

# Evaluative morphology and noun classification: a cross-linguistic study of Africa

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*This paper aims at illustrating how, in languages with grammatical gender, this feature of noun morphology interacts with evaluative morphology. This is done on the basis of a sample of sixty-two African languages. The paper shows that interactions among gender and evaluative morphology are quite regular in the African languages. Two major types of interactions are found depending on whether a language has a rich or a limited number of noun classes. The geographic diffusion and diachronic stability of these interactions are discussed. The correlation between gender and evaluation in the African languages has promising implications for our understanding of the two grammatical domains and fosters further research questions as to how common the relationships between these domains are cross-linguistically, and why they emerge in the first place.*

**Keywords:** *gender, evaluative morphology, African languages, class shift, flexible gender, diachrony, synchrony*

## 1. Introduction

The present paper explores the interaction between noun classification and evaluative morphology in a sample of African languages with grammatical gender. The structure of the paper is as follows. The two grammatical domains investigated in the study, gender and evaluative morphology, are introduced in section 2. The sampling method for the study is discussed in section 3, whereas section 4 presents the major characteristics of the gender systems and the evaluative markers in the sample languages. The results of the investigation are illustrated in detail in section 5 and discussed in 6. Finally, a summary of the study and some conclusive observations are given in section 7.

## 2. Gender and Evaluative Morphology: state of the art

### 2.1 Gender

Gender can be defined as a type of noun classification strategy. *Noun classification strategies* are grammatical constructions which are specialized in the categorization of nouns (Aikhenvald 2003). Different noun classification strategies can be determined according to the following criteria: meaning, number of distinctions within the system, locus of marking, historical development and degree of grammaticalization. Following Corbett (1991, 2011a, 2012), I define gender as the particular type of noun classification strategy which must be reflected in agreement, that is beyond the nouns themselves. For the gender system of a language to be considered productive, the gender of a noun needs to be cross-referenced by those elements in the utterance which entertain some kind of morpho-syntactic relation with the noun itself (typically adjectives,

pronouns, demonstrative, determiners, verbs, relative pronouns but also adpositions and complementizers). One – very often debated – problem with this definition is how to account for those languages, like English, where the only evidence for gender distinctions appears on pronouns. However, if anaphoric pronouns are taken as one of the entities that can agree with nouns (Corbett 2000, 2006), languages like English are to be considered as gendered languages, even though their gender system is not as pervasive as in languages with richer agreement patterns.

Nouns can be assigned to a given gender on the basis of a combination of semantic and formal (morphological and/or phonological) properties. All gender systems are in a sense mixed since “there is always a semantic core (...) but this is never the entire story” (Aikhenvald 2003: 22). The semantic underpinnings of the gender system of a language can be very blurred in actual use. Nonetheless, as shown by Corbett (1991) (see also Dahl 2000a, 2000b; Aikhenvald 2003, among others), it is always possible to recall the fundamental semantic notion(s) on which the categorization is based, even if only for a restricted portion of the nominal lexicon of a language. Semantic gender assignment generally involves nouns referring to animate entities, with the cut-off points within the domain of animacy being highly language-specific: “between humans and animals, between higher and lower animals, or between animals and inanimates” (Dahl 2000a: 101). Animacy, sex, shape and size are the most common semantic notions upon which a gender system is based.<sup>1</sup> Their distribution across language-specific gender systems is not equal: sex-based systems are more frequent than the other types of systems, which are generally built upon some notion of animacy (Corbett 2011b). Moreover, on a general basis, animacy and sex are more frequent criteria of gender assignment than physical properties (shape and size). In many languages “physical properties are only rarely employed to assign genders to animates” (Aikhenvald 2003: 278) and are relevant only for the categorization of inanimate entities.

In morphological gender assignment, individual word formation strategies and/or inflectional classes tend to be associated with a particular gender. When the morphological criterion and the gender value which would be assigned to the properties of its referent, are in conflict, morphology is usually overridden by semantics. The same happens in the case of phonological patterns of gender assignment, that is in those systems in which gender values are associated with peculiar patterns of sounds. For a detailed discussion of morphology-triggered and phonology-triggered gender assignment, see Corbett (1991).

Grammatical gender is a very mature and stable phenomenon in language and presupposes rather long evolutionary chains (Dahl 2004). This often makes it that we cannot be sure about how gender actually came about in a particular language or language family. Among the most common sources of gender in language we count demonstratives and anaphoric pronouns (Greenberg 1978) as well as nouns (Corbett 1991, 2012). The genealogical stability of gender has often been opposed to its relatively low cross-linguistic distribution on a worldwide basis (Nichols 1992): gender is a *cluster phenomenon*, whose diachronic stability is directly proportional to areal and genealogical entrenchment and whose appearance goes hand in hand with the presence of rich morphology.

In languages with grammatical gender, gender distinctions are very much entrenched in the native speaker’s usage. On the other hand, the loss and reduction of gender systems seems to highly correlate with the degree of contact and of adult second language learning (Trudgill 1999; Dahl 2004). The latter phenomenon has been taken as a proof of the fact that gender has a very

low functional yield in language use, in fact no function at all according to scholars such as Trudgill (1999) or McWhorther (2001). Other scholars (Greenberg 1978; Foley and Van Valin 1984) rather suggest that gender systems are grammatical devices whose function is mostly connected with reference tracking and disambiguation. In this line, Dahl (2004) has recently claimed that gender markers synchronically function as *checksum digit* systems,<sup>2</sup> that is as a device for error checking in the on-line process of selection of lexical items by the speaker. In a language like French, where grammatical gender is marked on the article, speakers “know that a masculine article has to go with a masculine noun, if we perceive any other combination we know that something has gone wrong” Dahl (2004: 202). The hypothesis is also supported by neurolinguistic evidence as in the studies by Barber and Carreiras (2005) and Gunter (2000). In this paper, I shall show that another functional yield of gender marking is its contribution to the encoding of size variation (BIG vs. GOOD) and other evaluative meanings (GOOD vs. BAD).

### 2.1.1 *Terminological Note*

The notion of gender adopted in this paper conforms to that of mainstream typological literature, where gender and noun classes are viewed as the same grammatical phenomenon and the term gender is used as a hyperonym of the two. However, when describing language-specific types of gender systems, I use the label *gender* for systems which are built on a limited number of distinctions (from two to three, e.g.: Animate vs. Inanimate or Masculine vs. Feminine vs. Neuter), and the term *noun class* for richer systems (from four to more than five distinctions)(see also Corbett 1991, 2011a; Aikhenvald 2003).

## 2.2 *Evaluative Morphology*

Languages have various means to express the semantic values of BIG vs. SMALL and GOOD vs. BAD. The markers which morphologically encode these distinctions are labelled *diminutives* (= smaller size), *augmentatives* (= bigger size), *appreciatives* (= something is good), *depreciatives* (= something is bad). The same marker can express more than one value at once – for example, small size is often associated with appreciation/endearment or depreciation/contempt – and it is often only on the basis of context that overlapping meanings can be told apart. Diminutive, augmentative, appreciative and depreciative markers belong to the functional and semantic domain referred to as ‘evaluation’. Morphological evaluative markers constitute a sub-domain of the domain of evaluation and are commonly categorized under the label of *evaluative morphology*. They can be found associated with various word classes, e.g. nouns, verbs, adjectives but nouns seem to be the word class category which more typically undergoes evaluative marking (Bauer 1997).

In his survey of evaluative markers in the languages of the Mediterranean area, Grandi (2002) distinguishes between a *descriptive* and a *qualitative* dimension of evaluative morphology, where the former targets the use of evaluative markers in connection with size variation and the latter refers to the encoding of the speakers’ attitudes towards entities of the real world. Körtvélyessy (2012) has a similar understanding of the domain and defines evaluative morphology as the set of morphological strategies that languages use to encode the semantic notion of “less than/more than the standard quantity of substances, qualities, actions and

circumstances, with the concept of standard quantity being a relative one.” Both models lie on a unified approach to the semantics and pragmatics of evaluative markers. In this article, I shall follow this approach by focusing on the marking of evaluative morphology on nouns and, primarily, on the use of evaluative markers in connection with size variation (i.e. on the *descriptive* semantic dimension).

A valuable generalization when looking at types of evaluative markers and their distribution across languages is that diminutives are generally more frequent and somewhat less marked than augmentatives (Bauer 1997; Dahl 2006; Körtvélyessy and Štekauer 2011).

The morphological encoding of evaluation varies across languages. Diminutives and augmentatives can be suffixal, prefixal, infixal or reduplicative. In languages with highly elaborated systems of evaluative morphology, several different strategies can be found. Different markers can be found associated with a particular subset of nouns only, or in relationship with the encoding of particular meanings. In such languages, evaluative markers can co-occur on the same noun and express 1) very small or very big size with respect to the standard size-value of an entity or 2) the combination of endearment/contempt meanings and size-related meanings.

Evaluative markers do not generally induce agreement. The only exception is represented by those languages where diminutives and augmentatives are noun classes or are encoded by means of gender shifts. Both cases will be discussed in details in this article.

Nouns are the most common source of diminutives and augmentatives. The nearly undisputed source of grammaticalized diminutives in the languages of the world is the word for ‘child’ (Jurafsky 1996). This usually starts being used as a sort of classificatory noun to refer to the young age of animate entities and gets gradually extended to inanimate nouns where it targets small size with countable nouns and small quantity with uncountable. Another fairly common source of diminutives are affixes which express relational meaning or resemblance and develop as markers of approximation and later on as diminutives. This is the case of the Italian diminutive suffix *-ino/a*, derived from Latin *-inus/a* which originally meant something like ‘related to X’. In Jurafsky’s terms (1996:553), the ‘related to X’ meaning may also be indicative of late stages of grammaticalization of diminutives markers originally expressing size, when they develop more abstract meanings according to the pattern: ‘small size’ > ‘small type of’ > ‘related to’.

The origin of augmentative markers has not been investigated in detail in the literature on evaluative morphology. The exceptions are very few, as in Grandi’s (2002) overview of the development of augmentatives in the languages of the Mediterranean area, where augmentative affixes are shown to originate from former markers of animacy (Italian and Modern Greek), or as in Matisoff’s (1991) study of diminutives and augmentatives in some languages of South East Asia, where the origin of augmentative markers is said to be the word for ‘mother’.

### 2.3 *Gender and evaluative morphology: their relationship*

The encoding of size-related meanings is quite unanimously mentioned in the literature on noun classification among the possible semantic values of a gender system (Allan 1977; Corbett 1991; Croft 1994; Aikhenvald 2003). However, it is also noticed that, among the most typical semantic underpinnings of gender – i.e. sex, animacy, shape, size –, size is the least likely to occur as an independent criterion for classification. In his seminal work on classifier systems, Allan (1977:

303) for example claims that “classifiers which manifest the category of size ALONE only appear in African languages [...]”<sup>3</sup>

If we look at formal appearance of the relationship between gender marking and evaluation, in languages where gender marking is functional to the encoding of size, variation in size can be expressed by means of noun class or gender shifts. These often also express qualitative evaluative meanings, such as BAD vs. GOOD. It has been observed that in languages with sex-based gender, noun class and gender shifts of this type are driven by stereotypical semantic associations between each sex and each size value (Croft 1994; Aikhenvald 2003). For example, many speech-communities associate 'female' with 'small' and 'male' with 'big', but, as will be shown in this article, the opposite is also found. Finally, it has been noticed (see, for example, Aikhenvald 2003) that the extent to which gender is used to mark physical properties of noun referents, among which size, is subject to the animacy degree of the noun referent. Nouns are more likely to be classified according to physical properties if they refer to inanimate entities.

To date, neither the nature of the relationships between gender and evaluative morphology, nor the variables which determine them, have been investigated in a systematic way. One of the few exceptions is Grandi (2001), where the relationships between evaluative morphology and gender on the one hand, and evaluative morphology and number on the other, are investigated using data from Romance languages, Greek and South Slavonic languages. The present paper aims at beginning to cover this gap by providing an extensive investigation of the relationships between gender and evaluation in the languages of the African macro-area.

### **3. Sampling method**

The typological sample which constitutes the dataset for this paper was built using *genera* as the genealogical unit for language selection. The only exception is represented by the so-called 'Khoisan' area, from which languages were selected on the basis of families.<sup>4</sup> Three isolates, Hadza, Kwadi and Sandawe are also included in the sample.<sup>5</sup> In order to be able to estimate the synchronic distribution and diachronic stability of the detected types of interaction between gender and evaluation, I decided to restrict my investigation to the African macro-area and to include, for each of the selected genera, a number of languages that is proportional to the size of the individual genera. Languages were selected following the classification proposed by the Ethnologue (Lewis 2009). The major data source were reference grammars but, when possible, language experts were also consulted. The sample consists of 62 languages from the genealogical units represented in Table 1. The individual languages are listed in the appendix at the end of the paper.

<b>Genealogical Unit</b>	<b>Number of languages</b>	<b>Level of classification</b>
Atlantic	9	Genus (Family level: Niger-Congo)
Bantu	23	Genus (Family level: Niger-Congo)
Berber	5	Genus (Family level: Afroasiatic)
Cushitic	13	Genus (Family level: Afroasiatic)
Eastern Nilotic	3	Genus (Family level: Nilo-Saharan)
Khoe	4	Family
Ju#Hoan	1	Family
Tuu	1	Family
Hadza	1	Isolate
Kwadi	1	Isolate
Sandawe	1	Isolate

Table 1 *Genealogical units represented in the sample*

#### 4. Some characteristics of the sample languages

In this section, I shall describe the languages of the sample in terms of the grammatical properties which are relevant for the study, that is gender and evaluation. All the 62 languages in the sample have grammatical gender. In fact, the presence of gender was the triggering factor for a language to be included in the sample. Also, all the languages included in the sample have morphological means to encode evaluation. I was interested in estimating how entrenched the encoding of evaluation is in the gender systems of these languages and if there exist evaluative markers which are independent of gender. Since many of the properties of evaluative morphology in these languages are understood only by looking at their intermingling with gender marking, an extensive discussion of such properties is found in section 5. The rest of this section is devoted to characterize the types of gender systems encountered in the sample languages.

Two types of gender assignment systems were found: sex-based and non-sex-based. The figures with respect to each type of gender system are given in Table 2.

<b>Type of gender system</b>	<b>Number of languages</b>	<b>Genealogical group</b>
Sex-based gender	28	Berber, Cushitic; Eastern Nilotic; Khoe; Isolates: Hadza, Kwadi, Sandawe
Non-ex-based Gender	34	Atlantic; Bantu; Ju#Hoan; Tuu

Table 2 *Types of gender systems in the sample languages*

Non-sex-based gender systems are localized in a sub-area of Africa which extends southwards from the Sub-Saharan region. Sex-based gender systems are more scattered around the continent but their concentration is higher in northern Africa as well as in the eastern part of central Africa. Isolated sex-based gender systems are also found in southern Africa among the languages of the Khoe family. As shown in the table, the languages with non-sex-based gender outnumber the number of languages with sex-based gender. The unbalance is explained by the fact that one of the two genealogical groups where this type of system is found, Bantu, consists of more than 500 languages and is therefore represented in the sample by a higher number of languages compared to smaller genera.

There is a clear trend for sex-based gender to pattern with systems which are based on two (Masculine vs. Feminine) or three (Masculine vs. Feminine vs. Neuter) distinctions, and for non-sex-based gender to pattern with larger noun class systems. This tendency is not generalizable to the whole African continent though. The gender system of the Ubangi languages Zande and Ma, for example, consists of four noun classes: Masculine, Feminine, Animal and Inanimate. Heine (1982) refers to this type of gender as a *mixed system*, where sex-based and non-sex-based assignment criteria co-occur. However, in Heine's (1982) typology of African noun classes, this system is claimed to be very rare.

According to the criteria adopted in this study (see section 2), noun class systems range from a minimum of four to more than five distinctions. A noun class system with four distinctions is found in Jul'Hoan, a Ju#Hoan language spoken in Botswana and Namibia. !Xóô, a Tuu language also spoken in Botswana, is the only language of the sample with five noun classes. The most frequent type of noun class system – which was found in 31/34 languages – has more than five distinctions and is generally typical of Atlantic and Bantu languages.<sup>6</sup>

The prototypical noun class marking strategies in Bantu and Atlantic consist of the combination of markers bounded on the noun stem and sets of agreement patterns on verbs, adjectives and pronouns (of different kinds). These agreement patterns index the syntactic relation with the noun. The individual noun classes are inherently singular or plurals. Pairs of singular and plural classes are referred to as genders. In Bantu languages, noun class markers are always prefixal whereas in Atlantic languages, they can be both prefixal and suffixal. In many Atlantic languages class marking is also combined with a complex system of consonant alternation: the phonetic realization of a class marker varies according to the patterns of sound present in the noun stem. The two systems are considered to be related to each other as a shared inheritance from Proto-Niger-Congo. Example (1) illustrates noun class marking in Kirundi (Bantu) whereas example (2) shows noun class marking in the Atlantic language Bandial (Eegima).

- (1) Kirundi (Niger-Congo, Bantu) (adapted from Mel'čuck and Bakiza 1997: 286)
- a. *umun-tu mu-bi*  
CL1-man CL1-amazing  
'an amazing man'
  - b. *aba-ntu ba-bi*  
CL2-man CL2-amazing  
'amazing men'

- (2) Bandial (Niger-Congo, Atlantic) (Sagna 2012: 133)
- |             |             |                  |
|-------------|-------------|------------------|
| <i>w-añ</i> | <i>wawu</i> | <i>u-kkur-e</i>  |
| CL6-cloth   | CL6:DEF     | CL6-be.clean-PFV |
- ‘The clothes are clean’

In these languages, diminutives and augmentatives markers are part of the noun class inventory. Of the 28 languages with sex-based gender, 21 are based on two distinctions (i.e. Masculine vs. Feminine) whereas 7 are based on three (i.e. Masculine vs. Feminine vs. Neuter/Common Gender). Gender systems of the latter type are characteristics of Khoe and Eastern Nilotic languages as well as of the isolate Kwadi. Among the three Eastern Nilotic languages in the sample, Maasai (Eastern Nilotic) has been classified as having two genders. In fact, a third gender is found in the language and it is used to encode location. Payne (1998) refers to this locative gender as a very marginal noun class, whose manifestations are only associated with one noun, *wwéji* ‘place’. The locative gender in Maasai qualifies as an *inquorate gender* in Corbett’s (1991) terms, a gender which is “postulated on the basis of an insufficient number of nouns” that are to be counted as lexical exceptions. An example from a language with three sex-based gender distinctions is given in (3).

- (3) Nama (Khoe) (adapted from Hagman 1977: 153)
- |               |           |           |               |              |           |                 |
|---------------|-----------|-----------|---------------|--------------|-----------|-----------------|
| <i>xa'm-i</i> | <i>ke</i> | <i>'a</i> | <i>lúru-ń</i> | <i>hòá-ń</i> | <i>tì</i> | <i>kà'o-'ao</i> |
| lion-3MS      | DECL      | COP       | animal-3CPL   | all-3CP      | of        | rule-man        |
- ‘The lion is the king of all beasts’

Sex-based gender systems with two distinctions are characteristic of Berber and Cushitic languages as well as of the isolates Hadza and Sandawe. An example from a language with this type of system is given in (4).

- (4) Kambaata (Cushitic) (Treis 2008: 128)
- |               |                 |              |                 |                        |
|---------------|-----------------|--------------|-----------------|------------------------|
| <i>xórb-u</i> | <i>barcum-i</i> | <i>ichch</i> | <i>aaz-í in</i> | <i>afuu'll-ité e'u</i> |
| ball-F.NOM    | chair-M.ABL     |              | interior-M.ICP  | sit-3F.PVE             |
- ‘The ball is [lit. ‘is sitting’] under the chair’

All the languages with sex-based gender, in my sample, encode diminutives and augmentatives by shifting a noun from one gender to the other(s) or by means of markers which are independent of gender.

## 5. Results

Three types of languages are established on the basis of the relationships between gender marking and evaluation attested in the sample. These are represented in Table 3.



Language Type	Number of languages	Stability and diffusion	Evaluative markers independent of gender
Type 1 Languages with rich noun classes: diminutive and augmentatives are noun classes	21	Pervasive but not always stable	Yes
Type 2 Languages with gender: gender shifts are used to encode diminutives and augmentatives	16	Relatively pervasive and stable	Yes
Type 3 No relationship	9	–	Yes
No relevant information retrieved	16	–	–

Table 3 *Results*

The results of the survey reveal two major types of interaction between gender and evaluation in 37/62 languages, that is in nearly the 60% of the examined cases. The remaining 40% is divided between languages where no relationship was found (9), and languages for which no information was retrieved from the sources (16). Languages of Type 1 and 2 are extensively discussed in section 5.1. and section 5.2; in section 5.3 an overview of the characteristics of evaluative markers in languages of Type 3 is given.

### 5.1 *Type 1*

In the languages of this type, typically, diminutives and augmentatives are part of the noun class inventory. In order to derive the diminutive (or the augmentative) of a noun, speakers assign it to the diminutive (or the augmentative) class. Mechanisms of class shift for diminutive and augmentative formation are exemplified in (5) and (6).

- (5) Tonga (Bantu) (Carter 2002: 21)
- a. *mu-sankwa*  
CL1-boy  
'boy'
  - b. *tu-sankwa*  
CL12-boy

- ‘small boy’
- (6) Wamey (Atlantic) (Santos 1996: 160)
- a. *i-ñí*  
CL5-elephant  
‘elephant’
  - b. *bə-ýí*  
CL18-elephant  
‘big elephant’

As a result of language-internal historical development, which is not always possible to track by means of comparative reconstruction, it is common for a Type 1 language to have several diminutive and augmentative class markers. In such cases, the various evaluative class markers available in a language are in complementary distribution with each other. The division of labor between ‘competing’ evaluative class markers follows two patterns: 1) the different evaluative class markers specialize in the encoding of different size nuances, or 2) they are used with different types of nouns. An instance of the former case is found in Lega (Bantu), where the diminutive prefix *tu-* – class 12 – encodes small size whereas the diminutive prefix *sɿ-* – class 19 – encodes extremely small, tiny size:

- (7) Lega (Bantu) (Botne 2003: 430)
- a. *mu-ntu*  
CL1-person  
‘person’
  - b. *ka-ntu*  
CL12-person  
‘small person’
  - c. *sɿ-ntu*  
CL19-person  
‘tiny person’

In Wamey (Atlantic), the augmentative prefix *ga-* – class 20 – is used with nouns originally assigned to class 1 and 3 only (8), whereas the augmentative prefix *ba-* – class 18 – is used to form the augmentative of nouns from any other class (6).

- (8) Wamey (Atlantic) (Santos 1996: 160)
- a. *à-sèn*  
CL1-man  
‘man’
  - b. *ga-sèn*  
CL20-man  
‘big man’

Such patterns of differential marking are usually neutralized under plural reference. Thus, in Lega, the diminutive plural class corresponding to the singular diminutive classes, 12 and 19, is

*tu-* – class 13 –; likewise, in Wamey the augmentative plural class correspondent to the singular augmentative classes is *va-* (class 19).

An interesting morphological property characterizes the evaluative classes of some Bantu languages. In some cases, nouns which are shifted to the evaluative classes do not lose their original class markers. On the contrary, they retain them and combine them with the evaluative class markers, which ultimately control agreement. Let us consider a couple of examples from Bemba and Gikuyu, the two languages of my sample where the system of evaluative marking appears to be split in the sense explained above. The two patterns are attested:

1. Nouns from class 1 and 2 (humans) and 3 and 4 (generally plants and some animals) maintain their original class prefix when shifted to the diminutive class. This is shown in example (9a) and (9b).
2. The original prefix of the noun is not retained. This applies to the majority of the nouns undergoing diminution and is shown in example (9c) and (9d).

(9) Gikuyu (E.20) (Stump 1993: 8-9)

- a. *mû-raata*  
CL1-friend  
'friend'
- b. *ka-mû-raata*  
CL12-CL1-friend  
'small friend'
- c. *i-rima*  
CL5-hole  
'hole'
- d. *ka-rima*  
CL12-hole  
'small hole'

Multiple class marking is found associated with the marking of evaluative morphology elsewhere in Bantu. Kavari and Marten (2009), for example, analyze multiple noun class prefixes in Otjiherero, where they occur in the case of diminutive, augmentative and locative marking as well as with some kinds of plural formation. A systematic survey of multiple class marking in Bantu is still missing in the literature and the occurrence of the phenomenon in individual languages is usually explained in morphophonological terms. At a higher level of abstraction, the phenomenon of multiple class marking is also an interesting indicator of the fact that “the lexical use of noun classes is at least in some instances morphologically distinguished from the derivational uses of classes” (Crisma et al. 2012). For a more detailed discussion of multiple class marking, as well as for the possibility of more semantically oriented explanations of the phenomenon, see Di Garbo (2012).

### 5.1.1 *Stability and diffusion*

As mentioned before in this section, the diminutives and augmentative classes are a major characteristic of the noun class systems of Bantu and Atlantic languages. Synchronically, we can

distinguish between two types of evaluative classes. Certain noun classes, which are very polysemous and extremely productive in actual language use, can be used to derive diminutives and augmentatives when nouns inherently assigned to other classes are shifted to them. On the other hand, other classes are *only* used to derive diminutives and augmentatives and, generally, there are no nouns which are assigned by default to any such classes. These rather seem to be more inherently evaluative and work exclusively as a word formation strategy. In Bidyogo (Atlantic), the so-called class *E*<sup>7</sup> is one of the most frequent in language use and therefore characterized by a pretty varied and vague semantics (it is also the noun class to which loanwords are assigned). The most common number pair of *E* is class *KO* but the combination of the two class values in terms of number distinctions is so heterogenous that in some cases *E* works as the singular and *KO* as the plural whereas in other cases the two markers work in exactly the opposite way. *E* and *KO* also function as evaluative markers and, again, the polarity between the classes is maintained but the semantic values associated to each class vary according to the type of noun to which they are assigned. So *E* is both a diminutive and an augmentative and so is *KO*. Consider the following examples:

(10) Bidjogo (Atlantic) (Segeer 2002: 103)

- a. *kɔ-kɔ-n*  
KO-palm.leaf  
'palm leaf'
- b. *ε-kɔ-n*  
E-palm.leaf  
'small palm leaf'
- c. *ε-man*  
E-rice  
'Rice'
- d. *kɔ-man*  
KO-rice  
'grain of rice'

Opposite to class *E* and *KO*, class *BA* is only used to derive augmentatives and there are no nouns which are inherently assigned to this class.

(11) Bidjogo (Atlantic) (Segeer 2002: 125)

- a. *jɔ-kɔ*  
JO-house  
'house'
- b. *ba-kɔ*  
BA-house  
'big house'

Segeer (2002: 125) mentions the fact that this augmentative class marker in Bidjogo also entails a pejorative connotation.

Similar patterns are also found in Bantu languages. Here, class 7 and 5, which are usually extremely productive and semantically very heterogeneous, can be also used – as it happens in Swahili – to derive diminutives and augmentative, respectively. On the contrary class 12, 13, 19, are more exclusively bounded to the marking of diminutives (as we saw above in the example from Lega). Interestingly, the latter classes are those which show less diachronic stability. When the system of noun class marking of a Bantu language gets eroded, these classes – together with the locative classes – tend to be replaced or paralleled by more recent evaluative markers which are independent of gender.

The marking of diminutives and augmentatives underwent massive change in some Bantu languages: eight languages (Bafia, Eton, Northern Sotho, Shona, Swati, Tswana, Venda, Zulu) out of the 23 Bantu languages selected for this study, show morpho-syntactic strategies for the encoding of diminutives and augmentatives which are an innovation with respect to the traditional pattern of noun class marking. The innovations follow two paths: on the one hand, Northern Sotho, Shona, Swati, Tswana, Venda, Zulu have developed diminutive and augmentative suffixes; on the other hand, Bafia and Eton have strategies for the encoding of diminutives and augmentatives which differ both from class marking and suffixation. Since in the majority of the languages where such developments are attested, the new evaluative markers do not correlate in any way with class marking, these languages are better classified as Type 3 in the typology proposed for this study. Thus, the patterns of grammaticalization briefly illustrated here shall be treated more in detail in section 5.3.

## 5.2 Type 2

Type 2 languages have sex-based gender and use gender shifts as a strategy to encode diminution and augmentation. Example (12) and (13) illustrate this phenomenon in two languages of my sample belonging to different genealogical groups.

- (12) Nama (Khoe) (Hagman 1977: 23)
- a. 'om-s  
house-F  
'house'
  - b. 'om-i  
house-M  
'big house, apartment or office building'
- (13) Maasai (Eastern Nilotic) (Payne 1998: 166)
- a. *enk-anásh*  
F-sister  
'sister'
  - b. *ɔnk-anásh*  
M-sister  
'very large sister' (*pejorative*)

The examples show two cases in which gender shifts alter the referential properties of nouns with respect to the property of size. In Nama, this function of gender marking is restricted to inanimate

nouns and “express[es] that there is something unusual about the referent of the noun” (Hagman, 1977: 23). The nature of the semantic deviation is, as Hagman puts it, hard to pin down since it strictly depends on the semantics of the noun which undergoes gender shift and on the general discourse context. If the usual appearance of a noun referent is not large/big, the use of gender shift indicates increased, large/big size; on the other hand, if it is usual for a noun referent to be large/big, gender shifts mark unexpected small size. Usually, if the largeness or smallness of size are undesirable for the object in question, the encoding of dimensional variation also entails derogation. The example from Maasai shows that speakers of this language may use gender shifts with human nouns to convey size differences (and derogation) but not natural gender distinctions. This is a quite unique pattern cross-linguistically: the use of gender shifts to encode diminutives and augmentatives is usually restricted to inanimate nouns, as in the example from Nama (see also section 2.3). In my sample, Maasai is the only language where this use is attested with animate nouns.

In the majority of cases, gender shifts are driven by the association between feminine gender and small size, and masculine gender and big size. However, the opposite (feminine is large/big and masculine is small) is also attested in one language, Hadza. Notice that masculine is the unmarked gender in Hadza.

(14) Hadza (isolate) (Edenmyr 2004: 16)

- a. *ʔato*  
small.axe.M  
'small axe'
- b. *ʔato-ko*  
axe-F  
'large axe'

In the languages with three gender distinctions (Masculine, Feminine, Neuter/Common), gender shifts which are relevant for the encoding of evaluative meanings may be restricted to the Masculine and the Feminine genders only (as in the Khoe languages) or may extend to the third gender. This is the case of the Eastern Nilotic languages Turkana and Karamojong. The third gender in Turkana and Karamojong – labelled as Neuter Gender in my sources –, is the lexical gender of a very limited number of nouns as opposed to the Feminine and the Masculine. However, it has a larger range of uses than the third gender in the sister language Maasai, where, as mentioned above, the only evidence for a third gender is restricted to one noun only (see section 4). In Turkana and Karamojong, inherently neuter nouns are nouns which refer to the offspring of animate entities or to individual members/instances of greater groups. In Turkana, either animate or inanimate feminine and masculine nouns can be shifted to the Neuter gender to encode young age, small size or small quantity depending on the semantics of the noun and its countability properties.

(15) Turkana (Eastern Nilotic) (Dimmendaal 1983: 218)

- a. *ŋa-kɔt*  
F.PL-blood  
'blood'

- b. *ŋi-kɔt*  
N.PL-blood  
'a little blood'
- c. *e-dya*  
M.SG-boy  
'boy'
- d. *i-dya*  
N.SG-boy  
'small boy'

In Karamojong, shifts to the Neuter gender are only used with animate nouns to indicate offspring (Novelli 1985).

### 5.2.1 *Stability and diffusion*

As already mentioned in section 4, the use of gender shifts to encode evaluative meanings was found among the Berber, Cushitic and Khoe languages as well as in the isolates Hadza and Sandawe. The diffusion of the phenomenon within the individual genealogical groups varies: it is systematically attested in all the sampled Berber varieties and in all the sampled Khoe languages (with the only exception of !Ani). As for Cushitic, size-related gender shifts were found only in 3 languages (Awngi, Bedawiyet and Daasanach), but I cannot exclude that they also exist in those Cushitic languages for which no information was retrieved in my sources.

Gender shifts may not be the only strategy available in a Type 2 language to encode evaluation. Evaluative markers independent of gender have been found to coexist with gender shift: in Nama, for example, there exists a diminutive suffix, *-rɔ* which works independently of gender shift. An augmentative suffix, *-kàra* is also found and it is often used in combination with gender shifts to refer to extra-large size (Hagman 1977: 27).

Not much can be said about the diachrony and stability of the phenomenon of size-related gender shifts. Two interesting facts can be pointed out though with respect to two of the genealogical groups in the sample.

In the case of Eastern Nilotic languages, the phenomenon is associated with a relatively young gender system. Sex-Based Gender is an innovation of Eastern Nilotic languages which opposes them to the closely related languages of the Western Nilotic branch, where there is no grammatical gender. The gender system of Eastern Nilotic languages originated from demonstratives used in combination with pronominal modifiers derived from the noun for 'member/person' and the word for 'girl/daughter', respectively. A detailed reconstruction of the origin of gender in Eastern Nilotic languages is found in Heine and Vossen (1983).

In Berber languages, size-related gender shifts are pervasive in language use but they are restricted to inanimate nouns referring to objects that "have different sizes, for instance a small and a big pot, a small and a big jewel, etc." (Amina Mettouchi p. c.). On a synchronic basis, we may say that the association between a gender value and a size value is based on stereotypical associations of the type 'female is small' vs. 'male is big'. Diachronically, the sex-based gender system of the Berber languages is the result of reanalysis of markers which were at first used only to signal definiteness (Mettouchi 2000). In Mettouchi's (2000) analysis, it is also suggested that

the diminutive/partitive meaning of the *-t-* marker – the feminine marker in contemporary Berber languages – might have been prior to the feminine value.

In his overview of gender systems in African languages, Heine (1982) refers to size-related gender shifts as phenomena which are typical of languages with relatively free or flexible gender systems. In such languages the relation between nouns and gender is rather loose and nouns can be assigned to different genders on the basis of discourse context. As observed in this and previous sections, the degree of flexibility tends to be constrained by the referential properties of nouns and, especially, by their degree of animacy: nouns that refer to human beings have a tighter relation with the gender value they are inherently assigned to and do not often undergo size-related gender shifts.

### 5.3 Type 3

In this section, I shall briefly discuss those languages where evaluative markers do not show any correlation with gender marking. I shall begin by looking at those Bantu languages which have lost their evaluative noun classes and encode diminutives and augmentatives independently of gender, by means of suffixes, clitics and periphrastic constructions (see section 5.1). The grammaticalization of suffixes as morphological devices for the marking of diminutives and augmentatives is a diachronic development restricted only to the southeastern Bantu languages. In two of the six languages of my sample where diminutive and augmentative suffixes are found – Shona and Venda – the older prefixes co-exist with the newer constructions; in Northern Sotho, Swati, Tswana and Zulu, the class prefixes have been completely replaced by the newly grammaticalized suffixes. Generally speaking, different languages within the area attest different stages of grammaticalization of the evaluative suffixes. The diminutive suffix derives from the Proto-Bantu word for ‘child’, *\*jana* (Creissels 1999) or *\*yana* Güldemann (1999). The augmentative suffix is found in Swati, Tswana and Zulu and originates from the Proto-Bantu noun *kádi*, ‘woman’. Interestingly, the suffix is also attested in Shona, Northern Sotho and Venda but, in these languages, is only used to encode feminine reference. The grammaticalization of diminutive and augmentative suffixes in the southeastern Bantu languages has been explained as a result of areal contact with head-final ‘Khoisan’ languages spoken in the same geographical area. For a detailed overview of the phenomenon see Güldemann (1999) and Di Garbo (2012)<sup>8</sup>.

In Bafia, the diminutive is constructed periphrastically: the noun to be diminutivized is preceded by the word *mán*, ‘child’ (plural: *bɔ́n*), which behaves as a fully lexical noun and triggers agreement. Augmentatives are also periphrastic in Bafia: the noun for ‘thing’ is used in combination with the noun to be augmented. In Eton, the diminutive and the augmentative are encoded by means of proclitic words. The lexical source of the diminutive proclitic *mɔ=* (plural *bɔ*) is the noun for ‘child’ (*mɔ́ɔ/ bɔ́Nɔ*, 1/2), from which it differs in virtue of some phonological erosion and the floating high tone. The augmentative proclitic, *mòd* (plural *bòd*), is related to the word for ‘person’ and differs from it only in its floating high tone (Van de Velde 2008: 208). Interestingly, Bafia and Eton belong to the same Bantu area, zone A of Guthrie’s classification. It might be that their innovations in the marking of diminutives and augmentatives are geographically restricted as much as those encountered in the southeastern Bantu languages.

Finally, evaluative markers independent of gender have been also found in Jul’Hoan (Ju#Hoan) and ! Xóô (Tuu). In Jul’Hoan, diminutives are marked by the suffix *ma-*, which is



derived from the word for child. In !Xóô, diminutives are encoded by means of the prefix *ka-*, the suffix *-ba* or a periphrastic construction where the noun to be diminutivized is followed by the word *oàa* (plural *oâni*), ‘child’.

## 6. Discussion

As already pointed out by previous investigations such as Allan (1977), this study confirms that evaluative morphology and noun classification (in the form of gender marking) are in strong correlation in the languages of Africa. The nature of this correlation was shown to be a function of the type of gender system that a language has, the major division being between non-sex-based noun class systems –where diminutives and augmentatives are noun classes –, and sex-based gender – where gender shifts can be used to encode evaluative meanings –. The study also confirms that the semantic property of size may be a productive criterion for the classification of nouns but never centrally prominent, neither synchronically nor diachronically, in the two types of gender system encountered in the sample languages. In noun class languages, evaluative meanings are part of the semantic potential of very polysemous classes or are associated with classes that are practically used only as noun formation processes. In gender languages, size-related gender shifts are generally restricted to inanimate entities, with the exception of those languages where the neuter gender is used to encode young age or small size. Generally speaking, the occurrence of ‘size’ as an independent criterion for noun classification is:

- absent in gender systems with two distinctions;
- more likely to occur in systems where the number of distinctions equals 3 – as in Turkana and Karamojong – or is higher than 3 – as in Bantu and Atlantic languages.

In sex-based gender systems, where Masculine and Feminine are the gender values, the polarity between genders is variously exploited in connection with size variation and other evaluative meanings. Gender shifts mostly enhance physical properties of inanimate referents but the opposite was also found, even though in a limited number of cases (Maasai, Turkana and Karamojong).

Finally, in all the languages where diminutive markers independent of gender were found, the historical source of each such marker is the same: ‘child’. This confirms the universal tendencies in the diachrony of diminutive markers outlined by Jurafsky’s (1996) work. Similar generalizations cannot be made for the augmentative markers not correlating with gender that were found among the language of the sample. If we exclude those cases for which no information about the origin of these markers was recovered, three different sources were found: “woman” (southeastern Bantu), “thing” (Bafia), “person” (Eton).

## 7. Conclusions and suggestions for future research

Evaluative morphology and gender are grammatical strategies for the categorization of nominal reference – together with number, definiteness and case marking –. Their semantics and functions differ but – as shown in this study – they may often be not clear-cut. Thus, a unified approach which looks at these grammatical phenomena as components of one grammatical macro-domain

(on the model of Tense, Aspect, Mood and Evidentiality systems) might be useful to understand the nature of their mutual correlations. The heterogeneous morphosyntactic properties which characterize the individual grammatical phenomena – e.g. derivation vs. inflection, analytic vs. periphrastic – could be explained as a result of the more or less peripheral location of a grammatical phenomenon within the conceptual space of the alleged semantic and functional domain.

With the present study I hope to have provided an initial contribution to the verifiability of this hypothesis.

## Notes

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<sup>1</sup>See Croft (1994) for a discussion against the significance of the notion of shape in the semantics of noun class systems.

<sup>2</sup>Checksum digits are added to bank account and card numbers as a security control device. They are calculated on the basis of different algorithms. For example, the checksum digit of a code could be the last digit of the sum of its individual digits.

<sup>3</sup>Size-related gender and noun classes are found elsewhere in the world. See, for example Brown and Dryer (nd) on Walman (Torricelli) and Terrill (2002) on Motuna – Siwai – (South Bougainville, Buin).

<sup>4</sup>I use the term 'Khoisan' as a label of convenience to refer to the following independent language families: Khoe, JuHoan, Tuu and !Ui. In the classification of the African languages by Greenberg (1963), these languages are classified as part of one genealogical unit. Nowadays, the term is used to refer to the above mentioned language family as a linguistic area within Africa, and the hypothesis of genealogical relatedness between the different groupings is rejected (Dimmendaal 2008).

<sup>5</sup>The three isolates are also conventionally labelled as 'Khoisan' in the literature.

<sup>6</sup>In Bila (Bantu), the Noun Class System massively reduced to two Genders: Animate and Inanimate.

<sup>7</sup>In his grammar of Bidjogo, Segerer (2002) uses capital letters to refer to the phonological realization of a class marker; this conventionalized form is also used in the glosses as a mean to refer to the individual noun classes, which are not numbered. In the example texts, the noun classes are transcribed according to orthographic conventions that take into account phonetic variation.

<sup>8</sup>Interestingly, both the diminutive and the augmentative suffix in the southeastern Bantu languages contribute to the encoding of natural gender distinctions. The diminutive suffix *-ana* is used as a marker of feminine reference in very specific contexts (mostly with animal names or with colour adjectives), whereas the suffix resulting from the grammaticalization of *\*kádi*, 'woman', is used to derive feminine nouns or augmentatives. The phenomenon is investigated in some details by Creissels (1999).

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### Abbreviations

ABL = ablative; CL = noun class; COP = copula; C = common gender; DEC = declarative; DEF = definite; ICP = instrumental-comitative-perlative; F = feminine; M = masculine; PL = plural; SG = singular; PVE = *e*-perfective.

### Appendix: The language sample

Language	Iso code	Classification
Qimant	ahg	Afro-Asiatic, Cushitic
Awngi	awn	Afro-Asiatic, Cushitic
Tunen	baz	Niger-Congo, Bantu
Bedawiyet	bej	Afro-Asiatic, Cushitic
Bemba	bem	Niger-Congo, Bantu
Bila	bip	Niger-Congo, Bantu
Bydjogo	bjg	Niger-Congo, Atlantic
Bandial	bqj	Niger-Congo, Atlantic
Baiso	bsw	Afro-Asiatic, Cushitic
Dibole	bvx	Niger-Congo, Bantu
Chiga	cgg	Niger-Congo, Bantu
Wamey	cou	Niger-Congo, Atlantic
Dahalo	dal	Afro-Asiatic, Cushitic
Daasanach	dsh	Afro-Asiatic, Cushitic
Eton	eto	Niger-Congo, Bantu
Fulfulde	ffm	Niger-Congo, Atlantic
Oromo, Borana-Arsi-Guji	gax	Afro-Asiatic, Cushitic
Dirasha	gdl	Afro-Asiatic, Cushitic
Gola	gol	Niger-Congo, Atlantic
lAni	hhh	Khoe
Hadza	hts	Isolate
Iraqw	irk	Afro-Asiatic, Cushitic
Nafusi	jbn	Afro-Asiatic, Berber
Kabyle	kab	Afro-Asiatic, Berber
Karamojong	kdj	Nilo-Saharan, Eastern Nilotic
Gikuyu	kik	Niger-Congo, Bantu
Kagulu	kki	Niger-Congo, Bantu

<b>Language</b>	<b>Iso code</b>	<b>Classification</b>
Bafia	ksf	Niger-Congo, Bantu
Kisi	kss	Niger-Congo, Atlantic
Kambaata	ktb	Afro-Asiatic, Cushitic
Ju#Hoan	ktz	Ju#Hoan
Kwadi	kwz	Isolate
Lega	lea	Niger-Congo, Bantu
Lingala	lin	Niger-Congo, Bantu
Mongo-Nkundu	lol	Niger-Congo, Bantu
Maasai	mas	Nilo-Saharan, Eastern Nilotic
Makaa	mcp	Niger-Congo, Bantu
Nama	naq	Khoe
Ndengereko	ndg	Niger-Congo, Bantu
Naro	nhr	Khoe
Xóô	nmn	Tuu
Sotho, Northern	nso	Niger-Congo, Bantu
Nyanja	nya	Niger-Congo, Bantu
Rendille	rel	Niger-Congo, Bantu
Sandawe	sad	Isolate
Shona	sna	Niger-Congo, Bantu
Noon	snf	Niger-Congo, Bantu
Somali	som	Afro-Asiatic, Cushitic
Swati	ssw	Niger-Congo, Bantu
Swahili	swa	Niger-Congo, Bantu
Tamasheq (Kidal)	taq	Afro-Asiatic, Berber
Themne	tem	Niger-Congo, Atlantic
Tamahaq	thv	Afro-Asiatic, Berber
Tonga	toi	Niger-Congo, Bantu
Tsamai	tsb	Afro-Asiatic, Cushitic
Tswana	tsn	Niger-Congo, Bantu
Turkana	tuv	Nilo-Saharan, Eastern Nilotic
Venda	ven	Niger-Congo, Bantu
Wolof	wol	Niger-Congo, Atlantic
Khwe	xuu	Khoe
Zenaga	zen	Afro-Asiatic, Berber
Zulu	zul	Niger-Congo, Bantu

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In *SKASE Journal of Theoretical Linguistics* [online]. 2013, vol. 10, no. 1 [cit. 2013-02-04]. Available on web page <[http://www.skase.sk/Volumes/JTL22/pdf\\_doc/07.pdf](http://www.skase.sk/Volumes/JTL22/pdf_doc/07.pdf)>. ISSN 1339-782X.

