value, and for human if the referent is unique. The form *bamuɲ* can only appear in such a phrase if the referent is human and the number of the referent is higher than one. In this example a contrast is being made between human-reference and animal-reference to show that it is not animacy at large but humanness which presents an opposition in the language.<sup>9</sup>

(4) *Domain: Quantifier + Noun*

- a. ni-baal-a ba-muɲ  
 person(Gb)-male-PL Gb-ALL  
 ‘all men’
- b. bɔla-sa a-muɲ  
 elephant(Ga)-PL Ga-ALL  
 ‘all elephants’

The possessive markers have the same forms as the corresponding weak pronouns: the difference between the two being their syntactic position (i.e. the weak pronoun precedes a verb phrase while the possessive pronoun precedes a noun phrase) and their argument structure (i.e. the weak pronoun is an argument of a verbal predicate while the possessive pronoun marks a relation between a possessor and a possessed). In (5) the target pronouns agree with the covert controller, which is the possessor of the possessive kinship relation. The nouns referring to goat and human mothers, trigger G(ENDER)*a* and G(ENDER)*b* respectively. In cases where the possessor is covert the proper assignment of humanness is dependent on the humanness of the possessed argument (i.e. “their child” is ambiguous in Chakali unless one can retrieve relevant information in the possessed element).

(5) *Domain: Possessive(possessor) + Noun*

- a. (mama.muɲ.na) ba bi-se  
 mother(Gb).all.EMPH POSS.3PL.Gb child-PL  
 ‘their children’ (possessor = human mothers)

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(tpm), Safaliba (saf) and Wali (wlx), to my knowledge, can also be considered languages violating Greenberg’s universal 37.

<sup>9</sup>The gloss for the gender values in the examples is indicated as *Ga* for residuals and *Gb* for human. The non-overt expression of gender is enclosed within round brackets following the Leipzig glossing rules (<http://www.eva.mpg.de/lingua/files/morpheme.html>).

- b. (mama.muŋ.na) a bu-na  
 mother(*Ga*).all.EMPH POSS.3PL.*Ga* goat-PL  
 ‘their goats’ (possessor = goat mothers)

Example (6) displays agreement between the numeral *à-náásè* “four” and the nouns *bóná* (CL.3) “goats”, *tàsá* (CL.1) “languages”, *vííné* (CL.5) “cooking pots” and *bísé* (CL.1) “children”. In Chakali the set of numerals that agrees in gender with the noun they modify are *á-liè* “two”, *á-tòrò* “three”, *à-náásè* “four”, *á-pǎ* “five”, *á-lòrò* “six” and *á-lòpè* “seven”. Here again nouns referring to animate (other than human), inanimate and abstract entities on one hand and human on the other hand do not trigger the same agreement pattern (6a, 6b, 6c vs. 6d). Clearly, as shown below, noun class membership is not reflected in agreement (*tàsá* (CL.1) “languages” triggers *Ga* in (6b) and *bísé* (CL.1) “children” triggers *Gb* in (6d)).

(6) *Domain: Numeral + Noun*

- a. ŋ kpaɣa buɔ-na a-naase  
 1SG have goat(*Ga*)-PL 3PL.*Ga*-four  
 ‘I have four goats’
- b. ŋ ŋma ta-sa a-naase  
 1SG speak language(*Ga*)-PL 3PL.*Ga*-four  
 ‘I speak four languages’
- c. ŋ kpaɣa vii-ne a-naase  
 1SG have cooking.pot(*Ga*)-PL 3PL.*Ga*-four  
 ‘I have four cooking pots’
- d. ŋ kpaɣa bi-se ba-naase  
 1SG have child(*Gb*)-PL 3PL.*Gb*-four  
 ‘I have four children’

Example (7) shows that in coordination construction involving the conjunction form *ni* the targets show consistently *Gb* when one of the conjuncts is human-denoting and the other is not. In (7a) the noun phrase *a baal* “the man” and the noun phrase *ɔ kakumuso* “his donkeys” unite to form the noun phrase acting as controller. The noun phrase *a baal ni ɔ kakumuso* “the man and his donkeys” triggers *Gb* on targets. Consequently, the form of the subject pronoun, the quantifier, the possessive pronoun and the numeral must expose [*ba*] 3.PL.human+. The rule in (7f) constrains coordinate noun phrases to trigger *Gb* if any of the conjuncts is specified as *Gb*. No test has been applied to verify whether the alignment of the conjunct noun phrases was affecting gender resolution.

(7) *Domain: Coordinate structure with ni*

- a. a baal ni ɔ kakumu-so valla kaa lii tamale ra  
 DEF man CONJ his donkey-PL walk go leave Tamale FOC  
 ‘The man and his donkeys walked to Tamale’
- b. ba kuūwou  
 3PL.*Gb* fatigue  
 ‘They are tired’

- c. ba-muŋ naasa tʃɔŋɔ  
3.PL.Gb-all feet.PL damage  
'All feet were hurting'
- d. ba naasa tʃɔŋɔ  
POSS.PL.Gb feet.PL damage  
'Their feet were hurting them'
- e. ba jaa ba-ɲɔ  
3.PL.Gb IDENT 3.PL.Gb-five  
'They were five altogether'
- f. RESOLUTION RULE: When unlike gender values are conjoined (i.e. GENDER *a* and GENDER *b*), the coordinate noun phrase determines GENDER *b* (i.e.  $G_a + G_a = G_a$ ,  $G_a + G_b = G_b$ ,  $G_b + G_a = G_b$  and  $G_b + G_b = G_b$ ).

Examples (3) to (7) demonstrate how one can analyse the humanness distinction as gender. The comparison between humans and animals reflects our intention to uncover the sort of animacy encoded in the language. To conclude this section, a list of words is presented in table 6. The singular and plural forms of each lexeme define the noun class assignment listed in the first column. While the lexemes vary in class, all the lexemes listed trigger GENDER *b* if they function as controller, that is if they are used in a proper agreement domain, and if the condition that demands the controller to be in the plural is satisfied.

cl.	cli.sg.	cli.pl.	Eng.
cl.4	gbèlíí	gbèlíé	handicap
cl.3	híl	hílá	witch
cl.3	wóŋ	wónò	deaf person
cl.3	tíékpàr	tíékpàrà	pregnant
cl.2	pàpàtá	pàpàtàsá	farmer
cl.2	nàtòòkòòrà	nàtòòkòòràsá	shoemaker
cl.3	nèŋjúrúl	nèŋjúrúló	butcher
cl.2	nàŋkpáj	nàŋkpájásá	hunter
cl.2	lólímìlímà	lólímìlímàsá	driver
cl.1	bìé	bìsé	child
cl.1	jálíé	jálísé	muslim
cl.2	dóktà	dóktàsá	doctor
cl.2	pátʃɛɣjára	pátʃɛɣjáràsá	trad. healer
cl.2	sùmmá	sùmmàsá	helper
cl.2	kàpèntà	kàpèntàsá	carpenter
cl.3	nògbár	nògbàrá	cow herder
cl.3	gwògwór	gwògwòrà	dancer
cl.1	kìmmàŋjànà	kìmmàŋjànàsá	drummer
cl.3	bùlbùl	bùlbùlò	musician
cl.2	jòwàdíré	jòwàdírésè	business (wo)man
cl.2	kùórí	kùórusó	chief
cl.2	sònnà	sònnàsá	lover (m. and f.)

**Table 6:** Words triggering GENDER *b* in agreement

## 5. Conclusion

The sections above present a GSW language in which inflectional class (i.e. noun class) and agreement class (i.e. gender) should be distinguished.<sup>10</sup> Each grammatical construct has one specific classificatory method that identifies and defines it. Evidence was presented demonstrating the arrangement of lexemes into two agreement classes and the same lexemes were distributed across five noun classes. The noun class of a lexeme is analysed in a pairwise fashion following one tradition, while a gender is a covert feature which is retrieved on other parts of speech. The gender distinction divides the nominals into a set of lexemes *a* (i.e. human-) and a set *b* (i.e. human+). Therefore, in the grammar of Chakali, any attempt at identifying the noun classes by looking at the agreement patterns will fail.

Many languages of the Upper West region of Ghana show similarities to Chakali in these domains of grammar. Three Oti-Volta languages have been identified which seem to make the same humanness distinction in agreement: some dialects of Dagaari, Wali, Safaleba.<sup>11</sup> All those languages are confined to the same zone. However, some northern dialects of Dagaari do not make the distinction, likewise for all the dialects of Sisaala, which is the northernmost GSW language and the one with most contact with the Dagaari spoken in the north of Ghana and south of Burkina Faso. Further, other Grusi and Oti-Volta languages outside this confined area cannot be analysed in the exact same way (see Awedoba (2003) for Kasem, Tchagbalé (2007) for Tem and Kra (2005) for Koulango).

## References

- Aronoff, Mark (1994). *Morphology by Itself*. The MIT Press.
- Aronoff, Mark & Kirsten Fudeman (2005). *What is Morphology?* Blackwell Publishing.
- Awedoba, Albert K. (2003). Criteria for noun classification in Kasem. von Roncador, Manfred, Kerstin Winkelmann & Ulrich Kleinwillinghöfer (eds.), *Gur papers/Cahiers Voltaïques*, 6, Afrikanistik I, Universität Bayreuth.
- Bodomo, Adams (1994). The noun class system of Dagaare: A phonology-morphology interface. *Working Papers in Linguistics, Norwegian University for Science and Technology*.
- Bodomo, Adams (1997). *The Structure of Dagaare*. Stanford Monographs in African Languages, CSLI.
- Casali, Roderic F. (2003). Atr value asymmetries and underlying vowel inventory structure in Niger-Congo and Nilo-Saharan. *Linguistic Typology* 7, 307–382.
- Corbett, Greville (1991). *Gender*. Cambridge Textbooks in Linguistics, Cambridge University Press.
- Corbett, Greville (2004). Typology of agreement. Hand-out, Landelijke Onderzoekschool Taalwetenschap (LOT), Amsterdam.
- Corbett, Greville G. (2006). *Agreement*. Cambridge Textbooks in Linguistics, Cambridge University Press.
- Corbett, Greville G. & Norman M. Fraser (2000). Gender assignment: a typology and a model. Senft, Gunter (ed.), *Systems of Nominal Classification*, no. 4 in Language, Culture and Cognition, Cambridge University Press.
- Crouch, Marj & Tony Naden (1998). *A Semantically-Based Grammar of Vagla*, vol. 1. Afrikanistik 1, Universität Bayreuth.
- Dakubu, M.E.K. (2005). *Dagaare Grammar*. No. 26 in Collected Language Notes, Institute of African Studies, Legon.
- Dakubu, M.E. Kropp (1997). Oti-Volta vowel harmony and Dagbani. von Roncador, Manfred & Kerstin Winkelmann (eds.), *Gur Papers/ Cahiers Voltaïques*, 2, Afrikanistik I, Universität Bayreuth.
- Gordon, Raymond G. (ed.) (2005). *Ethnologue: Languages of the world*. SIL International, Dallas, Texas, 15 edn. Online version <http://www.ethnologue.com/>.
- Greenberg, Joseph H. (1963). Some universals of grammar with particular reference to the order of meaningful elements. *Universals of Language*, MIT Press, 73–113.
- Kleinwillinghöfer, Ulrich (1997). The Gurunsi languages: A summary of the state of art. von Roncador, Manfred & Kerstin Winkelmann (eds.), *Gur Papers/ Cahiers Voltaïques*, 2, Afrikanistik I, Universität Bayreuth, 43–52.
- Kra, Kouakou Appoh Enoc (2005). Classes et genres nominaux en koulango. *Studies in the Languages of the Volta Basin*, 3.
- Maho, Jouni (1999). *A Comparative Study of Bantu Noun Class*. No. 13 in Orientalia et Africana Gothoburgensia, Acta Universitatis Gothoburgensis.
- Maho, Jouni Filip (2005). *Draft Bibliography for Niger-Congo Noun Class Studies*.
- Manessy, Gabriel (1969a). *Les Langues Gurunsi: I*, vol. 13. SELAF, Paris.

<sup>10</sup>In a related vein, Tchagbalé (2007) and Kra (2005) describe the statuses of *les affixes du substantif* and *les schémas d'accord* in three Gur languages (i.e. Tem, Koulango and Moore).

<sup>11</sup>The situation is different in Dagaari since the language has a class of nouns which is a class “that has exclusively [+human] in it” and “this class is clearly the Central Dagaare rendition of the ba class that is so prevalent in many Mabia languages” (class I: V/ba in (Bodomo, 1997: 63)).

- Manessy, Gabriel (1969b). *Les Langues Gurunsi: II*, vol. 13. SELAF, Paris.
- Manessy, Gabriel (1982). Matériaux linguistique pour servir à l'histoire des populations du sud-ouest de la haute-volta. *Sprache und Geschichte in Afrika* :4, 95–164.
- Manessy, Gabriel (1999). Langues et histoire des peuples voltaïques: signification et limites de la comparaison historique. Mieke, Gudrun, Brigitte Reineke, Manfred von Roncador & Kerstin Winkelmann (eds.), *Gur Papers/ Cahiers Voltaïques*, 2, Afrikanistik I, Universität Bayreuth.
- Matthews, P. H. (1972). *Inflectional Morphology; a Theoretical Study Based on Aspects of Latin Verb Conjugation*. Cambridge University Press.
- McGill, Stuart, Samuel Fembeti & Mike Toupin (1999). *A Grammar of Sisaala-Pasaale*. Institute of African Studies, University of Ghana.
- Moran, Steven Paul (2006). *A Grammatical Sketch of Isaalo (Western Sisaala)*. Master's thesis, Eastern Michigan University.
- Naden, Anthony J. (1982). Class pronoun desuetude revisited. *JWAL* 12:1.
- Naden, Tony (1989). Gur. Bendor-Samuel, J. (ed.), *The Niger-Congo languages*, University Press of America, 140–168.
- Rowland, Ronald (1966). Sissala noun groups. *JWAL* 3:1, 23–28.
- Senft, Gunter (ed.) (2000). *System of Nominal Classification*. No. 4 in Language, Culture and Cognition, Cambridge University Press.
- Steele, Susan (1978). Word order variation: a typological study. Greenberg, Joseph H., Charles A. Ferguson & Edith A. Moravcsik (eds.), *Universals in Human Language*, Stanford University Press, Stanford, vol. IV: Syntax, 585–623.
- Tchagbalé, Zakri (2007). Le sort des classes nominales des langues Gur. (to appear in) *Studies in the Languages of the Volta Basin*.
- Wilson, W. A. A. (1971). Class pronoun desuetude in the Mõõre-Dagbani subgroup of Gur. *JWAL* 8:2, 79–83.

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