

# Articles in the world's languages

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# Overview of my dissertation

# Objectives

## background

- despite many studies of articles in single languages as well as comparative work on articles, we still lack a consistent definition of articles
- no systematic overview of other additional properties of articles

## objectives

- language-independent definition of articles
- overview of (un)attested article types
- crosslinguistic systematization of several properties of articles

## method

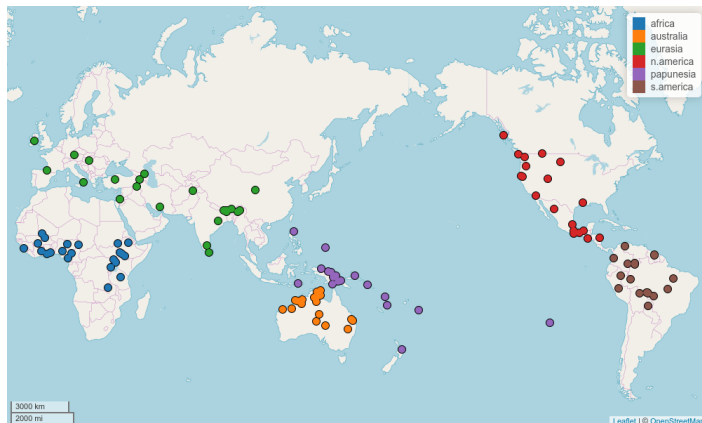
- grammar mining (sample with 99 languages and 131 articles)
- data collection using a questionnaire for different referential contexts  
Guatemala: Kaqchikel, Q'anjobal  
Cameroon: Mokpe  
(Leipzig: Limbum, Akan)

- there are 8 main types of articles in the world's languages
- a typology of article systems
  - how can the referential space be divided by articles?
  - the frequencies of the different types of article systems show the following trend: the referential space is divided into a definite and an indefinite domain
- morphosyntactic properties of articles
  - morphologically complex article paradigms (e.g. the definite article in Mokpe)
  - inflection
    - relatively independent of referential properties
    - restricted by the source element of the article
    - restricted by the morphological properties of the noun
- the distribution of articles
  - mainly determined by their referential functions
  - we always find “exceptions”; their distribution is often determined by their diachronic source
    - occurrence in plural contexts
    - definite articles with demonstratives and possessives

# Sample

- 116 languages from the 6 macro areas defined in WALS and Glottolog (Dryer and Haspelmath 2013; Hammarström et al. 2018)

- Africa (8 families)
- Eurasia (11 families)
- Papunesia (10 families)
- Australia (8 families)
- North America (15 families)
- South America (9 families)



- in total 154 articles
- in addition: primary data from Kacchikel, Q'anjobal, Akan, Limbum, Mokpe

## Defining articles

# Defining articles

(1) *Articles as a crosslinguistic category*

Articles are markers in the nominal domain whose main function is to encode the referential function of the noun that they occur with.

- **function**

Articles are markers of referentiality.

- **domain**

Articles occur together with nouns. (Their form does not matter!)

- **distribution**

Articles must occur systematically in contexts determined by their referential functions. They do not need to occur obligatorily: exceptions are allowed if they are can be described as rules or strong correlations.

# Tonal and segmental article exponents in Mokpe (Bantu)

CLASS	NOUN	ART + NOUN	CLASS	NOUN	ART + NOUN	
singular			plural			
1	mòtò ɲmána	è mòtò è ɲmána	2	wàtò wána	wátò wána	'person' 'child'
3	mòlélí mólèngò	mólélí mólèngò	4	mèlélí mélèngò	mélélí mélèngò	'food' 'sheep'
5	líkàlà líkpà	líkàlà lí:kpa	6	màkàlà mákpá	mákàlà má:kpá	'bridge' 'bag'
7	ètángùlè élélé	étángùlè élélé	8	βètángùlè βélélé	βétángùlè βélélé	'lizard' 'morning'
9	mbèzà mbóli	è mbèzà è mbóli	10	í mbèzà í mbóli	í mbèzà í mbóli	'boy' 'goat'
14	wòzǒ wǒngó	wózǒ wǒngó			/	'face' 'fear'
19	ìndóní dzùngù	índóní dzùngù			/	'bird' 'mosquito'



# Tonal and segmental article exponents in Mokpe (Bantu)

The segmental and the tonal article exponent are functionally equivalent.

- (2) ì mènέ ηmánέ βòβá ndáwò ó mbówà. **líkândò** /\*líkândò  
we see.PST.1PL small ugly house in village **roof.CL5.ART:DEF** roof.CL5

lí mà kúwú lì βáηgèjà  
CL5 PST finish INF get.damaged

‘We saw a small ugly house in the village. The roof had been damaged.’

Mokpe (prim. data)

- (3) mòkákè àndí kâti. **è** **mòtilèli** à βélindí mòtà βéndì.  
Mokake buy.3SG book **ART:DEF** **writer.CL1** CL1 be person.AM French

‘Mokake bought a book; the author is French.’

Mokpe (primary data)

## Article types in the world's languages

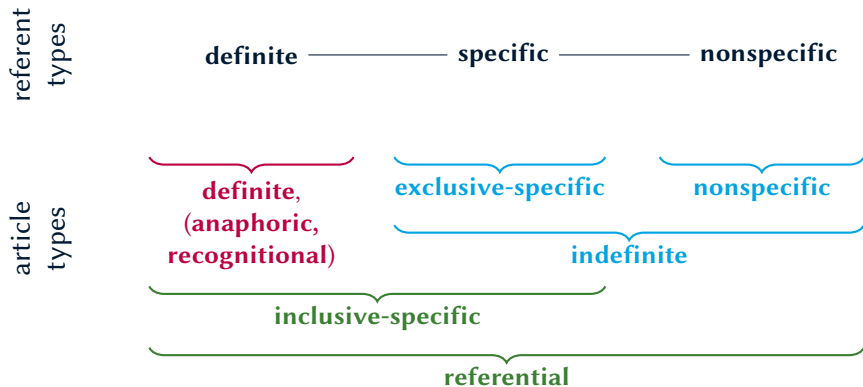
Based on their referential functions, we can distinguish 8 types of articles.

# Referential functions

(cf. Hawkins 1978; Ariel 1988; Himmelmann 1997; Dryer 2014)

referent type	example	
deictic	Can you see <i>the house</i> (over there)?	definite Domäne
<b>recognitional</b>	What happened to <i>the dog</i> (that we used to have)?	
absolutely unique	<i>The Earth</i> is round.	
<b>anaphoric</b>	Did you like the movie? Wasn't <i>it</i> great?	
bridging	Eva bought a book. <i>The author</i> is French.	
<b>situationally unique</b>	How do I get to <i>the center</i> ?	indefinite Domäne
establishing	Did you hear <i>the news</i> ? The entire museum burned down.	
<b>specific</b>	I met <i>a funny new neighbor</i> yesterday.	
<b>nonspecific</b>	Do you happen to have <i>a pen</i> ? Any pen will do.	
generic	<i>I like cats.</i>	

# The relation between referent types and article types



**Some examples**

# Recognitional article (Oksapmin)

Context: “The text to which the following example belongs was collected just after New Year’s Day which everybody in the community had known about and the churches had held special events for.” (Loughnane 2009: 124)

- (4) **niu jia max** bāten x-t-pel=o li=m xe-ja  
**new year ART:RECOG** pray O-PFV-FUT.PL=QUOT say-SEQ be-PRS.PL  
‘They wanted to pray for you, you know, that New Year.’

Oksapmin (Loughnane 2009: 124)

Context:

“In the following example, *max* is used to refer to the story that the speaker told earlier in the morning. This text had not been previously mentioned in the current story but all the addressees had been present when he told the previous story.” (Loughnane 2009: 124)

- (5) gin i ml-sa jəxe tumbuna paxna sup **stori max** pla gina  
now HESIT come-SEQ then ancestor hunger illness **story ART:RECOG** tell.PRS.SG now  
‘Now, I came up and told that story about famine in the old days. Now ...’

Oksapmin (Loughnane 2009: 124)

# Exclusive-specific article (Akan)

## X definite

- (6) a. mɔ-tɔ-ɔ     **ekutu bi**  
1SG-buy-PST **orange ART:EXSPEC**  
'I bought an orange.'
- b. **ekutu no/**     \***bi**     yɛ dɛw dɛɛ  
**orange ART:DEF ART:EXSPEC** be nice so  
'The orange is/was so nice.'     Akan (Arkoh and Matthewson 2013: 6)

## ✓ specific

- (7) me-wɔ     **akyɛde bi**     ma wo  
1SG-have **gift ART:EXSPEC** give 2SG  
'I have a gift for you.'     Akan (prim. data)

## X nonspecific

- (8) me-nya-a     anka     me-wɔ     **yere (\*bi)**  
1SG-get-PST before 1SG-have **wife ART:EXSPEC**  
'I wish I had a (any) wife.'     Akan (prim. data)

# Inclusive-specific article (Tongan)

## ✓ definite, specific

- (9) na'e sio 'a Sione ki **he** ta'ahine  
PST see ABS Sione to **ART:INSPEC** girl  
'Sione saw a/the girl.'

Tongan (Otsuka 2000: 50)

## ✗ nonspecific

- (10) 'oku 'i ai **ha** maa?  
PRS in there **ART:NSPEC** bread  
'Is there some bread?'

Tongan (Otsuka 2000: 50)



# Nonspecific article (Q'anjobal)

## X definite

- (11) **cham anima** may kon tojlaneni ay jun miman ya-tut  
CL:male person PST COMP pay.PST.S:3SG.O:1PL EXIST ART:EXSPEC big 3SG-house  
'The man who paid us has a big house.' Q'anjobal (prim. data)

## X specific

- (12) tzeb'ach yul **jun/** \***junoq** tuktuk mayal wawrtej naq tz'umon ch'en  
come.IMP in ART:EXSPEC ART:NSPEC tuktuk already called CL driver  
'Let's take a (certain) tuktuk. I already called the driver.' Q'anjobal (prim. data)

## ✓ nonspecific

- (13) asi' yul **junoq** tuktuk  
go.IMP in ART:NSPEC tuktuk  
'Let's take a (any) tuktuk.' Q'anjobal (prim. data)

# Referential article (Rapa Nui)

## ✓ definite

- (14) ki a kōrua ki **te** nu'u hakarōjo mai 'i a au he kī atu  
to PROP 2PL to **ART:REF** people listen hither IMM PROP 1SG NTR say away  
'To you, to the people listening, I tell you ...' Rapa Nui (Kieviet 2017: 46)

## ✓ specific

- (15) 'i te noho iŋa tuai era 'ā **te** tanata e tahi te 'iŋoa  
at ART:REF stay NMLZ ancient DIST IDENT **ART:REF** man NUM one ART:REF name  
ko Tu'uhakararo  
PROM Tu'uhakararo  
'In the old times (there was) a man called Tu'uhakararo.' Rapa Nui (Kieviet 2017: 238)

## ✓ nonspecific

- (16) he kī ō'oku ki kō'ku nā poki taina era mo oho o mātou mo kimi  
NTR say O.POSS:1SG to O.POSS:1SG PL child sibling DIST for go of 1PL.EX for search  
i **te** pipi  
ACC **ART:REF** shell  
'I told my brothers and sisters that we would go to look for (any kind of) shells.'  
Rapa Nui (Kieviet 2017: 239)

# Referential article (Rapa Nui)

Examples of nonreferential contexts, in which the referential article is absent:

- predicative nominal expressions:

(17) a Thor Heyerdahl [**he** científico e tahi]  
PROP Thor Heyerdahl **PRED** scientist NUM one  
'Thor Heyerdahl was a scientist' (Kieviet 2017: 452)

- identificational contexts:

(18) rā me'e era pē he tiare [**he** mōrī]  
DIST thing DIST like **PRED** flower PRED light  
'Those things like flowers are lights.' (Kieviet 2017: 452)

- instrumental *hai*:

(19) e paru rō 'ā i te rāua hakari [**hai** kī'ea].  
IPFV paint EMPH CONT ACC ART:REF 3PL body **INSTR** red.earth  
'They painted their bodies with red earth.' (Kieviet 2017: 220)

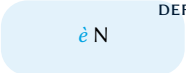
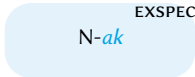
# **A typology of articles and article systems**

# A typology of articles

referent types	article types		
	1 referent type	2 referent types	3 referent types
definite	DEFINITE/ ANAPHORIC/ RECOGNITIONAL	INCL-SPECIFIC	REFERENTIAL
specific	EXCL-SPECIFIC	INDEFINITE	
nonspecific	NONSPECIFIC		

# A typology of article systems

article systems that cover the referential space only **minimally**

referent types	system I	system II
definite	 è N <sup>DEF</sup>	
specific		 N-ak <sup>EXSPEC</sup>
nonspecific		
N systems	50	2
e.g.	Ao <b>Mokpe</b>	Karaja <b>Domari</b>

# A typology of article systems

Article systems that cover **most** of the referential space

referent types	system III	system IV	system V	system VI
definite	DEF N <i>no</i>	INSPEC		
specific	EXSPEC N <i>bi</i>	N- <i>ʔi</i>	EXSPEC <i>jun</i> N	INDEF
nonspecific			NSPEC <i>junoq</i> N	N- <i>gə</i>
N systems	7	2	/	15
e.g.	Palula, <b>Akan</b>	Bemba, <b>Nuuchahnulth</b>	<b>Q'anjobal</b>	Carib, <b>Bonan</b>

# A typology of article systems

article systems that cover the **entire** referential space

referent types	system VII	system VIII	system IX	system X
definite	<i>das</i> N <sup>DEF</sup>	<i>he</i> N <sup>INSPEC</sup>	N- <i>sh</i> <sup>DEF</sup>	<i>te</i> N <sup>REF</sup>
specific	<i>ein</i> N <sup>INDEF</sup>	<i>he</i> N	N- <i>m</i> <sup>EXSPEC</sup>	
nonspecific		<i>ha</i> N <sup>NSPEC</sup>	N- <i>eem</i> <sup>NSPEC</sup>	
N systems	12	3	3	4
e.g.	Lavukaleve <b>German</b>	Blackfoot, <b>Tongan</b>	Biak, <b>Crow</b>	Halkomelem, <b>Rapa Nui</b>



## definite

(20) I finally bought **the** bike that I had told you about.

## specific

(21) I bought **a** bike.

## nonspecific

(22) I want to buy **a** a bike, but I haven't found a good one yet.

## definite

- (23) 'alu ki mui 'i **he** kā  
go SPAT.P.ALL back LOC **ART:INSPEC** car  
'Go to the back of the car.'

Tongan (Völkel 2010: 135)

## specific

- (24) na'e sio 'a Sione ki **he** ta'ahine  
PST see ABS Sione to **ART:INSPEC** girl  
'Sione saw a (/the) girl.'

Tongan (Otsuka 2000: 50)

## nonspecific

- (25) 'oku 'i ai **ha** maa?  
PRS in there **ART:NSPEC** bread  
'Is there some bread?'

Tongan (Otsuka 2000: 50)



# Rapa Nui

## definite

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to PROP 2PL to **ART:REF** people listen hither IMM PROP 1SG NTR say away  
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# A typology of article systems

## The division into a definite and an indefinite domain

Article systems most frequently divide the referential space into a definite and an indefinite domain.

### definite vs. indefinite

- 1 definite article (50)
- 1 indefinite article (15)
- definite + indefinite article (12)

### other division

- 1 exclusive-specific article (2)
- 1 inclusive-specific article (2)
- inclusive-specific + nonspecific article (3)

# A typology of article systems

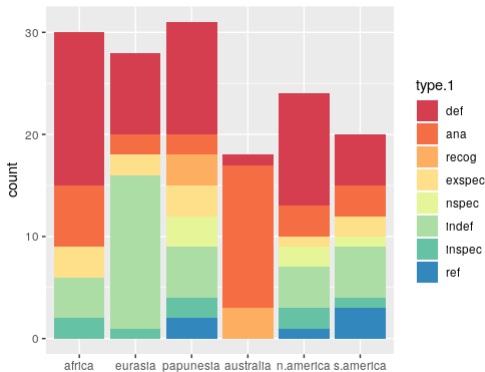
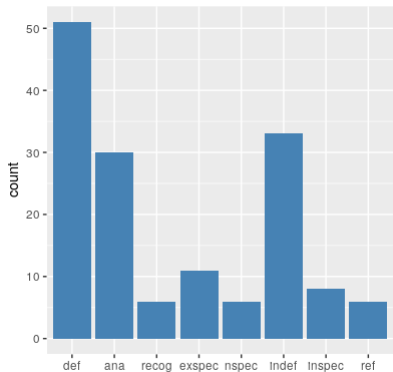
## non-attested article systems

referent types	system *I	system *II	system *III	system *IV
definite		DEF	DEF-NSPEC	DEF-NSPEC
specific				EXSPEC
nonspecific	NSPEC	NSPEC	DEF-NSPEC	DEF-NSPEC

- The existence of nonspecific articles depends on the existence of specific articles in the system.
- As expected, a single article cannot encode definite and nonspecific referents without encoding specific referents.

## Areal trends

# Areal distribution of article types





# Areal distribution of article types

## Anaphoric articles (Australia)

- often no distinct third person pronoun, use of demonstrative pronouns instead
- often no formal distinction between pronominal and adnominal forms (Bhat 2004: 191)

## Indefinite articles (Eurasia)

- family influence (Iranian & Turkic)?
- language contact?
- ☞ differential object marking (?)

## Nonspecific articles (Papunesia & North America)

- for North America (Mayan, Siouan, Wakashan), verbal markers may be the source for nonspecific articles, which could have extended to the nominal domain due to word class flexibility (cf. Rijkhoff and Lier 2013)
- ☞ irrealis marker > nonspecific marker

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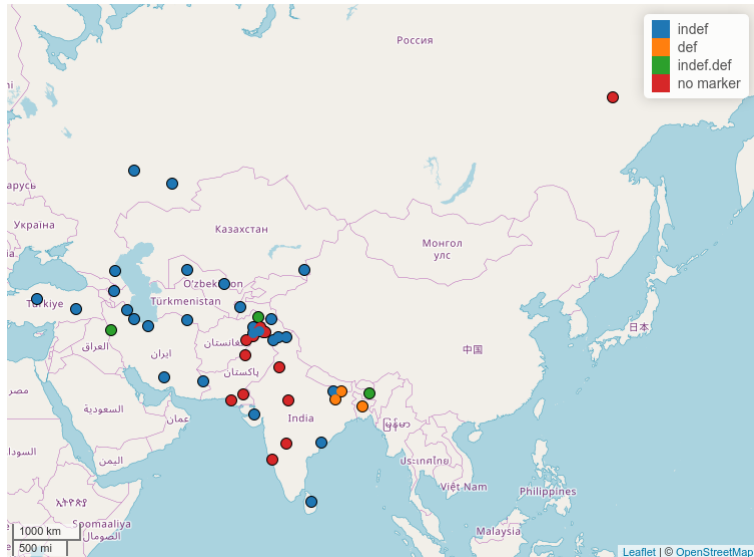
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👉 irrealis marker > nonspecific marker

# Indefinite markers in Eurasia (Indo-Iranian & Turkic)



(Johanson and Csató 1998; Cardona and Jain 2003; Haig 2008; Windfuhr 2013)

# Indefinite markers in Eurasia (Indo-Iranian & Turkic)

## Definiteness-based differential object marking

- If a language only marks definite (or specific) objects in contrast to indefinite (nonspecific) objects, case marking takes over the coding of the referential value in object position.

- (32) a. Mary kek-i yap-tı  
Mary cake-ACC make-PST  
'Mary baked the cake'
- b. Mary **bir** kek yap-tı  
Mary ART:INDEF cake make-PST  
'Mary baked a cake'

Turkish (Hedberg, Görgülü, and Mameni 2009: 13)

- In subject positions, the referent is most often definite and identifiable anyway, which means that there is less need for disambiguation.

### **Turkic & Iranian**

often definiteness-based DOM  
many indefiniteness markers

vs.

### **Indo-Aryan**

often animacy-based DOM  
few indefiniteness markers

# A possible source for nonspecific articles

- In the North American languages of the sample, we find a formal relation between specific and nonspecific articles:

	<b>exclusive-specific article</b>	<b>nonspecific article</b>
Q'anjobal	<i>jun</i>	<i>jun-oq</i>
Lakota	<i>wã</i>	<i>wã-ži</i>
Crow	<i>-m</i>	<i>-eem</i>

- Is there a plausible marker that combines with an specific (indefinite) article in order to form a nonspecific article?

# Irrealis marker > nonspecific article

## -oq as an irrealis marker in the verbal domain

- (33) q-q'anjab' ayach ta q-ach q'anjab'-oq  
POT-talk TO.2 COND POT-2PL talk-IRR  
'X will talk to you, if you talk.'

Q'anjobal (Mateo Toledo 2017: 538)

- (34) hoq-ach tyaj-l-oq yekal  
POT-2 prayer-INTR-IRR tomorrow  
'You will pray tomorrow'

Q'anjobal (Mateo Toledo 2017: 538)

## -oq with nominal expressions

- (35) man anima-oq hach  
NEG person-IRR 2SG  
'You are not a person.'

Q'anjobal (Mateo Toledo 2017: 551)

- (36) maktxel max h-aq'-kan ko-taynomal-oq  
who PFV 2SG-give-DIR:stay 1PL-guard-IRR  
'Who did you leave as our guard?'

Q'anjobal (Mateo Toledo 2017: 553)

# Verbal irrealis markers on nouns

Ch'ol allows for such a marker on indefinite articles with predicative nouns as well.

- (37) ma'an [jum-p'ej=ik vivienda]  
EXIST.NEG **ART:INDEF-CL=IRR** residence  
'There isn't any residence.' Ch'ol (Vázquez Alvarez 2011: 239)

Hidatsa allows a conditional marker on the noun instead of the indefinite article.

- (38) ééhgee-wa-rúg aru-nii-ma-hgi.wé'-he  
know-1.ACT-**COND** IRR-2.STAT-1.ACT-tell-EMPH  
If I knew it I would tell you.' Hidatsa (Park 2012: 228)
- (39) hiraacá-mià-wa m-úá-waa-c  
Hidatsa-woman-**ART:INDEF** 1-marry-CAUS.1-DECL  
'I married a Hidatsa woman.' Hidatsa (Park 2012: 368)
- (40) hiraacá-mià-rúg aru-m-úá-waa-c  
Hidatsa-woman-**COND** IRR-1-marry-CAUS.1-DECL  
'I am going to marry a Hidatsa woman.'  
literally: 'If she is a Hidatsa woman I will marry her.' Hidatsa (Park 2012: 368)

# Realis marker > specific article

Verbal realis markers may also be the source of specific (and definite?) articles in Siouan.

## Assiniboine declarative marker -c

- (41) i-má-stùsta-c  
LOC-1SG-be.tired-DECL  
'I am tired of it.' Assiniboine (Cumberland 2005: 61)

## Assiniboine specific article -c

- (42) a. šųkat<sup>h</sup>ąka o-wa-ne  
horse ST-1SG-look.for  
'I am looking for a horse (no particular in mind)'  
b. šųkat<sup>h</sup>ąka-c o-wa-ne  
horse-SPEC ST-1SG-look.for  
'I am looking for a particular horse' Assiniboine (Cumberland 2005: 108)



## **Concluding remarks**

# Concluding remarks

## Article types & article systems

- we can distinguish 8 types of articles in the languages of the world:  
**DEF**, **ANA**, **RECOG**, **INDEF**, **EXSPEC**, **NSPEC**, **INSPEC**, **REF**
- article systems tend to divide the referential space into a definite and an indefinite domain
- nonspecific articles only occur in systems with specific articles

## Macro areal patterns

- Certain grammatical properties could be related to certain types of articles:
  - large demonstrative system with anaphoric pronouns facilitate the development of anaphoric articles
  - word class flexibility might allow for verbal markers to occur on nouns and nonspecific articles
  - definiteness-based DOM might reduce the potential to develop a definite article

## Definite articles with demonstratives and possessives

- the stronger diachronic relation between demonstratives and definite articles can account for different behaviors of the article with demonstratives and possessives

**Thank you!**

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# Anaphoric article (Limbum)

## anaphoric referent

(43) a. àmbò djò?    à    m    cī    rò    bzh̄ñ ā    tárté    ye o    **mú**    **mò?**  
when elephant s.3SG PST3 PROG search food 3SG stumble 3SG with **child one**  
'When it was looking for food, the elephant stumbled into a child.'

b. ...**mú** **(\*f5)**    à    kē?    á    cí    wārī  
**child ART:ANA** 3SG start INF PROG cry  
'The child started to cry.'

Limbum (prim. data)

## bridging referent

(44) Tāntōh ā    mū    yū    ŋwā? mō. **ŋwè**    **rsāŋ**    **(\*f5)**    á    ŋwè-mbòm.  
Tantoh has PST2 buy book one **person writing ART:ANA** is person-Wimbum  
'Tantoh has bought a book; the author is a Wimbum person.'

Limbum (prim. data)

## situationally unique referent

(45) **ntāh**    **(\*f5)**    yō    fé    à    là?    nā?  
**market.CL9 ART:ANA** be.CL9 where in village this?  
'Where is the market in this village?'

Limbum (prim. data)





# The lack of generic articles

- Articles whose main function it is to encode generic referents are not attested in the world's languages.
- Different types of articles can be used to express generic referents, but this is not their main function.

Examples of languages with articles that **cannot occur** in generic contexts:

- (49) **gárgá** íntfù-rà há=gyá-mə  
**termite** wood-ACC 3SG.M=chew-IRR  
'A termite eats wood.' Sheko (Hellenthal 2010: 142)
- (50) **ógbén** e-yíwo  
**child** PROG-cry  
'A child is crying / Children are crying' Oko (Atoyebi 2010: 161)
- (51) **amzarái** muṛ-u=bhaáu **insaán** na kha-áan-u  
**lion** die.PTCP-M.SG=ADJ **human.being** NEG eat-PRS-MS.G  
'A lion doesn't eat a human being that is dead.' Palula (Liljegren 2016: 398)

# Definite articles with demonstratives and possessives

# Definite articles with demonstratives and possessives

- A syntactic category of “determiners” (Bloomfield 1933; Abney 1987) assigns articles and demonstratives to the same category.
- This motivates the assumption that, by default, they usually do not co-occur.

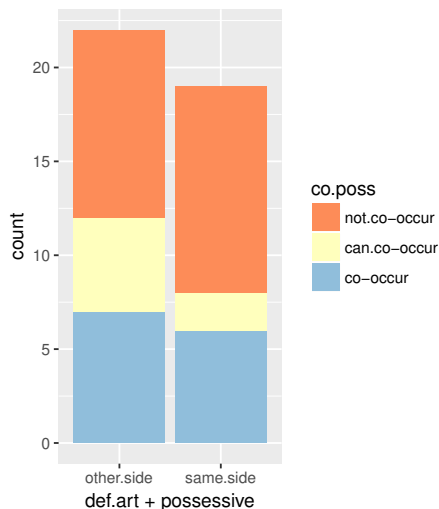
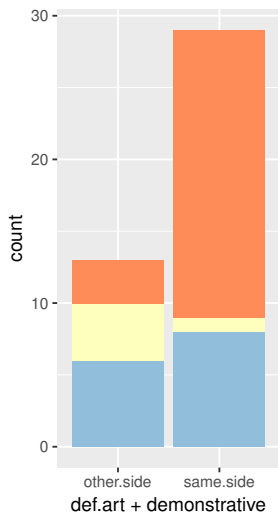
Is this supported by a crosslinguistic sample?

- ☞ We only see a trend against co-occurrence if both the article and the demonstrative occur on the same side of the noun.

What about articles and adnominal possessive markers?

- ☞ Definite articles and possessives show no such positional effect.

# Definite articles with demonstratives and possessives



- 👉 A plausible explanation of this difference is that demonstratives are a much more frequent source of definite articles than possessives.

# Ch'ol as an example of mutually exclusive ART and DEM

**ART** does not co-occur with **DEM**:

- (52) a. **ili** xkaläl-ob  
**DEM:PROX** girl-PL  
'this girl'  
b. **li** xk'aläl  
**ART:DEF** girl  
'the girl'

Ch'ol (Vázquez Alvarez 2011: 85,355)

**ART** co-occurs with **POSS**:

- (53) **li** k-alo'bil  
**ART:DEF POSS:1**-son  
'my son'

Ch'ol (Vázquez Alvarez 2011: 327)

Also **DEM** can co-occur with **POSS**:

- (54) **ili** la=k-tyaty=i  
**DEM:PROX PL.IN-POSS:1**-lord-PM  
'(this) our Lord'

Ch'ol (Vázquez Alvarez 2011: 341)

# Supvire as an example of co-occurring ART and DEM

**ART** and **DEM** co-occur and are on different sides of the noun:

- (55)    **ɲgé**      ba-**ɲí**  
         **DEM.CL1** river-**ART:DEF.CL1**  
         ‘this river’
- (56)    **ɲpíí**      cyèe-**bíí**  
         **DEM.CL2** women-**ART:DEF.CL2**  
         ‘these women’
- (57)    **ɲké**      kàn-**he**  
         **DEM.CL3** village-**ART:DEF.CL3**  
         ‘this village’
- (58)    **ɲcíí**      kàri-**gíí**  
         **DEM.CL4** affairs-**ART:DEF.CL4**  
         ‘these affairs’
- (59)    **ɲté**      nàɲkòpyi-**ré**  
         **DEM.CL5** children-**ART:DEF.CL5**  
         ‘these children’

# Systems with functionally overlapping articles

- Systems that have articles with overlapping functions are rare.
- Exceptions are anaphoric or recognitional articles that occur in systems with a definite article.

In Jamsay, the definite article and the anaphoric article can even co-occur.

- (60) tògù pò:ró tógó kó bèrê: bè nû: [**kò** tóg **kù<sup>n</sup>**]  
Hütte erste Hüttenbau 3SG.NHUM in 3PL .PFV **ART:ANA** Hütte **ART:DEF**  
úró táná-ŋá mèy<sup>n</sup> nîŋ yó=kò  
Hütte bekomm-CAUS und nun existier=NHUM  
'Die erste Hütte, die sie bauten und in der sie wohnten, diese Hütte als Haus  
ausgebaut, steht noch immer dort.'

Jamsay (Heath 2008: 164)



# Systems with functionally overlapping articles

A rare exception to this is Basque. Basque has an inclusive-specific (-a) and an indefinite article (*bat*).

## **-a in a definite context**

- (61) nire lagun-a                      gure herri-ko alkate-a                      da  
my friend.ART:INSPEC our town-REL mayor-ART:INSPEC is  
'My friend is the mayor of our town.' Basque (Hualde and Ortiz de Urbina 2003: 180)

## **-a in a specific context**

- (62) kotxe berri-a                      erosi dut  
car new-ART:INSPEC buy AUX  
'I have bought a new car.' Basque (Hualde and Ortiz de Urbina 2003: 119)

# Systems with functionally overlapping articles

## *bat* in specific/nonspecific contexts

- (63) Bilbon [etxe **bat**] erosi behar dut  
Bilbao.LOC house **ART:INDEF** buy need AUX  
'I need to buy a house in Bilbao.' Basque (Hualde and Ortiz de Urbina 2003: 694)
- (64) zergatik ez erregutu hari [bitxi **bat-zuk**] utz ziezazkion?  
why not beg him jewel **ART:INDEF-PL** lend AUX.S.COMP  
'Why not beg her to lend her some jewels?'  
Basque (Hualde and Ortiz de Urbina 2003: 503)

- This functional overlap is less surprising, however, given that the inclusive-specific article in Basque is developing into a general noun marker, and used in a number of nonreferential contexts as well.
  - Therefore, it may be plausible that *-a* is not enough to signal the non-identifiability of a (prominent?) discourse participant, given that it does not disambiguate between definite and specific referents.
- This in turn may favor the development of *bat* into an indefinite article, especially in a bilingual setting with Spanish.

# Are there non-anaphoric definite articles?

- Dryer (2014) predicts the existence of non-anaphoric definite articles

(65) anaphoric definite > **nonanaphoric definite** > pragmatically specific  
indefinite > semantically specific indefinite > semantically nonspecific  
indefinite (reference hierarchy, Dryer 2014)

- Schwarz (2013) discusses languages that have two distinct types of definite articles:
  - anaphoric definite (strong)
  - non-anaphoric definite (weak)
- the following languages are supposed to have non-anaphoric articles:
  - Ma'di → both articles can (co-)occur in anaphoric contexts
  - Lakota → all crucial examples of the anaphoric article go back to Buechel (1939)
  - German → within sentences, the distinction of the two types being syntactically restricted to prepositional phrases in the singular
  - Fering → within sentences
- the presence of the anaphoric articles does not automatically block the use of the definite article in anaphoric contexts
- emerging definite articles that develop from e.g. possessives could be non-anaphoric definite articles (Indonesian?)

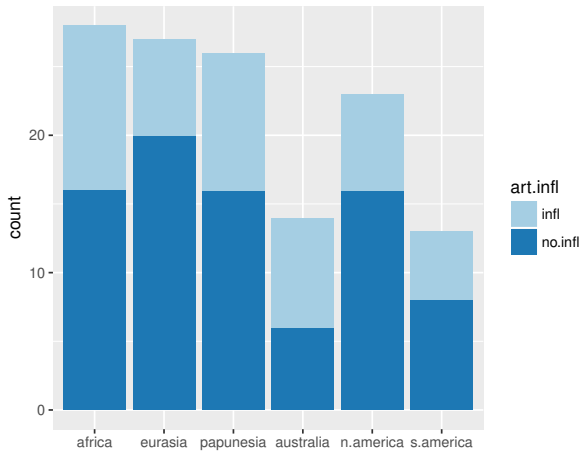
# Article inflection (number, gender, case)

Potentelle Faktoren, die das Flexionsverhalten von Artikeln beeinflussen

- ☹ macro area
- ☹ position of the article (pre/postnominal)
- ☹ article type
  
- 😊 noun inflection
- 😊 inflection of the source element of the article  
(demonstrative, personal pronoun, numeral 'one')

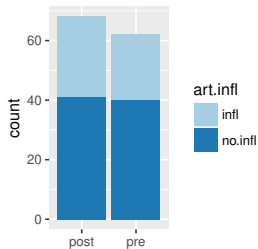
# Article inflection

☹ macro area

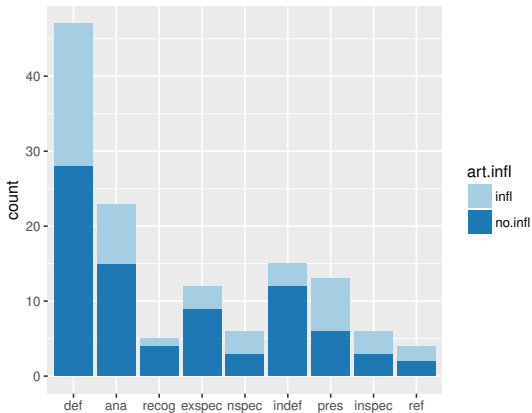


# Article inflection

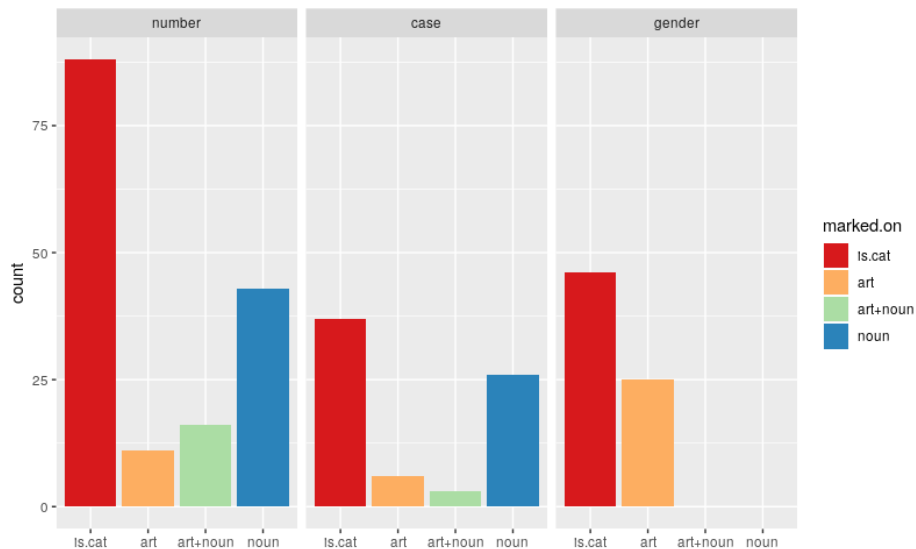
☹️ position of the article



☹️ article type



# Inflection of the article and the noun



# Inflection of the article and its source element

The most frequent source elements are:

- demonstratives in the definite domain
- numeral ‘one’ in the indefinite domain
- personal and possessive pronouns, copula, partitive markers, ...

There are 3 possible scenarios:

- (i) the article retains the inflection of its source element
- (ii) the article loses morphological distinctions of its source element
- (iii) the article develops new inflectional morphology

→ we almost only find evidence for scenario (i) and (ii)



# Inflection of articles and their source elements

language	article	ART-inflection	pronoun	PRO-inflection
Oko (def)	<i>àyɛ</i> (SG), <i>ábɛ</i> (PL)	num	<i>àyɛ</i> (3SG), <i>ábɛ</i> (3PL)	num
Lango (ana)	<i>én</i>	/	<i>én</i> (3SG)	<b>num</b>
Amharic (def)	-w/u (M.SG, PL), -wa (F.SG)	num+gen	-w/u (M.SG), -wa (F.SG)	num+gen
Pap. Malay (def)	<i>de</i> (3SG)	num	<i>de</i> (3SG)	num
Biak (spec.in)	-ya/-i (3SG)	num+gen	<i>i</i>	num+gen
Warrwa (ana)	<i>kinya</i>	case	<i>kinya</i> (3SG)	<b>num</b> +case
Dyari (def)	<i>nhawu</i> (3NF.SG)	num+gen+case	<i>nhawu</i> (3NF.SG)	num+gen+case
Sumu (ana)	-ni (3SG)	/	-ni (3SG)	<b>num</b>
Cupeño (def)	<i>pe'</i> (SG), <i>pem</i> (PL)	num	<i>pe'</i> (3SG), <i>pem</i> (3PL)	num
Apinayé (def)	<i>ja</i>	/	<i>ja</i> (3SG)	<b>num</b>

# Inflection of articles and their source elements

language	article	ART-inflection	pronoun	PRO-inflection
Oko (def)	<i>àyɛ</i> (SG), <i>ábɛ</i> (PL)	num	<i>àyɛ</i> (3SG), <i>ábɛ</i> (3PL)	num
Lango (ana)	<i>én</i>	/	<i>én</i> (3SG)	<b>num</b>
Amharic (def)	<i>-w/u</i> (M.SG, PL), <i>-wa</i> (F.SG)	num+gen	<i>-w/u</i> (M.SG), <i>-wa</i> (F.SG)	num+gen
Pap. Malay (def)	<i>de</i> (3SG)	num	<i>de</i> (3SG)	num
Biak (spec.in)	<i>-ya/-i</i> (3SG)	num+gen	<i>i</i>	num+gen
Warrwa (ana)	<i>kinya</i>	case	<i>kinya</i> (3SG)	<b>num</b> +case
Dyari (def)	<i>nhawu</i> (3NF.SG)	num+gen+case	<i>nhawu</i> (3NF.SG)	num+gen+case
Sumu (ana)	<i>-ni</i> (3SG)	/	<i>-ni</i> (3SG)	<b>num</b>
Cupeño (def)	<i>pe'</i> (SG), <i>pem</i> (PL)	num	<i>pe'</i> (3SG), <i>pem</i> (3PL)	num
Apinayé (def)	<i>ja</i>	/	<i>ja</i> (3SG)	<b>num</b>

# Inflection of articles and their source elements

language	article	ART-inflection	Demonstrativum	DEM-inflection
Supyire (def)	<i>-ke</i> (CL2.SG)	num+gen	<i>-ṛǰé</i> (CL2.SG)	num+gen
Konso (def)	<i>-siʔ</i> (M.SG) <i>-siniʔ</i> (M.PL)	num+gen	<i>-oosiʔ</i> (M.SG) <i>-oosiniʔ</i> (M.PL)	num+gen
Sheko (def)	<i>-ns/nf</i> (M.SG) <i>-in</i> (F.SG)	gen	<i>yīz</i> (M.SG) <i>yīni</i> (F.SG)	num+gen
Hungarian (def)	<i>a</i>	/	<i>az</i> (NOM.SG)	num+case
Armenian (def)	<i>-n</i>	/	<i>-ayn</i> (SG)	num+case
Maori (def)	<i>te</i> (SG) <i>ngā</i> (PL)	num	<i>tēnā</i> (SG) <i>ēnā</i> (PL)	num
Alamblak (def)	<i>ind</i>	num+gen	<i>indar</i>	num+gen
Ch'ol (def)	<i>li</i>	/	<i>ili</i>	/
Ute (def)	<i>ʻu</i> (S.AN.SG) <i>ʻumu</i> (S.AN.PL)	num+gen+case	<i>ʻuwa</i> (S.AN.SG) <i>ʻumu</i> (S.AN.PL)	num+gen+case
Tarahumara (def)	<i>echi</i>	/	<i>echi</i>	/
Arawak (def)	<i>to</i> (NM.SG), <i>na</i> (PL)	num+gen	<i>toho</i> (NM.SG), <i>naha</i> (PL)	num+gen

# Das Sample: Afrika

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## Afro-Asiatic

1	Amharic	Semitic	(Leslau 1995)
2	Dime	South Omotic	(Seyoum 2008)
3	Hausa	West Chadic	(Newman 2000)
4	Konso	East Cushitic	(Orkaydo 2013)
5	Moloko	North Biu-Mandara	(Friesen 2017)
6	Sheko	Dizoid	(Hellenthal 2010)

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## Benue-Congo

7	Oko	Oko-Eni-Osayan	(Atoyebi 2010)
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## Dogon

8	Jamsay	Dogon	(Heath 2008)
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## Eastern Sudanic

9	Gaahmg	Eastern Jebel	(Stirtz 2011)
10	Lango	Nilotic	(Noonan 1992)

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## Mande

11	Beng	Eastern Mande	(Paperno 2014)
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## Niger-Congo

12	Akan	Kwa (Nyo)	(Amfo 2010; Arkoh 2011; Arkoh and Matthewson 2013), Sampson Korsah, pc
13	Bemba	Sabi	(Givón 1969)
14	Bullom So	Mel	(Childs 2011)
15	Limbang	Narrow Grassfields	(Fransen 1995), Jude Nformi, pc
16	Logba	Kwa (Na-Togo)	(Dorvlo 2008)
17	Mokpe	Sawabantu	primary data, (Atindogbe 2013)
18	Runyankore	Northeast Savanna Bantu	(Asimwe 2014)
19	Supyire	Gur	(Carlson 1994)

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## Sandawe

20	Sandawe	Sandawe	(Steeaman 2011)
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## Songhay

21	Koyra Chiini	Songhay	(Heath 1999)
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# Das Sample. Eurasien

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## Afro-Asiatic

1	Hebrew	Semitic	(Glinert 2005)
2	Neo-Aramaic	Semitic	(Khan 2008)

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## Altaic

3	Bonan (Bao'an)	Mongolic	(Fried 2010)
4	Turkish	Turkic	(Göksel and Kerslake 2005)

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## Austro-Asiatic

5	Kharia	Munda	(Peterson 2011)
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## Austronesian

6	Sri Lanka Malay	Malayo-Sumbawan	(Nordhoff 2009)
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## Dravidian

7	Tamil	Southern Dravidian	(Lehmann 1993)
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## Indo-European

8	Albanian	Albanian	(Newmark, Prifti, and Hubbard 1982; Buchholz and Fiedler 1987; Zymberi 2004)
9	Armenian	Armenian	(Dum-Tragut 2009; Andonian 2005)
10	Dameli	Iranian	(Perder 2013)
11	Domari	Indic	(Matras 2012)
12	German	Germanic	(Hentschel and Weydt 2003)
13	Irish	Celtic	(Stenson 2008a; Stenson 2008b)
14	Palula	Dardic	(Liljegren 2016)
15	Rajbanshi	Iranian	(Wilde 2008)

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## Isolate

16	Basque	Isolate	(de Rijk 2008; Hualde and Ortiz de Urbina 2003)
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## Nakh-Dagestanian

17	Aghul	Lezgif	(Ganenkov, Maisak, and Merdanova 2009)
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## Sino-Tibetan

18	Ao (Mongsen)	Kuki-Chin	(Coupe 2007)
19	Lepcha	Lepcha	(Plaisir 2006)

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## Uralic

20	Hungarian	Ugric	(Kenesei, Vago, and Fenyvesi 1998)
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# Das Sample. Papunesien

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<b>Austro-Asiatic</b>			
1	Papuan Malay	Malayo-Sumbawan	(Kluge 2017)

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<b>Austronesian</b>			
2	Agta	Greater Central Philippine	(Robinson 2008)
3	Biak	South Halmahera	(van den Heuvel 2006)
4	Maori	Oceanic (Eastern Polynesian)	(Harlow 2012)
5	Rapa Nui	Oceanic (Centr. East. Polynesian)	(Kieviet 2017; Weber 2003)
6	Siar Lak	Oceanic	(Rowe 2005)
7	Sye	Oceanic (Southern Melanesian)	(Crowley 1998)
8	Tongan	Oceanic (Nuclear Polynesian)	(Völkel 2010; Churchward 1985)
9	Yapese	Yapese	(Jensen 1977)

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<b>Oksapmin</b>			
10	Oksapmin	Oksapmin	(Loughnane 2009)

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<b>Sepik</b>			
11	Alamblak	Sepik Hill	(Bruce 1979)

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<b>Skou</b>			
12	Skou	Western Skou	(Donohue 2004)

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<b>Solomons East Papuan</b>			
13	Lavukaleve	Lavukaleve	(Terrill 2003)

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<b>Timor-Alor-Pantar</b>			
14	Abui	Greater Alor	(Kratochvil 2007)

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<b>Trans-New Guinea</b>			
15	Menya	Angan	(Whitehead 2006)

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# Das Sample. Australien

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<b>Bunuban</b>			
1	Gooniyandi	Bunuban	(McGregor 1990)

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<b>Gunwinyguan</b>			
2	Wubuy	Nunggubuyu	(Heath 1984)

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<b>Mangarrayi-Maran</b>			
3	Mangarrayi	Mangarrayi	(Merlan 1989)

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<b>Maningrida</b>			
4	Curagone	Bureran	(Green 1995)

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<b>Mirndi</b>			
5	Jingulu	Djingili	(Pensalfini 1997)

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<b>Nyulnyulan</b>			
6	Bardi	Nyulnyulan	(Bower 2004)
7	Warrwa	Nyulnyulan	(McGregor 1994b)

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<b>Pama-Nyungan</b>			
8	Diyari	Central Pama-Nyungan	(Austin 2011)
9	Duuridjawa	Southeastern Pama-Nyungan	(Kite and Wurm 2004)
10	Martuthunira	Western Pama-Nyungan	(Dench 1994)
11	Yankuntjatjara	Western Pama-Nyungan	(Goddard 1985)
12	Yolngu	Yolngu	(Wilkinson 1991)

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<b>Worrorran</b>			
13	Gunin	Worrorran	(McGregor 1994a)

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<b>Yangmanic</b>			
14	Wardaman	Yangmanic	(Merlan 1994)

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# Das Sample. Nord-Amerika

<b>Algic</b>			
1	Blackfoot	Algonquian	(Taylor 1969; Frantz 1991)
<b>Hokan</b>			
2	Chimariko	Chimariko	(Jany 2009)
<b>Mayan</b>			
3	Ch'ol	Mayan	(Vázquez Alvarez 2011)
<b>Misulmalpan</b>			
4	Sumu (Mayangna)	Misumalpan	(Norwood 1997)
<b>Mixe-Zoque</b>			
5	Zoque	Mixe-Zoque	(Johnson 2000)
<b>Muskogean</b>			
6	Koasati	Muskogean	(Kimball 1985)
<b>Oto-Manguean</b>			
7	Chatino (Teotepecan)	Zapotecan	(McIntosh 2011)
<b>Salishan</b>			
8	Halkomelem	Central Salish	(Suttles 2004)
<b>Siouan</b>			
9	Crow	Core Siouan	(Graczyk 2007)
10	Lakota	Core Siouan	(Van Valin 1977; Ingham 2003; Rood and Taylor 1996)
<b>Totonacan</b>			
11	Tepehua	Totonacan	(Kung 2007)
<b>Uto-Aztecan</b>			
12	Cupeño	California Uto-Aztecan	(Hill 2006)
13	Tarahumara	Tarahumaran	(Cohen 1998)
14	Ute	Numic	(Givón 2011)
<b>Wakashan</b>			
15	Nuuchahnulth	Southern Wakashan	(Davidson 2002)

## Xinkan



# Das Sample. Süd-Amerika

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## Arawakan

1	Arawak	Caribbean Arawakan	(Pet 2011)
2	Asheninka Perené	Pre-Andine Maipuran	(Mihás 2010)
3	Bare	Inland North. Arawakan	(Aikhenvald 1995)
4	Baure	Bolivia-Parana	(Danielsen 2007)
5	Parecis	Central Arawakan	(Barros Brandão 2014)
6	Wayuu	Wayuu	(Álvarez 2017)

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## Cariban

7	Carib	Cariban	(Courtz 2008)
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## Choco

8	Epena Pedee	Choco	(Harms 1994)
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## Macro-Ge

9	Apinayé	Ge-Kaingang	(Cunha de Oliveira 2005)
10	Karajá	Karajá	(Ribeiro 2012)

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## Nambikwaran

11	Sabanê	Sabanê	(Antunes de Araujo 2004)
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## Tucanoan

12	Cubeo	Tucanoan	(Chacon 2012)
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