

From differential grammatical treatment to gender: animacy-based noun classification in Central Africa

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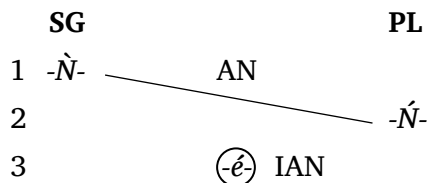
1 Introduction

- + Africa as a global hotspot of languages with gender (Heine 1982, Nichols 1992), notably:
 - a) complex systems with non-sex-based gender in Niger Congo languages of western, central and southern Africa known under the term “noun classes”
 - b) bi- or tripartite systems with sex-based gender in mostly Afroasiatic languages of northern and northeastern Africa
 - c) less known and typologically rare systems in Kalahari Basin Area (Güldemann 2000)
 - > accounts for large majority of African gender systems dealt with in typological literature
 - + far less known system type found in Central Africa: bipartite with animacy-based genders
 - > e.g., Vorbichler’s (1963) description for the Ituri Bantu language Beeke (D335):

(1)a.	<i>nyama ndzo</i>		<i>ba-nyama mbaa</i>
	animal AN.SG:DEM		PL-animal AN.PL:DEM
	this animal		these animals
b.	<i>bitu ni</i>		<i>ba-bitu ni</i>
	bow IAN:DEM		PL-bow IAN:DEM
	this bow		these bows (Vorbichler 1963: 33)
(2)a.	<i>seki endi</i> [<i>< a-endi</i>]		<i>seki bendi</i> [<i>< ba-endi</i>]
	tortoise 3AN.SG.SBJ:go		tortoise 3AN.PL.SBJ:go
	the tortoise went		the tortoises went
b.	<i>singa esei</i>		<i>ba-singa esei</i> [<i>< ? V-(e)sei</i>]
	trap 3IAN.SBJ:sleep		PL-trap 3IAN.SBJ:sleep
	the trap “slept” (= remained set up)		the traps “slept” (Vorbichler 1963: 33)
(3)a.	<i>mè-m̄-èní</i>	<i>tò</i>	<i>mè-m̄-èní</i>
	1SG.SBJ-3AN.SG.OBJ-see ?		1SG.SBJ-3AN.PL.OBJ-see ?
	I saw him/[her]		I saw them (animal, human)
b.	<i>mè-é-èni</i>	<i>tò</i>	
	1SG.SBJ-3IAN.OBJ-see ?		
	I saw it/them (thing, tree) (Vorbichler 1963: 33)		

Agreement class	Adjective/numeral	Possessor pronoun	Demonstrative	Subject on verb	Object on verb
1 AN.SG	<i>ma-</i>	<i>yV-</i>	<i>ndzo</i>	<i>à-</i>	<i>-Ñ-</i>
2 AN.PL	<i>ba-</i>	<i>(m)bV-</i>	<i>mbaa</i>	<i>ba-</i>	<i>-Ñ-</i>
3 IAN	<i>a-</i>	∅	<i>(i)ni</i>	<i>?V-</i>	<i>-é-</i>

Table 1: Agreement classes across various targets in Beeke



Note: agreement classes represented by verbal object indexation

Figure 1: The animacy-based gender system of Beeke (after Vorbichler 1963)

- + few transparent descriptions of such Central African systems as in Figure 1 unless there are further semantic elaborations (as, e.g., in Zande - see §2.2.2 below)
- + Vorbichler (1963: 23-4, 27, 34; 1968: 414-5) with a concrete hypothesis about some prehistorical substrate interference in the specific context of the northeastern Ituri rainforest potentially related to languages spoken by “Pygmy” forager groups before their shift to languages of food-producing groups that colonized the area later

Die Entdeckung dieser Unterscheidung für das Sua-Kango ist das Verdienst Schebestas. Eine noch zu lösende Frage bleibt es, ob und wie diese Unterscheidung in der ostsudansischen Gruppe Mamvu-Lese-Bvuba-Efe durchgeführt ist und wie sich die Verhältnisse in dem den Mangbetu-Dialekten nahestehenden Asua-ti darbieten. Bewahrheitet sich die Zweiteilung von Lebewesen und Nichtlebewesen für alle Gruppen der Waldneger- und Pygmäendialekte des Ituri-Waldes, so kann diese nur aus einer dritten, noch immer wirksamen Sprachschicht erklärt werden, denn weder die Bantu- noch die Ostsudansprachen kennen sie von Haus aus. [We owe the discovery of this (animacy-based gender) distinction in Sua-Kango (part of Bira-Komo Bantu) to Schebesta. A problem still to be resolved is whether and how this distinction is made in the East Sudanic Mangbutu-Efe group and what the situation is in Asua-ti, the close relative of the Mangbetu dialects (all part of Central Sudanic!!!). Should the division into animate and inanimate entities be shown to hold for all groups of rainforest-farmer and Pygmy forager languages of the Ituri, it can only be explained by means of a third still active language stratum, as neither Bantu nor East (aka Central) Sudanic languages know it.]

- + gender = noun classification expressed by morphosyntactic agreement
- > in line with Corbett (1991) and others, includes pronominal gender systems!
- + \pm animate categorization is a language-specific phenomenon - cf., e.g., discussion of such systems in Algonquian (Black-Rogers 1982, Straus and Bright. 1982, Goddard 2002)
- > + animate \neq human + animal nouns, as in Bantu “animate concord” where animals are treated to different degrees as nouns of human gender 1/2 (cf., e.g., Wald 1975)
- > \pm animate and \pm human viewed here as basic “macroenders” (Nichols 1992)
- + linguistic categorization of nouns into classes can be conveyed by various grammatical phenomena other than gender in the above technical sense
- > highly relevant in the area dealt with here
- + **goal of the paper:**
- (I) survey the types of noun classification in the languages of Central Africa straddling the wider zone of the northern rainforest transition
- > focussing on gender systems but including signs of animacy-based grammatical behavior
- (II) trace the diachronic evolution of animacy-based noun classification
- (III) discuss relevance for African areal typology (general typology treated elsewhere)

2 Nominal classification in Central Africa

2.1 Language inventory and classification

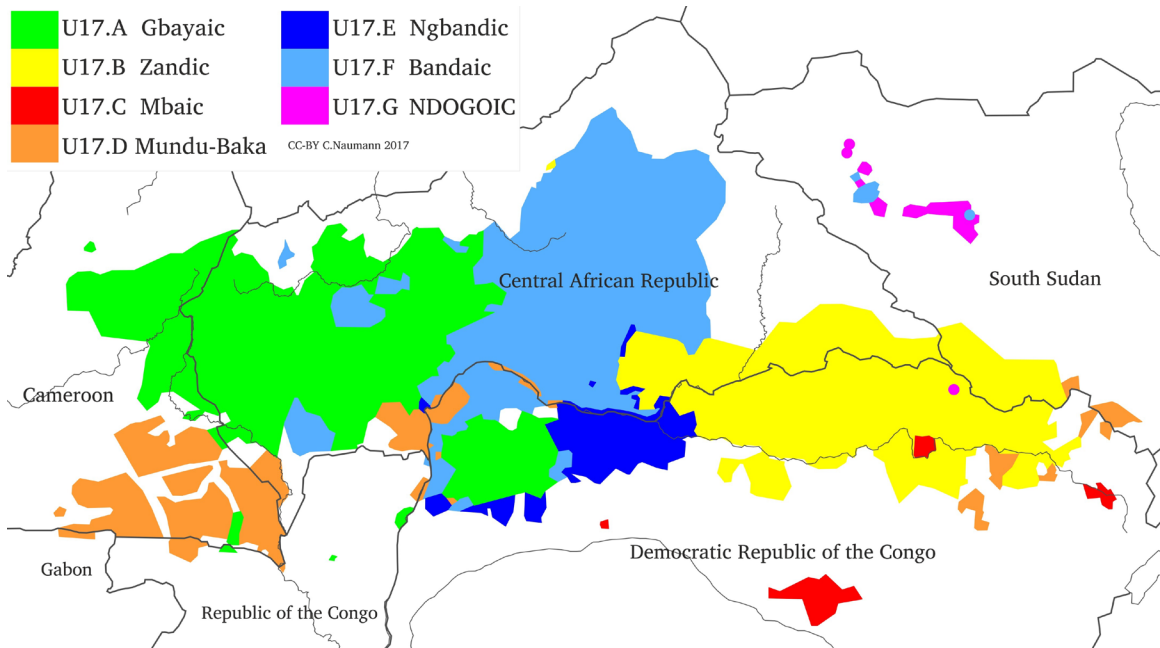
- + Vorbichler’s hypothesis assumes 3 linguistic “layers”: “Pygmy”, “East Sudanic”, Bantu
- > in need of assessment according to modern genealogical language classification
- + widely accepted African classification by Greenberg (1963) methodologically and empirically not robust (cf., e.g., Campbell and Poser 2008) > Güldemann (2018)
- + Vorbichler’s “East Sudanic” = Tucker’s (1940) areal-linguistic concept: comprises Central Sudanic and Ubangi, which itself subsumes independent Gbayaic in the west
- > more than 3 language groups, treated here as: Bantu, UBANGI, Central Sudanic, “Pygmy”

1. Bantu

- + largest language family of Niger-Congo with origin around the Nigeria-Cameroon border area, inconclusive sub-classification but progress with Grollemund et al. (2015)

2. UBANGI (including Gbayaic)

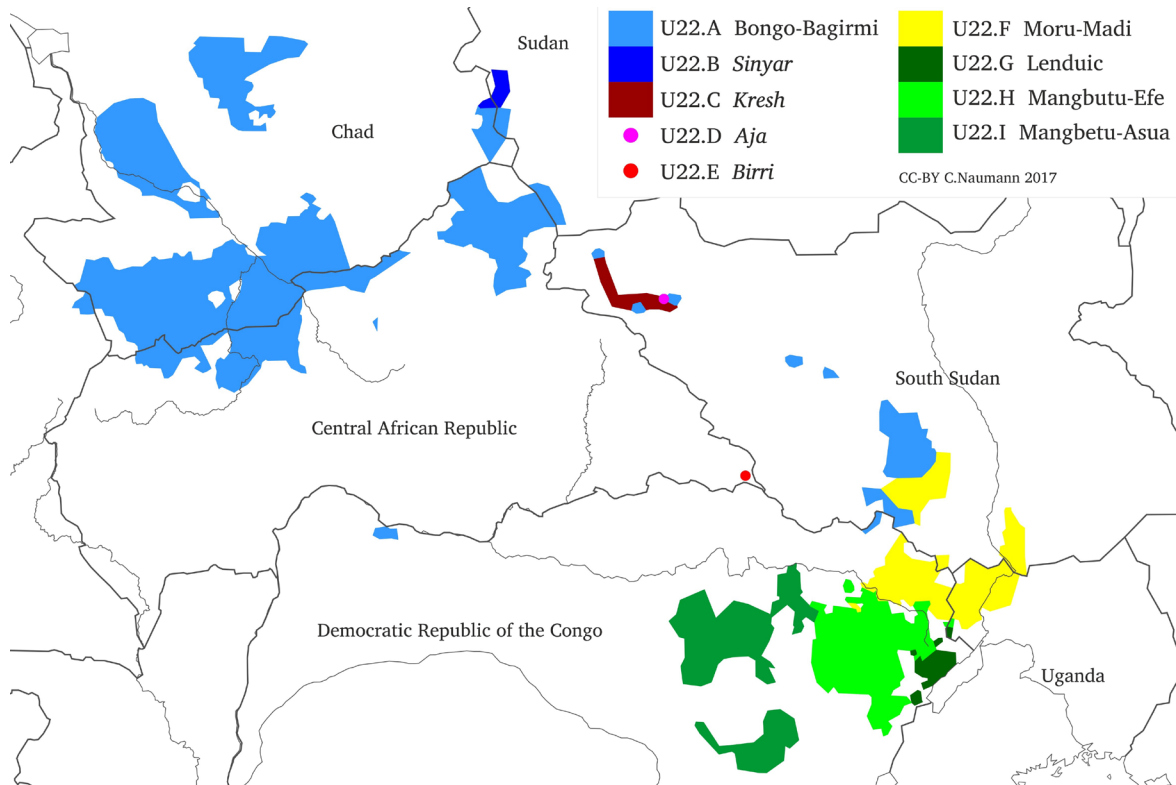
- + robust Niger-Congo member but not proven as a single clade in the family tree > Map 1
- + particularly Gbayaic in the west not closely related to Ubangi core (Moñino 2010b)
- + Ubangi core comprises more than half a dozen subgroups: Mbaic, Ngbandic, Zandic, Mundu-Baka, Bandaic, NDOGOIC (itself heterogeneous in comprising Narrow Ndogoic, Feroqe-Mangaya, *Togoyo*, *Indri* whose relation to each other is unclear)



Map 1: Ubangi language groups (Güldemann 2018)

3. Central Sudanic

- + independent family rather than proven constituent group of Nilo-Saharan
- + close to ten subgroups: Bongo-Bagirmi, *Sinyar*, *Kresh*, *Aja*, *Birri*, Moru-Madi, Lenduic, Mangbutu-Efe, Mangbetu-Asua > Map 2



Map 2: Central Sudanic language groups (Güldemann 2018)

4. “Pygmy” aka Central African forager languages

+ all groups assumed to have shifted to farmer languages, often not their current neighbors

Lineage

Language (variety)

Central Sudanic

Mangbutu-Efe **(Efe)**

Mangbetu-Asua *Asua*

Niger-Congo

Gbayaic Bofi

Ubangi (Mundu-Baka) **Baka**

Bantoid (Non-Bantu) Bezan

Bantoid (Narrow Bantu) many and in numerous sub-groups, e.g.:

Zone A: **Kola~Gyeli (A801)**

Zone B: Koya (B221), *Bongwe* (B303)

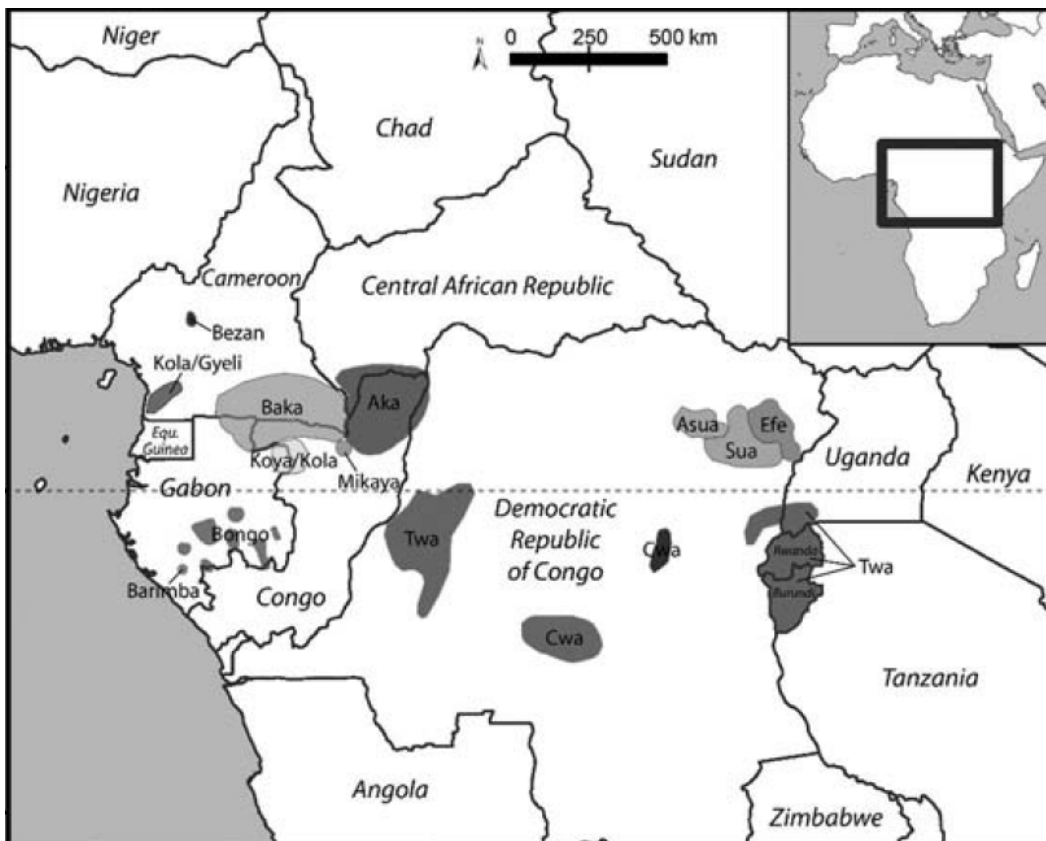
Zone C: **(Y)aka (C104)**, *Nkundo Twa*, *Konda Twa*, *Foto*, *Jofe* (all C60)

Zone D: 4 varieties in 3 sub-groups: Kango and Sua 1 in Bira-Komo, Tchwa in Huku, Sua 2 in Liko-Bali group (Demolin 2008)

Zone J: *Interlacustrine Twa*

Note: **Bold** = grammar (Efe description may concern also Mvuba), *Italic* = sketch

Figure 2: Genealogical classification of sufficiently known forager language varieties



Map 3: Forager groups in Central Africa (Bahuchet 2012: 12)

2.2 Group surveys

2.2.1 Bantu

- + Bantu languages known for an elaborate gender system of a particular semanto-syntactic profile to be reconstructed for Proto-Bantu: semantic trait of \pm human due to human gender 1/2 vs. all other genders, which are essentially non-human
- + many languages in Central Africa with gender systems that are considerably restructured (see Di Garbo and Verkerk 2020; Verkerk and Di Garbo 2020; Güldemann, Di Garbo and Verkerk in prep.)
- > two major changes that are in principle independent of each other but can co-occur:
 - a) reduction of gender inventory - up to complete loss
 - b) macrogender distinction shifts to different degrees from \pm human to \pm animate

Changes		Gender according to \pm animacy	
		NO	YES
Gender reduction	NO	I Inherited default	II Pagibeete etc.
	YES	III Nzadi etc.	IV Beeke etc.

Table 2: Bantu languages and two types of gender-system restructuring

2.2.2 UBANGI

1. Gbayaic

- + recurrent animacy-based gender distinction in various 3rd-person pronouns

Family sub-classification			Language variety	AN	IAN
Southern-Western	Western	Bokoto-Gbeya	Gbeya	$\text{ʔ}\grave{\text{a}}$	$-\grave{\text{a}}$ POSSR
		Northwest	Yaayuwee	$\text{ʔ}\grave{\text{a}}$	$-\grave{\text{a}}$ OBJ
	Southern		'Buli	$\text{ʔ}\grave{\text{a}}$	$y\grave{\text{o}}$ SBJ
Eastern			Manza	$\text{ʔ}\grave{\text{a}}$	$m\grave{\text{a}}$ SBJ
			Ngbaka Minagende	$\text{ʔ}\grave{\text{a}}$	$m\acute{\text{a}}$ SBJ

Table 3: Gender distinction in 3rd-person singular pronouns across Gbayaic (after Moñino 1995: 65, 98, 169, 227, 242, 421-2; 2010a: 89)

- (2)a. $d\check{\text{o}}\eta\text{-}\text{ʔ}\grave{\text{a}}$ [dòŋǎǎ] Gbeya (Bokoto-Gbeya)
 back-3SG.AN
 his/her back ~ behind him/her
- b. $d\check{\text{o}}\eta\text{-}\grave{\text{a}}$ [dòŋǎǎ]
 back-3SG.IAN
 its back ~ behind/after it (Moñino 1995: 169)

- (3)a. *ʔám z̀kák ʔà* Yaayuwée (Northwest)
 1SG see 3SG.AN
 I have seen him/her.
- b. *ʔám z̀kákà*
 1SG see:3SG.IAN
 I have seen it. (Moñino 1995: 65)
- (4)a. *ʔà gàsá* ’Buli (Southern)
 3SG.AN be.big
 S/he is big.
- b. *yò gàsá*
 3SG.IAN be.big
 It is big. (Moñino 1995: 98)
- (5)a. *mbáláwálá yú, à úsú tí bùlúkù* Ngbaka Minag. (Eastern)
 monitor.lizard escape 3SG.AN hide under grass
 le varan s’enfuit, il se cacha sous les herbes.
- b. *tè má tiá*
 tree 3SG.IAN fell
 l’arbre est tombé (Maes 1959: 19-20, 34, 120)

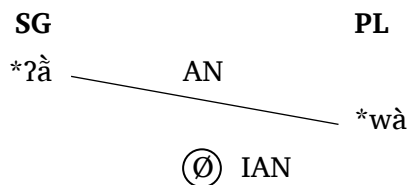


Figure 3: The possible animacy-based pronominal gender system of Proto-Gbayaic

2. Narrow Ndogoic + Raga

- + Narrow Ndogoic not yet surveyed (but see Santandrea (1961: 30-1, 52-4, 71, 108) on “neuter pronoun”), three units subsumed under Raga to be viewed independently
- + Feroge-Mangaya (Santandrea 1969: 106-8): 3rd-person pronouns for humans + animals, opposed to various reference devices for inanimate nouns, partly depending on morphosyntactic context: normally ∅; “neuter~inanimate” pronoun *a* or demonstrative; occasional use of animate pronoun in Mangaya
- > personal pronouns are in fact pronouns referring to animate entities
- + Togoyo (Santandrea 1969: 110): demonstrative as “neuter”~inanimate pronoun

- + Indri (Santandrea 1969: 108-9): 3rd-person pronouns distinguish animacy and for animates also number, a “neuter” pronoun predominantly but not universally for inanimates; also plural prefix *cu-* only for animate nouns (Santandrea 1969: 76)

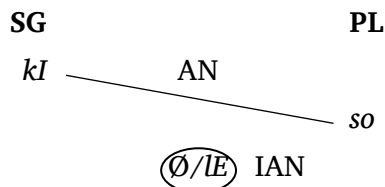


Figure 4: The animacy-based pronominal gender system of Indri (Huber 2017: 34)

3. Mundu-Baka

- + Winkhart (2015) without any hint toward a gender distinction in pronouns or in any other way but situation in fact similar to Gbayaic, Raga etc.:
- asymmetric grammatical behavior of animate nouns: basic 3rd-person pronouns for animates (humans, animals, personified objects etc.) as opposed to absence of overt reference to inanimates or reference by means of deictic elements, a generic noun or repetition of identical noun
- > Monzombo (see also §2.3 on Mundu, Mayogo, Baka)
- plural enclitic *-ō* less restricted with animate nouns (Boyi 1983: 245)
- explicit animacy-based gender by means of distinct pronouns

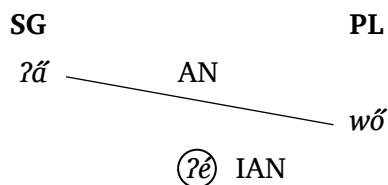


Figure 5: The animacy-based pronominal gender system of Monzombo (Boyi 1983)

4. Bandaic

- + various types of asymmetric noun behavior including 3rd-person pronoun bias for animates
- > Mono (Kamanda Kola 2003: 269-79, 443-7)
- a) plural marking (by prefix *à-/àlà-*) restricted to animate nouns or their quality attributes (Kamanda Kola 2003: 180, 247-259, 281-2, 288-9)
- b) constructions with genitive linkers interact with animacy features of both nouns (Kamanda Kola 2003: 324-46)
- c) ‘many’ = *àgà* for inanimate vs. *úkpú/ìl̄* for animate nouns (Kamanda Kola 2003: 318)

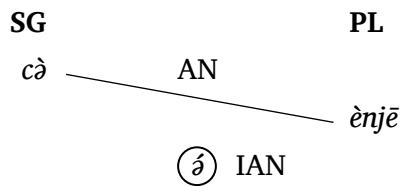


Figure 6: The animacy-based pronominal gender system of Mono (Kamanda K. 2003)

+ largely parallel situation in all better described Bandaic languages - see Tingbo-nyi-Zonga (1978: 68-9, 82-8, 94-6, 98-102) for Mbandja, Cloarec-Heiss (1986: 45, 58, 71, 81, 95, 100-1, 104, 203-6, 218) for Bambari-Linda, Sampson (1997) for Ndele-Tangbago

5. Ngbandic

+ 3rd-person pronouns refer largely to animate entities, while \emptyset (or other proforms like demonstratives) for inanimates, e.g., Northern Ngbandi (Toronzoni 1998: 271-92)

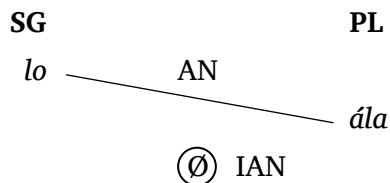


Figure 7: The animacy-based pronominal gender system of Ngbandi (Toronzoni 1989)

+ various types of asymmetric noun behavior:

- a) plural “word”~prefix *á* restricted to or at least strongly biased toward animate nouns (cf. Toronzoni (1989: 208-14) on Ngbandi, Samarin (1963: 127, 132-4) on Sango)
- b) genitive linker *tí* for inanimate vs. *té* for animate possessors (Toronzoni 1989: 313-6)
- c) Wh-elements and construction divided according to animacy (Toronzoni 1989: 493-4)

(6)a. *zē hándà náko*
 leopard outwit turtle
 Le léopard a trompé la tortue.

b. *zo hándà náko nà?*
 person outwit turtle AN.INTERR
 Qui a trompé la tortue? (Toronzoni 1989: 493-4)

(7)a. *nzéngó ho lóngó* (proverb)
 fatigue kill snake
 La fatigue a tué la vipère.

b. *yé ho lóngó nε?*
 thing kill snake IAN.INTERR
 Qu'est-ce qui a tué la vipère? (Toronzoni 1989: 494)

Gender-number	Pronoun	Interrogative
AN	<i>lo/ála</i>	<i>zo ... nà</i>
IAN	∅	<i>yé ... nε</i>

Table 4: Pronoun system of Northern Ngbandi (after Toronzoni 1989)

6. Zandic

- + less common systems with semantic sex-based elaboration within animate macrogender
- + good description of Zande, inconclusive analysis of other languages
- > more extensive treatment of semantics of animate gender: Gore (1931), Claudi (1985)

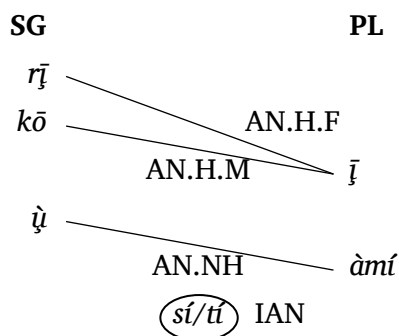


Figure 8: The pronominal gender system of Zande (after Boyd n.d.)

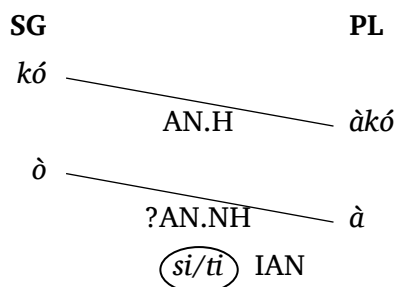


Figure 9: The pronominal gender system of Nzakara (after Tucker 1959)

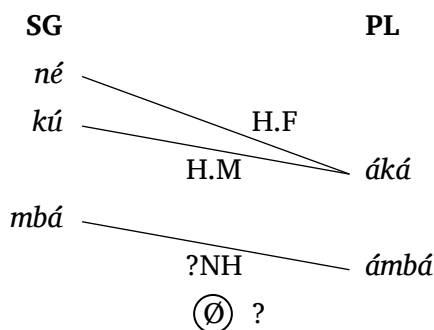


Figure 10: The pronominal gender system of Barambu-Pambia (after Tucker 1959)

- + asymmetric noun behavior:
- plural prefix à- with bias toward animate nouns in Nzakara (Tucker 1959: 119, 140-1)
- inanimate zero pronominalization with prepositions across Zandic (Santandrea 1965: 64-6)

7. Mbaic

- + unique among Non-Bantu Niger-Congo of the area (cf. Pasch 1986, Corbett 1991: 184-8):
 - a) all languages with Niger-Congo type system, not obviously cognate nor Bantu interference
 - b) 3 of 4 languages with additional normally animacy-based pronominal gender system
 - untypical for Niger-Congo but typical for the area
- > each language with its own complex configuration of nominal classification, original situation assumed to be still represented by Mba

Language	Ndunga	Mba ?and Proto-Mbaic	Dongo	Ma
Niger-Congo type inflection	Yes	Yes	Yes	Yes
Niger-Congo type gender	± human	± human	± animate	-
Pronominal gender	± human	± animate	± animate	± animate

Note: frame = canonical Niger-Congo, shading = typical for the area but untypical Niger-C.

Table 5: Summary of gender-based noun classification in Mbaic

- + Mba: 2 systems - semantic-formal human-based of Niger-Congo type vs. pronominal with animacy- **and sex-based** semantics similar to Zandic (Fiedler, G. and W. 2021)
- > results in so-called “concurrent noun classification” (Fedden and Corbett 2017)
- > pronominal system encroaches on agreement contexts of Niger-Congo type system

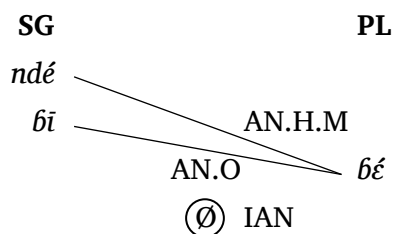
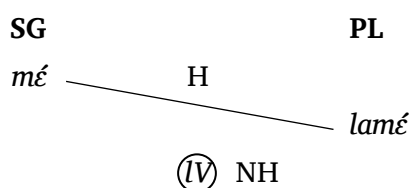


Figure 11: The pronominal gender system of Mba (Fiedler, G. and W. 2021)

- + Ndunga: **human-based pronominal** gender system in line with human-based Niger-Congo type system, but most strongly exposed to contact with Bantu languages with particularly notable effects on the nominal system (cf. Pasch 1987, 1988)
- > likely contact interference: Mbaic-type ± animate to Bantu-type ± human gender system



Note: non-human nouns are further sub-classified within the inherited “noun class” system

Figure 12: The pronominal gender system of Ndunga (after De Boeck 1956)

- + Dongo: single gender system by aligning Niger-Congo type system with animacy-based pronoun system; *wé/yé* = demonstratives of major inanimate gender 1/2
- Niger-Congo type system based on elaborate agreement beyond pronouns but semantically parallels pronoun system: *zé/zu* corresponds to 1a/2a but *wé/yé* to all other genders

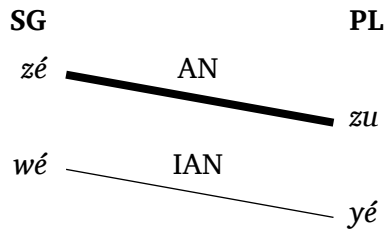


Figure 13: The pronominal gender system of Dongo (after Pasch 1986)

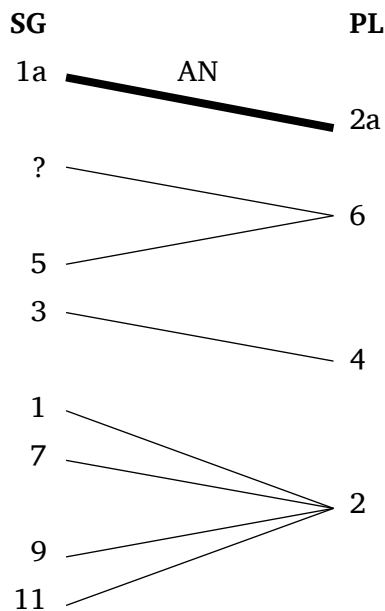


Figure 14: Formal gender system of Dongo with 10+ agreement classes

- + Ma: loss of Niger-Congo type agreement system under retention of nominal inflection and animacy-based pronoun system with additional sex-based human animate distinction
- > highly similar to Zandic - ?contact-induced, accompanied by binary \pm animate agreement

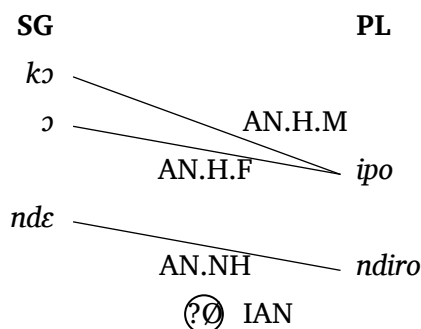


Figure 15: The pronominal gender system of Ma (after Pasch 1986)

2.2.3 Central Sudanic

1. Mainstream

- + no signs of animacy-based gender and little asymmetric noun behavior in Lenduic (Deleu 1934, Tucker 1940, Kutsch-Lojenga 1994) and Mangbetu-Asua (Larochette 1958)
- + no signs of gender but some asymmetric noun behavior in Moru-Madi (e.g., in Ma'di, Blackings and Fabb 2003: 363, 378, 399) and Mangbutu-Efe (Vorbichler 1968: 414)
- > Lese: genitive construction depends on possessor (in)animacy, goal postposition *-ni* with inanimates vs. *-bo* for animates (Vorbichler 1965: 90-1; 1968: 410-footnote 2, 414)

(8)a. *mɛsà-ni*

table-IAN.DIR

to/away from the table

b. *àfɔ̄-ba-ni*

father-at-IAN.DIR

to/away from father

c. *àfa-bo*

father-AN.DIR

to my father

d. *ura-bo*

animal-AN.DIR

to the animal (Vorbichler 1965: 90-1)

2. Kresh, Aja, Birri

- + Kresh: “neuter” pronoun behavior amounts to inanimate reference (Santandrea 1976: 98)

The following may be taken as general rules about the matter, with a great allowance for exceptions. “Our” neuter pronoun is normally left out in these languages, both as a subject and as an object. If stress is laid on it, a suitable demonstrative may replace it. When speaking of a particular object, the word “thing” is frequently heard, usually followed by a demonstrative. For the plural, the pers.[onal] pron-[oun] is employed when clarity of speech is required. This is always done when speaking of animals, unless there are other terms which replace it: e.g. a demonstrative.

- + Aja: apparently similar situation as in Kresh (Santandrea 1976: 244-text 5, footnote 4)
- + Birri: no sign of animacy-based noun distinction (Santandrea 1966: 203)

3. Bagiro (Bongo-Bagirmi)

- + Bongo-Bagirmi without signs of animacy-based gender and noun behavior except:
- > Bagiro~Furu spoken on the Ubangi River in the vicinity of Ubangi and Bantu languages
- + animacy-based singular pronoun distinction at least in possessives: mid-tone suffix for animate vs. *ná* for inanimate possessor (*ná* also grammaticalized as DEF ?!from DEM, which complicates the picture) (Boyeldieu 2000: 74-5, 86-92, 98, 118-20)

(9)a. *tâlā* < [tâlā-]

mouth:3SG.AN.POSSR

sa bouche [his/her mouth]

b. *tâlā ná*

mouth 3SG.IAN.POSSR~DEF

le/la/son bord, ouverture, tranchant [the/its edge]

c. *tâlā ná*

mouth:3SG.AN.POSSR DEF

sa bouche en question [his/her mouth (already referred to)] (Boyeldieu 2000: 91)

- + asymmetric noun behavior:

- a) no pronominal resumption of inanimate noun as verbal object in relative clause (Boyeldieu 2000: 111-3) and clause chaining subject (Boyeldieu 2000: 151, 211)
- b) demonstratives partly select noun according to animacy (Boyeldieu 2000: 121)

2.2.4 Central African forager languages

- + three principal types of languages regarding noun classification

(I) no or few signs of any gender and asymmetric noun behavior in Central Sudanic:

Efe (Mangbutu-Efe) (Smith 1938), Asua (Mangbetu-Asu) (Beltrame 1876-7)

(II) Bantu-typical gender systems - mostly outside the geographical area focused on here:

- a) without animate agreement and asymmetric noun behavior:

Bongwe (B303) (Walker 1937), Yaka (C104) (Thomas and Bahuchet 1991), Nkundo

Twa (C61) (Hulstaert 1948), Foto (C611) (Hulstaert 1978), Jofe (C) (Hulstaert 1986)

- b) non-human animates can agree in gender 1/2:

Gyeli (A801) (Grimm 2015: 128): with recurrent inflection change

Konda Twa (C61E) (Motingea M. 1994: 358-9): without inflection change

2.3.1 Language type I: Noun classification by grammatical asymmetry

- + central role of animacy in grammatical domains other than narrow gender in line with “animacy” ~ nominal hierarchy: **Human** > **Animate** > **Inanimate** > **Abstract**
- > two cross-linguistically recurrent choices where the most basic distinction (including in a gender system) is made ~ macrogender in terms of Nichols (1992):
 - (I) **Human** vs. non-human (subsuming all nouns to the right of Human)
 - (II) **Animate** (subsuming human + animal + other language-specific nouns) vs. inanimate
- > differential treatment of nouns in connection with their semantic features attested in a wide range of nominal constructions cross-linguistically (cf. also Corbett 1991: 31-2):
 - a) number marking (Smith-Stark 1974)
 - b) flagging including adpositional constructions (Malchukov 2008)
 - c) possessor-centered split in attributive possession (cf., e.g., Güldemann 1999)
 - d) distinction in interrogative pronouns ‘who’ vs. ‘what’ (Idiatov 2007)
 - e) reference tracking by means of overt pronouns and zero pronominalization
- > Fraurud (1996: 67) “pronominalization propensity” of hierarchically high referents:

Another example of differences between human and non-human [as well as animate and inanimate] referents with regard to NP form is seen in data on what may be called ‘pronominalization propensity’, showing that human referents are more often referred to by pronouns than non-human referents. [...] In general, it can be concluded that the animacy of the referent, and in particular whether or not it is human, is a factor that affects several phenomena at the discourse level as well as at the grammatical level. This is quite natural in the perspective of an anthropocentric cognitive ontology, which is structured around ourselves and our fellow human beings, and where everything else is described from the point of view of human beings.

- + methodological challenge: all systems with inanimate zero anaphor are hard to detect due to descriptions that are not alert to the possibility of a strong trend to or even a categorical distinction in pronominalization strategies

1. Mundu (East Mundu-Baka)

- + no reference to differential treatment of nouns in Vallaeys (1991), however:
 - 3SG pronouns *ngu/ah* for animate referents in extensive natural data of Jeffreys (1984)
 - inanimate reference by \emptyset , DEM, noun *ʔ* ‘thing’ rather than ordinary pronouns reported explicitly by Santandrea (1969)

- (11)a. *ma mɛ̀rɛ̀ ∅ mɛ̀-rá*
 1SG make self-1SG
- b. *ma mɛ̀rɛ̀ 'ɛ me-ra*
 1SG make thing self-1SG
- c. *ma mɛ̀rɛ̀ = nɛ me-ra*
 1SG make = DEM self-1SG
- I did/made it myself. (Santandrea 1969: 111)

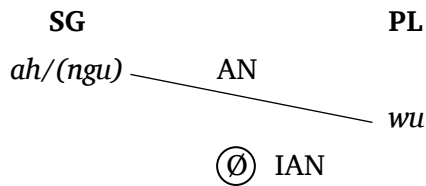


Figure 17: The apparent pronoun use in Mundu

2. Mayogo (East Mundu-Baka)

+ no reference to noun classification in Sawka (2001), however:

- simple pronoun system with two 3rd-person forms conveying a number distinction, in all examples with animate reference
- term “(in)animate” used in connection with locative expressions with pronominal possessors - Sawka (2001: 89):

locative prepositions can undergo reduplication of the first syllable to form locative nouns. [...] Reduplicated locative nouns are only used to replace inanimate beings as shown in (153) [= (11)b.] but not for animate beings as shown in (154) [= (11)a.].

- (11)a. *sa ani*
 under 3[AN.]SG
 under him[/her = animate] (Sawka 2001: 89)
- b. *sa ndula > sa-sa* [**sa ani, *sa-∅*]
 under tree REDUP-under
 under the tree under it

- > (11)b. reflects in fact zero pronominalization with inanimate referents in conjunction with a phenomenon of a certain class of nouns: *sa-∅* for ‘under it (= tree)’ in (11)b. ungrammatical - only alternative in context is reduplication (cf. Sawka 2001: 51-4)

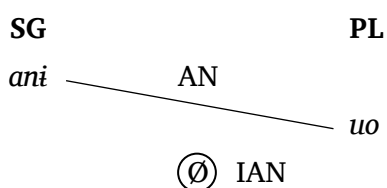


Figure 18: The apparent pronoun use in Mayogo



Figure 20: From a partly covert to an overt animacy-based pronoun system

- + attested examples for inanimate pronoun sources in Central Africa:
 - generic noun ‘thing’: Zandic, Bandaic (Claudi 1985: 127-31); Monzombo (Winkhart p.c.)
 - demonstrative: Dongo (Pasch 1986); Zande, Nzakara (Boyd p.c.)
 - other determiner: Eastern Gbayaic *ma* ‘certain (one)’ (Moñino 2010: 2)

2.3.4 Animacy-based vs. human-based macrogender distinction

- + some cases in Central Africa are systemically identical with animacy-based types I-III but have \pm human macrogender: Ndunga, possibly Barambu-Pambia
- binary system overall unstable semantically
- > possibly secondary shift, e.g., Ndunga under Bantu influence

- + available information in sources potentially misleading regarding the potentially subtle semantic difference of \pm animate vs. \pm human
- Gbaya (Ngbandic) reported by Boyd (1988: 44) to have overt pronouns restricted for **human** referents as opposed to alternative means for non-human nouns but in p.c. does not exclude a \pm animacy distinction

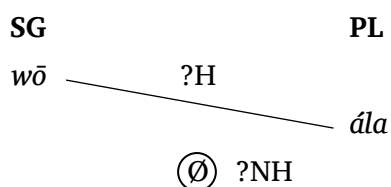


Figure 21: The pronoun system of Gbaya (after Boyd 1988: 44)

2.3.5 (Sex) gender elaboration within the higher macrogender

- + elaboration of marked animate gender by further sex-based distinction with human nouns
- Dahl (2000a: 102) regarding the relation of animacy- and sex-based gender systems:
 - (3) All animates above the cutoff point [on the nominal hierarchy] may either be assigned to the same gender or there may be further divisions.
 - (4) If the principle referred to in (1) [see §1 above] distributes animate nouns among different genders, sex is the major criterion.
- > accounts for Central African cases in Zande, Barambu-Pambia (Zandic); Ma, Mba (Mbaic)

2.3.6 Gender (not) conflated with number

- + number-insensitive pronouns recurrent, in line with bias induced by nominal hierarchy
- > overt plural form regular for hierarchically high nouns (Smith-Stark 1974):
 - a. through plural suppletive form - recurrent, unremarkable option
 - b. through plural morphology > gender marker originally number-insensitive!

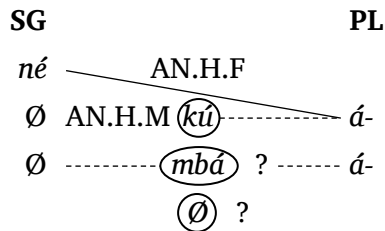


Figure 10a: The pronoun system of Barambu-Pambia (after Tucker 1959)

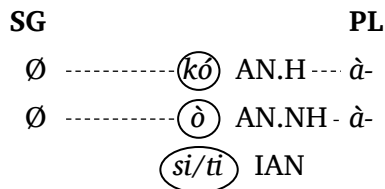


Figure 9a: The pronoun system of Nzakara (after Tucker 1959)

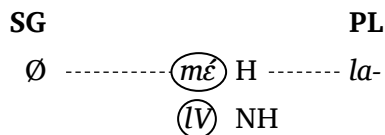


Figure 12a: The pronoun system of Ndunga (after De Boeck 1956)

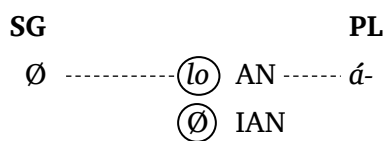


Figure 7a: The pronoun system of Ngbandi (after Toronzoni 1989)

> Ndunga and Ngbandi with just one gender and one number marker, each opposed to zero

3 Discussion

3.1 The areal pattern in Central Africa and its historical source

Language (group) Feature	<i>Proto-Bantu</i>	Local Bantu	Core Ubangi	Gbayaic	Central Sudanic	Modern forager	<i>Pre-shift forager</i>
Grammatical asymmetry	NO	(YES)	YES	YES	(YES)	(YES)	?
Gender	NO	(YES)	YES	YES	(YES)	(YES)	?

Table 6: Animacy-based noun classification in language groups of Central Africa

- + northern rainforest-savannah transition in Central Africa as a compact geographical area with a clear bias toward animacy-based noun classification of different kinds
- attested in all language families present in the area at issue but not in members languages of Bantu and Central Sudanic, when outside the area
- gaps in the area by languages of the same two families assumed to be the latest arrivals: Bantu from the south(west), Central Sudanic from the north(east)
- language contact likely involved in binary noun classification: Bagiro (Bongo-Bagirmi); numerous Bantu languages of different subgroups (involves macrogender shift from human- to animacy-based system); *Ndunga* (Mbaic)
- > **animacy-based classification is an areal trait** - “differential diffusability of nominal classification” (Seifart 2018: 28): more likely with semantically transparent system
- + animacy-based noun classification with different entrenchment across language groups: NO: innovative in Bantu, not entrenched deeply in Central Sudanic and **modern foragers**
 - > does not exclude but also does not support Vorbichler’s substrate hypothesis
- YES: widespread in UBANGI including Gbayaic with possible proto-stage reconstructions
 - > **likely source of the areal trait**, suggests early presence in the relevant area!

3.2 Animacy-based noun classification in the Macro-Sudan Belt

- + Central Africa is part of Macro-Sudan Belt, areal trait does not transgress its borders
- > another, at least sub-areal, MSB feature - question of status in the west
- + gender systems with basic macrogender distinction also in the western Macro-Sudan Belt:
 - a) Ijoid as a (?genealogically independent) case with pronominal animacy-based system
 - b) secondary animacy-based gender system also in some Niger-Congo languages, going hand in hand with a reduction of a multiple-gender to a binary gender system:
 - Potou-Tano, Ghana-Togo-Mountain (see Güldemann and Fiedler 2019, submitted)
 - some languages of the Gur family further north: Moba, Dagbani (+ restructured bipartite systems retaining the \pm human distinction: Koromfe, Pana, Samoma, Konni)
 - c) Kru as a (?genealogically independent) case with pronominal human-based gender system

+ distribution of animacy-based gender in West Africa still unclear but certainly more dispersed than in the eastern half of the Macro-Sudan Belt

> however, more abstract parallel between these two portions of the macro-area:

Central Africa: ± animate system well entrenched

human-based gender system of Niger-Congo (represented by Bantu)
encroached from the south (unique case of Mbaic aside)

> change toward locally entrenched ± animate pattern according to **south-north cline**

West Africa: arguable remnants of older ± animate pattern in the south: Ijoid

human-based gender system of Niger-Congo encroached from the north

> restructuring and eventual shift to ± animate system according to **north-south cline**

The reversed areal pattern in the eastern and western half of the Macro-Sudan Belt could be explained in a unified way if one assumes that animacy-based noun classification was a trait more deeply entrenched in equatorial rainforest regions.

Niger-Congo languages encroached from the neighboring savannahs, either replacing the earlier gender pattern or restructuring toward it, which happened early on in West Africa from the north and later in Central Africa from the south(west).

References

- Azeb Amha. 2006. Gender and animacy in Maale in comparative perspective. In Uhlig, Siegbert (ed.), *Proceedings of the 15th International Conference of Ethiopian Studies*, Hamburg, July 20-25, 2003. *Aethiopistische Forschungen* 65. Wiesbaden: Otto Harrassowitz, 704-714.
- Beltrame, Giovanni. 1876-7. Saggio di grammatica della lingua degli Akkà, vocabolario Italiano-Akkà. *Bollettino della Società Geografica Italiana* 13: 622-629, 14: 13-41, 128-136.
- Black-Rogers, Mary B. 1982. Algonquian gender revisited: animate nouns and Ojibwa 'power' - an impasse? *Papers in Linguistics (Carbondale, Illinois)* 15,1: 59-76.
- Bostoen, Koen A. G. and Jean-Pierre Donzo. 2013. Bantu-Ubangi language contact and the origin of labial-velar stops in Lingombe (Bantu, C41, DRC). *Diachronica* 30,4: 435-468.
- Boyd, Raymond. n.d. Les pronominaux et démonstratifs du zande. unpublished ms. <https://www.rblanguesdafrique.info/pronoms.pdf>
- Boyd, Raymond and Pierre Nougayrol. 1988. Le geme ou jèmé, une nouvelle langue du groupe zande. In Moñino, Yves (ed.), *Lexique comparatif des langues oubanguiennes*. Paris: Paul Geuthner, 67-85.
- Boyd, Virginia L. 1997. A phonology and grammar of Mbódómó. M.A. thesis: University of Texas at Arlington.
- Boyeldieu, Pascal. 2000. La langue bagiro (République Centrafricaine). *Schriften zur Afrikanistik Band 4*. Frankfurt am Main et al.: Peter Lang.
- Boyeldieu, Pascal and France Cloarec-Heiss. 1989. Les déterminations "directe" et "indirecte" du nom dans des langues d'Afrique centrale. *Linguistique Africaine* 2: 5-20.
- Bouquiaux, Luc and Jacqueline M. C. Thomas. 1994. Quelques problèmes comparatifs de langues bantoues C10 des confins oubanguiens: le cas du mbati, du ngando et de l'aka. In Geider, Thomas and Raimund Kastenholz (eds.), *Sprachen und Sprachzeugnisse in Afrika: Eine Sammlung philologischer Beiträge, Wilhelm J. G. Möhlig zum 60. Geburtstag zugeeignet*. Köln: Rüdiger Köppe, 87-106.
- Bybee, Joan L. 1990. The grammaticalization of zero: asymmetries in tense and aspect systems. *La Trobe University Working Papers in Linguistics* 3: 1-14.
- Claudi, Ulrike. 1985. Zur Entstehung von Genussystemen: Überlegungen zu einigen theoretischen Aspekten, verbunden mit einer Fallstudie des Zande. Hamburg: Helmut Buske Verlag.
- Cloarec-Heiss, France. 1986. Dynamique et équilibre d'une syntaxe: le banda-linda de Centrafrique. *Descriptions de Langues et Monographies Ethnolinguistiques* 2. Paris: SELAF.
- Corbett, Greville G. 1991. *Gender*. Cambridge: Cambridge University Press.
- Corbett, Greville G. 2013a. Sex-based and non-sex-based gender systems. In Dryer and Haspelmath (eds.) (Available online at <http://wals.info/chapter/31>, Accessed on 2021-09-02.)
- Corbett, Greville G. 2013b. Systems of gender assignment. In Dryer and Haspelmath (eds.) (Available online at <http://wals.info/chapter/32>, Accessed on 2021-09-08.)
- Corbett, Greville G. 2014. Gender typology. In Corbett, Greville G. (ed.), *The expression of gender. The Expression of Cognitive Categories* 6. Berlin: De Gruyter, 87-130.

- Crane, Thera M., Larry M. Hyman, and Simon N. Tukumu. 2011. A grammar of Nzadi [B.865]: a Bantu language of the Democratic Republic of Congo. University of California Publications in Linguistics 147. Berkeley/ Los Angeles: University of California Press.
- Croft, William. 1994. Semantic universals in classifier systems. *Word* 45,2: 145-171.
- Dahl, Östen. 2000a. Animacy and the notion of semantic gender. In Unterbeck and Rissanen (eds.), 99-115.
- Dahl, Östen. 2000b. Elementary gender distinctions. In Unterbeck and Rissanen (eds.), 577-593.
- Dahl, Östen and Kari Fraurud. 1996. Animacy in grammar and discourse. In Fretheim and Gundel (eds.), 47-64.
- Demolin, Didier. 2008. Comparative perspectives in the study of languages from the north-east of Congo. Paper presented at the Laboratoire Dynamique du Langage (DDL) Lyon, May 2008.
- Di Garbo, Francesca and Annemarie Verkerk. 2021. A typology of northwestern Bantu gender systems. *Linguistics*.
- Dickens, Patrick J. 1994. English-Ju|'hoan/Ju|'hoan-English dictionary. *Quellen zur Khoisan-Forschung* 8. Köln: Rüdiger Köppe.
- Dickens, Patrick J. 2005. A concise grammar of Ju|'hoan with a Ju|'hoan-English glossary and a subject index. *Quellen zur Khoisan-Forschung* 17. Köln: Rüdiger Köppe.
- Dimmendaal, Gerrit J. 2011. Historical linguistics and the comparative study of African languages. Amsterdam: John Benjamins.
- Djoupee, Bertille. 2017. Description du baka, une langue oubanguienne du Cameroun. Ph.D. thesis: Institut National des Langues et Civilisations Orientales Paris.
- Dryer, Matthew S. and Martin Haspelmath (eds.), 2013. The world atlas of language structures online. Leipzig: Max Planck Institute for Evolutionary Anthropology. (Available online at <http://wals.info>)
- Efeḃo, Awotḃa L. 1967. Nembe language made easy. *Occasional Publications* 6. Ibadan: Institute of African Studies, University of Ibadan.
- Fiedler, Ines. 2012. Predicate-centered focus in Gbe. In Brenzinger, Matthias and Anne-Maria Fehn (eds.), *Proceedings of the 6th World Congress of African Linguistics, Cologne, 17-21 August 2009*. Köln: Rüdiger Köppe, 385-397.
- Fiedler, Ines, Tom Güldemann and Benedikt Winkhart. 2021. The two concurrent gender systems of Mba. In Güldemann and Fiedler (eds.), 303-325.
- Fodor, István. 1959. The origin of grammatical gender. *Lingua* 8,1: 1-41; 8,2: 186-214.
- Foulou-Bazouma, Emmanuel. 2006. Le système nominal du nzakara. M.A. thesis: Université de Bangui.
- Fedden, Sebastian and Greville G. Corbett. 2017. Gender and classifiers in concurrent systems: refining the typology of nominal classification. *Glossa: a journal of general linguistics* 2,1: 34.
- Frajzyngier, Zygmunt. 2012. Typological outline of the Afroasiatic phylum. In Frajzyngier, Zygmunt and Erin Shay (eds.), *The Afroasiatic languages*. Cambridge: Cambridge University Press, 505-624.
- Fraurud, Kari. 1996. Cognitive ontology and NP form. In Fretheim and Gundel (eds.), 65-87.

- Fretheim, Thorstein and Jeanette K. Gundel (eds.). 1996. Reference and referent accessibility. *Pragmatics and Beyond, New Series 38*. Amsterdam: John Benjamins.
- Givón, Talmy. 2017. *The story of zero*. Amsterdam: John Benjamins.
- Goddard, Ives. 2002. Grammatical gender in Algonquian. Wolfart, H. C. (ed.), *Papers of the 33rd Algonquian Conference*. Winnipeg: University of Manitoba, 195-231.
- Gore, Edward C. 1931. *A Zande grammar*. London: Sheldon Press.
- Greenberg, Joseph H. 1960. An Afro-Asiatic pattern of gender and number agreement. *Journal of the American Oriental Society* 80,4: 317-321.
- Greenberg, Joseph H. 1963. *The languages of Africa*. Publications 25. Bloomington: Research Center in Anthropology, Folklore, and Linguistics, Indiana University Press.
- Greenberg, Joseph H. 1972. Linguistic evidence regarding Bantu origins. *Journal of African History* 13,2: 189-216.
- Greenberg, Joseph H. 1978. How does a language acquire gender markers? In Greenberg, Joseph H., Charles A. Ferguson and Edith A. Moravcsik (eds.), *Universals of human language*, vol. 3: word structure. Stanford, California: Stanford University Press, 47-82.
- Grimm, Nadine. 2015. *A grammar of Gyeli*. Ph.D. thesis: Institute for Asian and African Studies, Humboldt University Berlin.
- Güldemann, Tom. 1999. Toward a grammaticalization and typological account of the ka-possessive in Zulu. *Journal of African Languages and Linguistics* 20,2: 157-184.
- Güldemann, Tom. 2000. Noun categorization in Non-Khoe lineages of Khoisan. *Afrikanistische Arbeitspapiere* 63: 5-33.
- Güldemann, Tom. 2004. Reconstruction through 'de-construction': the marking of person, gender, and number in the Khoe family and Kwadi. *Diachronica* 21,2: 251-306.
- Güldemann, Tom. 2008. The Macro-Sudan belt: towards identifying a linguistic area in northern sub-Saharan Africa. In Heine, Bernd and Derek Nurse (eds.), *A linguistic geography of Africa*. Cambridge: Cambridge University Press, 151-185.
- Güldemann, Tom. 2018a. Areal linguistics beyond contact, and linguistic areas of Afrabia. In Güldemann (ed.), 448-545.
- Güldemann, Tom. 2018b. Historical linguistics and genealogical language classification in Africa. In Güldemann (ed.), 58-444.
- Güldemann, Tom. forthcoming. The historical-comparative status of East Sudanic. In Blench, Roger, Petra Weschenfelder and Georg Ziegelmeyer (eds.), *Proceedings of the 14th Nilo-Saharan Linguistics Colloquium at the Department of African Studies, University of Vienna, 30 May-1 June 2019*. Nilo-Saharan Linguistic Analyses and Documentation. Köln: Rüdiger Köppe.
- Güldemann, Tom (ed.). 2018. *The languages and linguistics of Africa*. *The World of Linguistics* 11. Berlin: Mouton de Gruyter.
- Güldemann, Tom and Ines Fiedler. 2019. Niger-Congo "noun classes" conflate gender with deriflection. In Di Garbo, Francesca, Bruno Olsson and Bernhard Wälchli (eds.), *Grammatical gender and linguistic complexity, volume I: general issues and specific studies*. Berlin: Language Science Press, 95-145.

- Güldemann, Tom and Ines Fiedler. 2021. More diversity enGENDERed by African languages: an introduction. In Güldemann and Fiedler (eds.), 221-240.
- Güldemann, Tom and Ines Fiedler. submitted. Restructured Niger-Congo gender systems as a new type of concurrent nominal classification.
- Güldemann, Tom and Ines Fiedler (eds.). 2021. More diversity enGENDERed by African languages. Sprachtypologie und Universalienforschung, special issue 74,2.
- Güldemann, Tom and Jan Junglas. in preparation. Krongo's nominal system and its complex and simple lessons on gender and number.
- Güldemann, Tom and Jack Merrill. in preparation. Proto-Niger-Congo as a late classifier language - or why Africa is full of noun classes but almost void of classifiers?
- Güldemann, Tom and Benedikt Winkhart. forthcoming. The *Baakaa and other puzzles: foraging and farming peoples in the western Central African Rainforest. Anthropological Linguistics.
- Güldemann, Tom, Francesca Di Garbo and Annemarie Verkerk. 2021. Contact-induced change in gender systems of northern Bantu languages. Paper presented at the 10th World Congress of African Linguistics, Leiden, 7-11 June 2021.
- Harries, Lyndon P. 1958. Kumu, a Sub-Bantu language. Kongo-Overzee 24: 265-296.
- Harvey, Mark. 1997. Nominal classification and gender in Aboriginal Australia. In Harvey and Reid (eds.), 17-62.
- Harvey, Mark and Nicholas Reid (eds.). 1997. Nominal classification in Aboriginal Australia. Studies in Language Companion Series 37. Amsterdam: John Benjamins.
- Heath, Jeffrey. 1978. Ngandi grammar, texts and dictionary. Canberra: Australian Institute of Aboriginal Studies.
- Heine, Bernd. 1982. African noun class systems. In Seiler, Hansjakob and Christian Lehmann (eds.), Apprehension: Das sprachliche Erfassen von Gegenständen, Teil I: Bereich und Ordnung der Phänomene. Language Universals Series 1. Tübingen: Gunter Narr, 189-216.
- Helmbrecht, Johannes, Lukas Denk, Sarah Thanner and Ilenia Tonetti. 2018. Morphosyntactic coding of proper names and its implications for the animacy hierarchy. In Cristofaro, Sonia and Fernando Zúñiga (eds.), Typological hierarchies in synchrony and diachrony. Amsterdam: John Benjamins, 377-401.
- Huber, Sarah. 2017. The Indri language as documented by Santandrea. M.A. thesis: Institut für Asien- und Afrikawissenschaften, Humboldt-Universität zu Berlin.
- Idiatov, Dmitry. 2007. A typology of non-selective interrogative pronominals. Ph.D. thesis: University of Antwerp.
- Jeffrey, Dorothea. 1984. Uses of quotations in Mündü narrative discourse. Occasional Papers in the Study of Sudanese Languages 3: 101-175.
- Jenewari, Charles E. W. 1977. Studies in Kalabari syntax. Ph.D. thesis: University of Ibadan.
- Jenewari, Charles E. W. 1983. Defaka, Ijo's closest linguistic relative. In Dihoff, Ivan R. (ed.), Current approaches to African linguistics 1. Publications in African Languages and Linguistics 1. Dordrecht/ Cinnaminson: Foris, 85-111.

- Jenewari, Charles E. W. 1989. Ijoid. In Bendor-Samuel, John (ed.), *The Niger-Congo languages*. Lanham: University Press of America, 105-118.
- Kießling, Roland. 2013. On the origin of Niger-Congo nominal classification. In Kikusawa, Ritsuko and Lawrence A. Reid (eds.), *Historical Linguistics 2011: selected papers from the 20th International Conference on Historical Linguistics, Osaka, 25-30 July 2011*. Amsterdam: John Benjamins, 43-65.
- Kießling, Roland. 2018. Niger-Congo numeral classifiers in a diachronic perspective. In McGregor and Wichmann (eds.), 33-76.
- Köhler, Oswin. 1962. Studien zum Genussystem und Verbalbau der zentralen Khoisan-Sprachen. *Anthropos* 57: 529-546.
- Krishnamurti, Bhadriraju. 2003. *The Dravidian languages*. Cambridge: Cambridge University Press.
- Krzywicki, Janusz. 1985. Contes didactiques bira (Haut-Zaïre). *Quaderni della rivista Africa* 12. Rome: Istituto Italo-Africano.
- Kutsch Lojenga, Constance. 2003. Bila (D32). In Nurse, Derek and Gérard Philippson (eds.), *The Bantu languages*. Routledge Language Family Series 4. London: Routledge, 450-474.
- Lekens, P. Benjamin. 1923. *Spraakkunst der Ngbanditaal*. Brugge: K. Beyart & C. Houdmont-Cortvriendt.
- Luraghi, Silvia. 2011. The origin of the Proto-Indo-European gender system: typological considerations. *Folia Linguistica* 45,2: 435-464.
- Maes, Védaste. 1959. Dictionnaire ngbaka-français-néerlandais précédé d'un aperçu grammatical. *Annalen Wetenschappen van de Mens, Linguistiek* 25. Tervuren: Koninklijk Museum van Belgisch-Congo.
- Maho, Jouni F. 1999. A comparative study of Bantu noun classes. *Orientalia et Africana Gothoburgensia* 13. Göteborg: Acta Universitatis Gothoburgensis.
- Maho, Jouni F. 2009. NUGL online: the online version of the New Updated Guthrie List, a referential classification of the Bantu languages. Gothenburg: Department of Oriental and African Languages, University of Gothenburg. https://brill.com/fileasset/downloads_products/35125_Bantu-New-updated-Guthrie-List.pdf
- Malchukov, Andrej L. 2008. Animacy and asymmetries in differential case marking. *Lingua* 118: 203-221.
- Marchese, Lynell. 1988. Noun classes and agreement systems in Kru: a historical approach. In Barlow, Michael and Charles A. Ferguson (eds.), *Agreement in natural language: approaches, theories, descriptions*. Stanford, California: Center for the Study of Language and Information (CSLI), 323-341.
- McGregor, William B. and Søren Wichmann (eds.). 2018. The diachrony of classification systems. *Current Issues in Linguistic Theory* 342. Amsterdam: John Benjamins.
- Meeussen, Achille E. 1967. Bantu grammatical reconstructions. In *Africana Linguistica* 3. *Annalen Wetenschappen van de Mens* 61. Tervuren: Koninklijk Museum voor Midden-Afrika, 79-121.
- Meinhof, Carl. 1912. *Die Sprachen der Hamiten*. *Abhandlungen des Hamburgischen Kolonialinstituts* 9. Hamburg: L. Friederichsen.

- Moñino, Yves. 1995. *Le Proto-gbaya: Essai de linguistique comparative sur vingt et une langues d'Afrique centrale*. Collection Langues et cultures africaines 20. Paris: Peeters.
- Moñino, Yves. 2010a. La structuration du système pronominal en proto-gbaya. In Pozdniakov, Konstantin, Valentin F. Vydrin and Alexander Zheltov (eds.), *Personal pronouns in Niger-Congo languages, international workshop, St. Petersburg, September 13-15, 2010*. St. Petersburg: Department of African Studies, St. Petersburg State University and Museum of Anthropology and Ethnography, Russian Academy of Sciences, 88-96.
- Moñino, Yves. 2010b. The position of Gbaya-Manza-Ngbaka group among the Niger-Congo languages. Paper presented at the International Workshop "Genealogical classification in Africa beyond Greenberg", Humboldt-Universität zu Berlin, 21-22 February 2010. <https://www.iaaw.hu-berlin.de/de/afrika/linguistik-und-sprachen/veranstaltungen/greenberg-workshop/the-position-of-gbaya-manza-ngbaka-group-among-the-niger-congo-languages>
- Motingea Mangulu, André. 1988. *Grammaire lingombe*. Etudes Aequatoria 3. Bamanya: Centre de Recherches Culturelles Africanistes.
- Motingea Mangulu, André. 1994. Notes sur le parler des pygmées d'Itendo (Zone de Kiri/Maindombe). *Annales Aequatoria* 15: 341-382.
- Motingea Mangulu, André. 2005. *Leboale et lebaate: langues bantoues du plateau des Uélé, Afrique centrale*. Language Monograph Series 3. Tokyo: Research Institute for Languages and Cultures of Asia and Africa, Tokyo University of Foreign Studies.
- Nichols, Johanna. 1992. *Linguistic diversity in space and time*. Chicago: University of Chicago Press.
- Osam, E. Kweku. 1996. Animacy distinctions in Akan grammar. *Studies in the Linguistic Sciences* 23,2: 153-164.
- Palayer, Pierre (avec la collaboration de Chaïbo Yaya). 2011. *Grammaire du dadjo d'Eref (Tchad)*. Afrique et Langage 13. Leuven/ Paris: Peeters.
- Pasch, Helma. 1986. *Die Mba-Sprachen*. Sprache und Geschichte in Afrika, Beiheft 6. Hamburg: Helmut Buske.
- Pasch, Helma. 1987. Die Entlehnung der Bantupräfixe li- und ma- in eine Nicht-Bantusprache. In Boretzky, Norbert, Werner Enninger and Thomas Stolz (eds.), *Akten des 3. Essener Kolloquiums über „Sprachwandel und seine bestimmenden Faktoren“*. Bochum-Essener Beiträge zur Sprachwandelforschung 4. Bochum: Studienverlag N. Brockmeyer, 227-242.
- Pasch, Helma. 1988. Die Entlehnung von Bantu-Präfixen in eine Nichtbantu-Sprache. *Zeitschrift für Phonetik, Sprachwissenschaft und Kommunikationsforschung* 41,1: 48-63.
- Pasch, Helma. 2012. From anaphoric pronoun to copula in Zande. In Brenzinger, Matthias and Anne-Maria Fehn (eds.), *Proceedings of the 6th World Congress of African Linguistics, Cologne, 17-21 August 2009*. Köln: Rüdiger Köppe, 489-500.
- Passer, Matthias B. 2016. *The typology and diachrony of nominal classification*. LOT Series 434. Amsterdam: University of Amsterdam and Landelijke Onderzoekschool Taalwetenschap (LOT).
- Pratchett, Lee J. 2021. An areal and typological appraisal of gender in Ju. In Güldemann and Fiedler (eds.), 279-302.
- Pugach, Sara. 2012. *Africa in translation: a history of colonial linguistics in Germany and beyond, 1814-1945*. Ann Arbor: Michigan University Press.

- Reid, Nicholas. 1997. Class and classifier in Ngan'gityemerri. In Harvey and Reid (eds.), 165-228.
- Ribero, Pietro. 1922. *Elementi di lingua ndogo*. S. Benigno: Scuola Tipografica D. Bosco.
- Samarin, William J. 1963. *A grammar of Sango*. Hartford, Connecticut: Hartford Seminary Foundation.
- Samarin, William J. 1966. *The Gbeya language: grammar, texts, and vocabularies*. University of California Publications in Linguistics 44. Berkeley: University of California Press.
- Sampson, Douglas L. 1997. The pronouns of Banda-Tangbago of Sudan. *Occasional Papers in the Study of Sudanese Languages* 7: 91-102.
- Sanders, Gerald. 1988. Zero derivation and the overt analogue criterion. In Hammond, Michael and Michael Noonan (eds.), *Theoretical morphology*. San Diego: Academic Press, 155-175.
- Santandrea, Stefano. 1950. *Indri-Togoyo-Ndogo-Feroge-Mangaya-Mondu: comparative linguistics*. Museum Combonianum 4. Verona: Istituto Missioni Africane.
- Santandrea, Stefano. 1961. *Comparative outline-grammar of Ndogo-Sere-Tagbu-Bai-Bviri*. Museum Combonianum 13. Bologna: Editrice Nigrizia.
- Santandrea, Stefano. 1969. Note grammaticali e lessicali sul gruppo Feroge e sul Mundu (Sudàn). *Serie Orientalistica* 5. Napoli: Istituto Universitario Orientale.
- Santandrea, Stefano. 1976. *The Kresh group, Aja and Baka languages (Sudan): a linguistic contribution*. Napoli: Istituto Universitario Orientale.
- Schebesta, Paul J. 1952. Das Problem der Pygmäensprache. *Wiener Beiträge zur Kulturgeschichte und Linguistik* 9: 426-451.
- Schwarz, Anne and Ines Fiedler. 2007. Narrative focus strategies in Gur and Kwa. In Aboh, Enoch O., Katharina Hartmann and Malte Zimmermann (eds.), *Focus strategies in African languages: the interaction of focus and grammar in Niger-Congo and Afro-Asiatic*. Trends in Linguistics, Studies and Monographs 191. Berlin: Mouton de Gruyter, 267-287.
- Seifart, Frank. 2005. The structure and use of shape-based noun classes in Miraña (North West Amazon). *MPI Series in Psycholinguistics* 32. Wageningen: Ponsen and Looijen.
- Seifart, Frank. 2018. The semantic reduction of the noun universe and the diachrony of nominal classification. In McGregor and Wichmann (eds.), 9-32.
- Smith-Stark, Thomas C. 1974. The plurality split. *Chicago Linguistic Society* 10: 657-671.
- Stilo, Don. 2018. Numeral classifier systems in the Araxes-Iran linguistic area. In McGregor and Wichmann (eds.), 135-164.
- Straus, Anne T. and Robert Brightman. 1982. The implacable raspberry. *Papers in Linguistics (Carbondale, Illinois)* 15: 97-137.
- Subramanyam, P. S. 1976. Review of Bh. Krishnamurti's 'Gender and number in Proto-Dravidian'. *International Journal of Dravidian Linguistics* 5: 138-143.
- Thomas, Jacqueline M. C. and Serge Bahuchet (eds.). 1991. *Encyclopédie des Pygmées aka: Techniques, langage et société des chasseurs-cueilleurs de la forêt centrafricaine (Sud-Centrafricaine et Nord-Congo)*; I,4: La langue. Bibliothèque de la SELAF 331. Leuven/ Paris: Peeters.

- Thomas, J. Paul. 1994. Bantu noun-class reflexes in Komo. In *Africana Linguistica XI. Annalen Menswetenschappen* 142. Tervuren: Koninklijk Museum voor Midden-Afrika, 177-195.
- Thomas, J. Paul. 2011. A morphophonology of Komo: non-tonal phenomena. SIL Electronic Working Papers 2011-006. SIL International.
- Tingbo-nyi-Zonga, Théobald. 1978. *Étude grammaticale de la langue mbandza (dialecte de báláwo)*. Lubumbashi: Centre de Linguistique Theorique et Appliquée, Université Nationale du Zaïre.
- Tucker, Archibald N. (avec la collaboration de P. E. Hackett). 1959. Le groupe linguistique zande. *Annalen Wetenschappen van de Mens, Linguistiek* 22. Tervuren: Koninklijk Museum van Belgisch-Congo.
- Tucker, Archibald N. 1967 [1940]. *The Eastern Sudanic languages*. London: Dawsons.
- Tucker, Archibald N. and Margaret A. Bryan. 1966. *Linguistic analyses: the Non-Bantu languages of north-eastern Africa, with a supplement on the Ethiopic languages by Wolf Leslau*. London: Oxford University Press.
- Unterbeck, Barbara and Matti Rissanen (eds.). 2000. *Gender in grammar and cognition. Trends in Linguistics, Studies and Monographs* 124. Berlin/ New York: Mouton de Gruyter.
- Verkerk, Annemarie and Francesca Di Garbo. 2021. Socio-geographic correlates of typological variation in northwestern Bantu gender systems. *Language Dynamics and Change*.
- Vorbichler, Anton. 1963. Zu dem Problem der Klasseneinteilung in Lebendiges und Lebloses in den Pygmäen- und Waldnegerdialekten des Ituri, Congo. In *Festschrift Paul J. Schebesta zum 75. Geburtstag. Studia Instituti Anthropos* 18. Wien-Mödling: St. Gabriel, 23-34.
- Vorbichler, Anton. 1968. Die Herkunft der Bira linguistisch gesehen. *Studia Instituti Anthropos* 21: 408-420.
- Wälchli, Bernhard and Francesca Di Garbo. 2019. The dynamics of gender complexity. In Di Garbo, Francesca, Bruno Olsson and Bernhard Wälchli (eds.), *Grammatical gender and linguistic complexity, volume II: world-wide comparative studies*. Berlin: Language Science Press, 201-364.
- Wald, Benji. 1975. Animate concord in Northeast Coastal Bantu: its linguistic and social implications as a case of grammatical convergence. *Studies in African Linguistics* 6: 261-314.
- Wau, Clement Mur'ba. 2002. *The structure of the noun phrase in Viri*. M.A. thesis: University of Khartoum.
- Westermann, Diedrich. 1935. Nominalklassen in westafrikanischen Klassensprachen und in Bantusprachen. *Mitteilungen des Seminars für Orientalische Sprachen zu Berlin, 3. Abteilung: Afrikanische Studien* 38: 1-53.
- Westermann, Diedrich. 1947. Pluralbildung und Nominalklassen in einigen afrikanischen Sprachen. *Abhandlungen der Deutschen Akademie der Wissenschaften zu Berlin 1945/6, Philosophisch-Historische Klasse* 1. Berlin: Berlin: Akademie-Verlag.
- Williamson, Kay. 1965. *A grammar of the Kolokuma dialect Ijo*. West African Language Monographs 2. Cambridge: Cambridge University Press.
- Winkhart, Benedikt. 2015. *The reconstruction of Mundu-Baka*. M.A. thesis: Institut für Asien- und Afrikawissenschaften, Humboldt-Universität zu Berlin.

Abstract

While investigating the linguistic diversity of the Ituri rainforest in Central Africa, Vorbichler (e.g., 1963) observed that several languages of this zone display grammatical traits reflecting a categorization of nominal referents according to a \pm animate distinction. However, only few languages of the area have been described explicitly to possess an overt animacy-based gender system. Based on a wider survey of Central African languages, I show that this is because they tend to implement noun categorization grammatically in a far more extensive sphere of language structure that concerns behavioral properties of nouns. These can but need not lead eventually to full-grown gender systems. The cross-linguistic picture of noun classification in the area I outline in this article is thus not only relevant for African linguistics but also informs the general question of how gender systems emerge and develop.