

Indexing of oblique participants: a preliminary typology

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Acknowledgment

- This work is part of a long-term typological project on the interactions between head-marking (indexing) and dependent-marking (flagging) in the languages of the world.
- Some results have already been presented and published (Arkadiev 2011, 2013, 2016, 2024a,b,c), but still work in progress.

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Acknowledgment

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Roadmap

- What it is about
- Sample and distribution
- Indexed participants
- Role of prominence hierarchies
- Possible diachronic origins
- Discussion

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Pintupi (Pama-Nyungan > Desert Nyungic; Hansen & Hansen 1978: 61)

(1) *ma_laku=latju=tjanampalura* *pitjangu*
return=1PL.EX.SBJ=3PL.AV went
ma_lpu-ngkamarra *patjal-tjakumarra*
spirit-AV biting-AV
'We turned back to avoid the spirits biting us.'

AV – avoidance case, EX – exclusive, SBJ – subject



What it is about

- A phenomenon that has almost completely evaded the attention of typologists.
- Indexing is (unsurprisingly) believed to be restricted to core grammatical relations.
- Nichols (1986: 78): a hierarchy of construction types favouring head-marking:

most likely

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governed > subcategorized > inner adverbials > outer adverbials
- Still, indexing of obliquely-marked participants is attested across the languages of the world.

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- Indexing of non-subject (S/A) participants flagged differently from objects (P, T, R).
- In other words, double-marking (simultaneous flagging and indexing) of participants that are treated as oblique in a given language.
- Semasiological approach: from form to meaning.

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Excluded:

- various “non-canonical” roles encoded in the same way as core participants, e.g. experiencers, inanimate causes etc.
- cases where a peripheral participant is promoted to core status (e.g. by an applicative) and hence indexed and flagged in the same way as P (or, more rarely, R);
- so-called prominent internal possessors, i.e. genitive-marked possessors of clause-level arguments indexed in the predicate (see Bárány et al. eds. 2019).

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Sample and distribution

- Language sample:
 - a representative convenience sample of languages showing double-marking of at least some non-subject (S/A) participants;
 - 188 languages from 72 families and 104 genera (including isolates);
 - the sample is purposefully not genealogically stratified, in order to capture family-internal variation;
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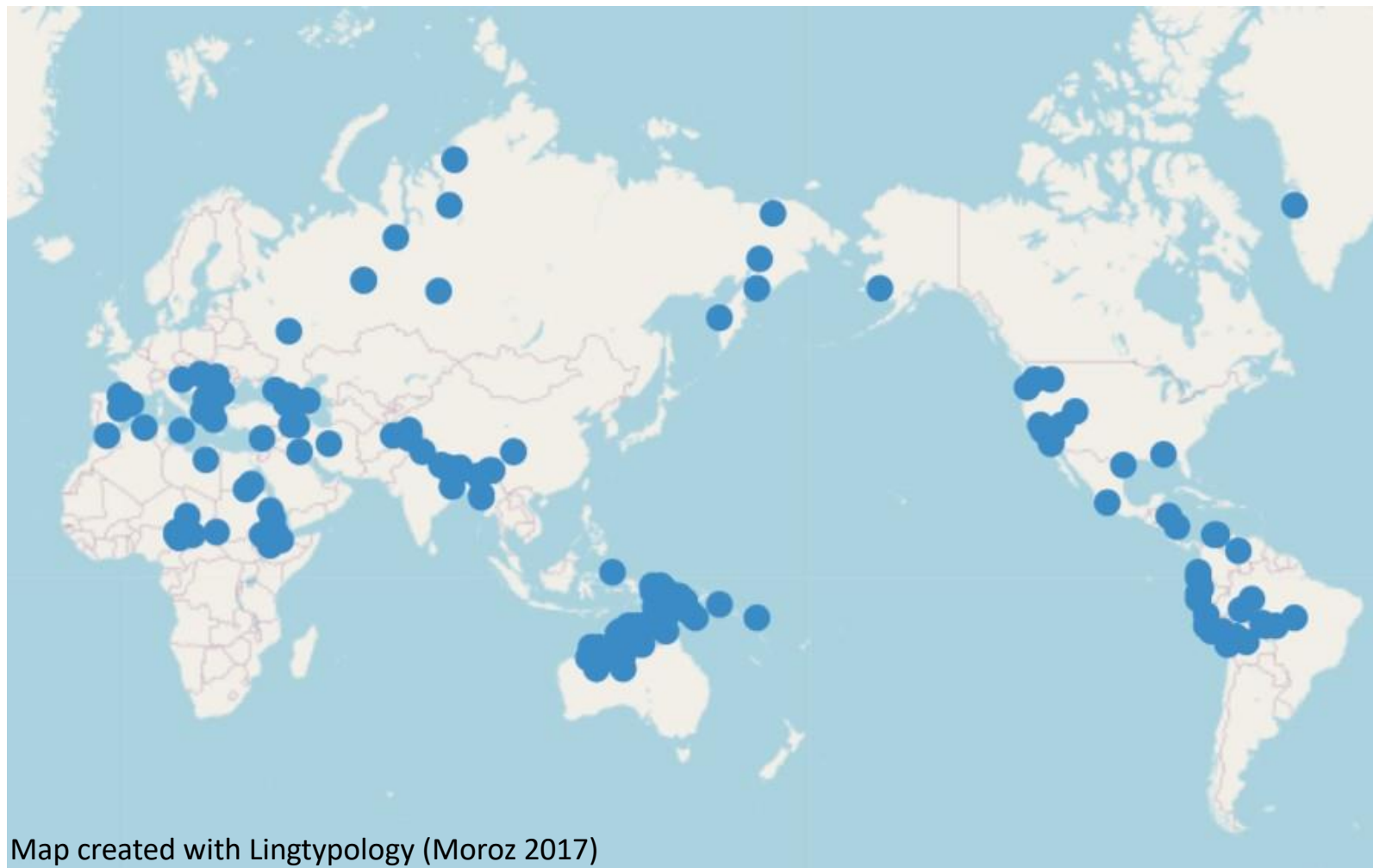
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Sample and distribution



Map created with Lingtypology (Moroz 2017)

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Indexing of obliques is attested in

- 53 languages (28%) of the sample;
- 34 genera (33%), 28 families (39%);
- in all macroareas, with a particularly high concentration in Australia and New Guinea

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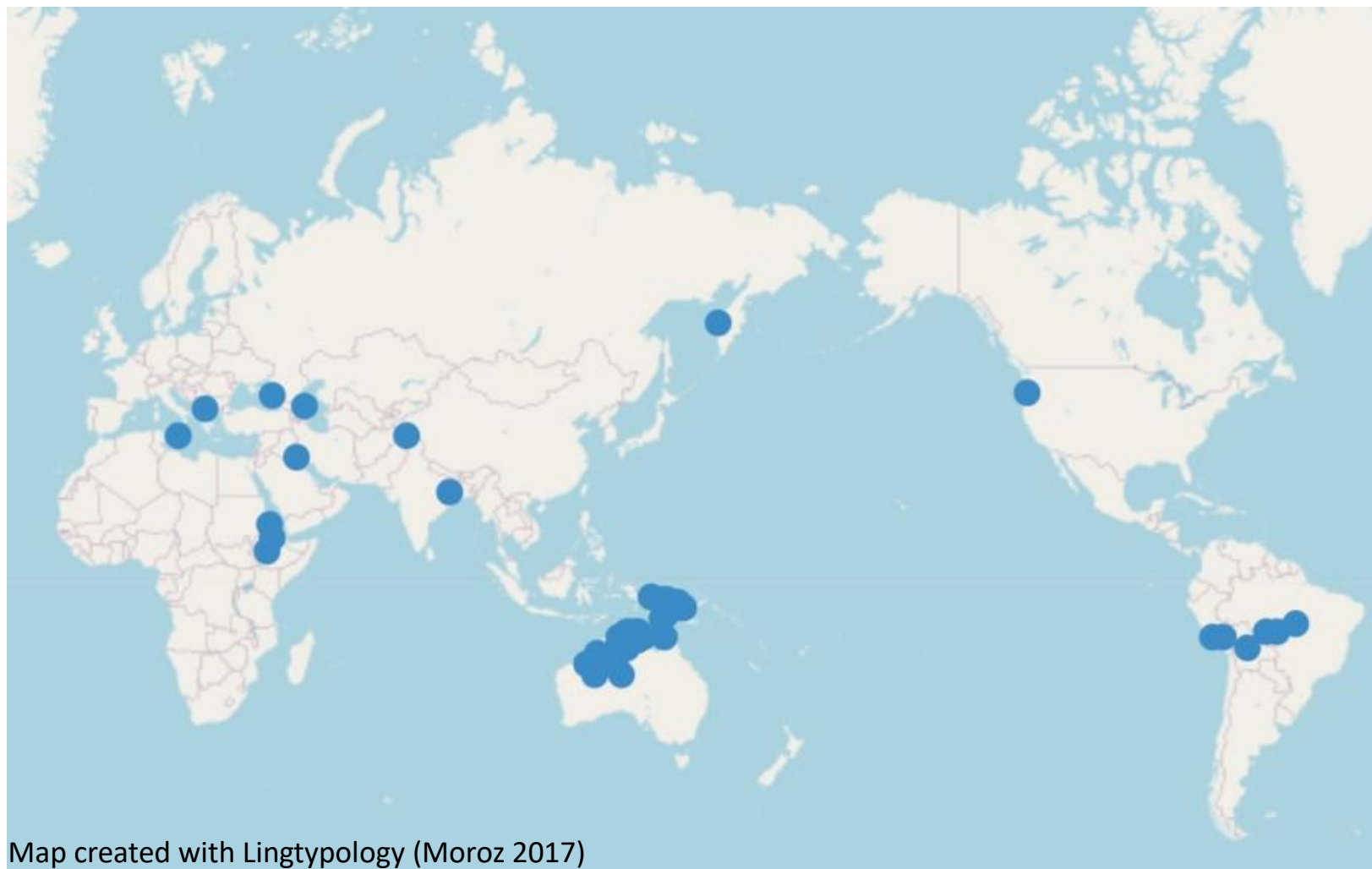
Sample and distribution

area	yes		no	
	languages	genera	languages	genera
Africa	3	1	16	8
Asia	4	4	36	12
Europe	4	4	13	8
Australia	23	13	7	7
Oceania	13	8	32	25
N.America	1	1	15	9
S.America	6	5	15	12

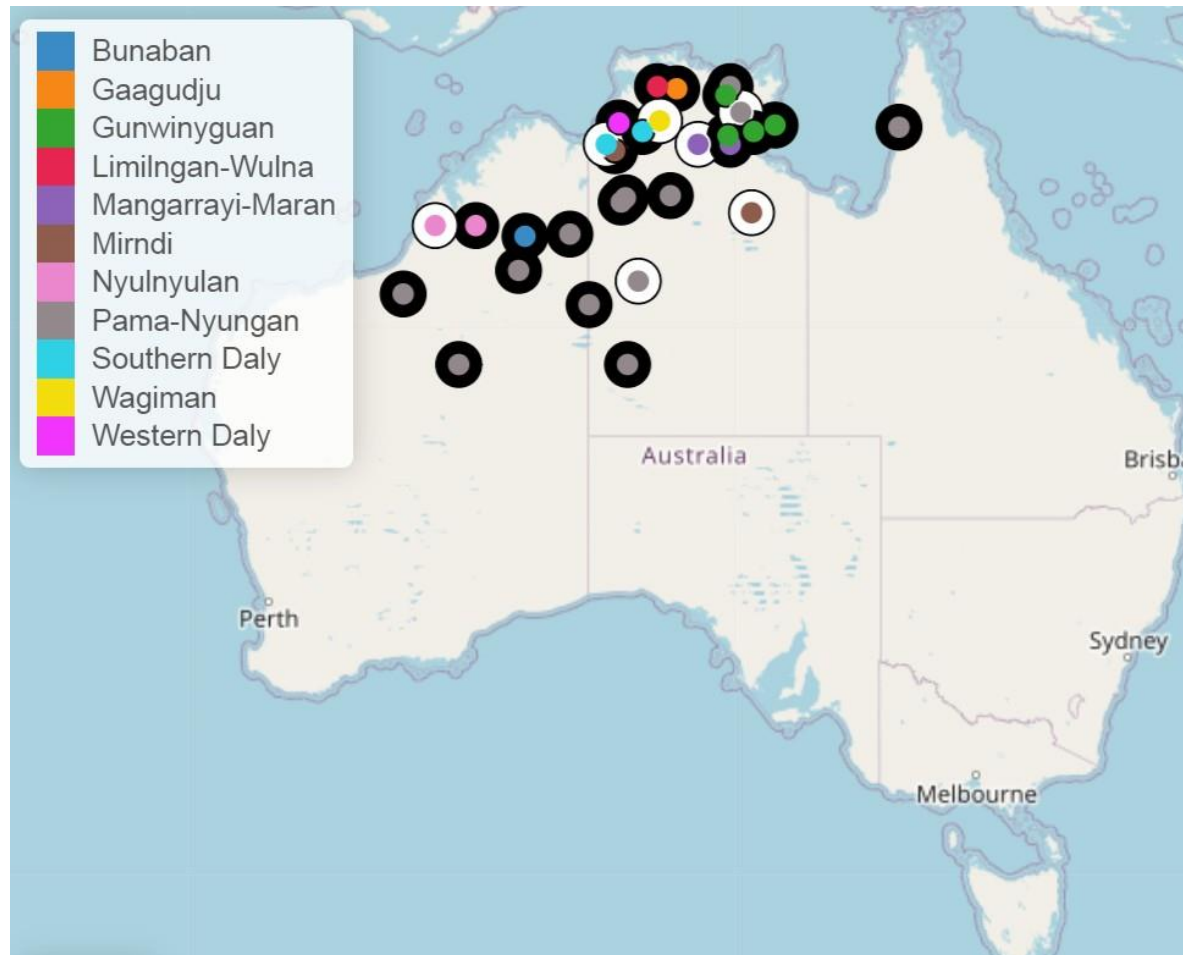
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Gooniyandi

Gaagudju

Anindilyakwa

Ngalakan

Ngangi

Wubuy

Limilngan

Mara

Jaminjung

Nyigina

Bilinarra

Djaru

Djinang

Gurindji

Kuku Nghanhcara

Mudburra

Ngardi

Nyangumarta

Pintupi

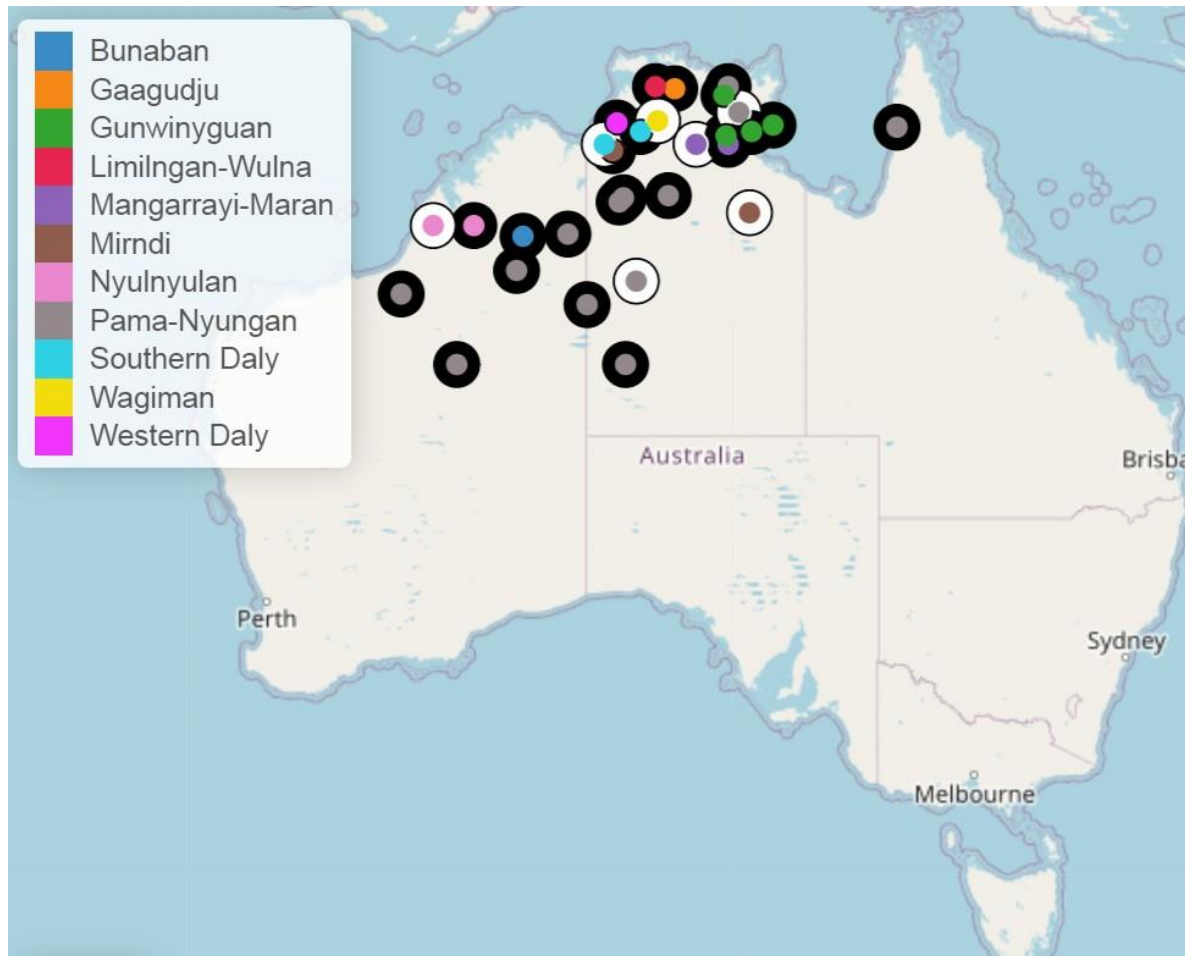
Walmatjarri

Wangkajunga

Ngangityemerri

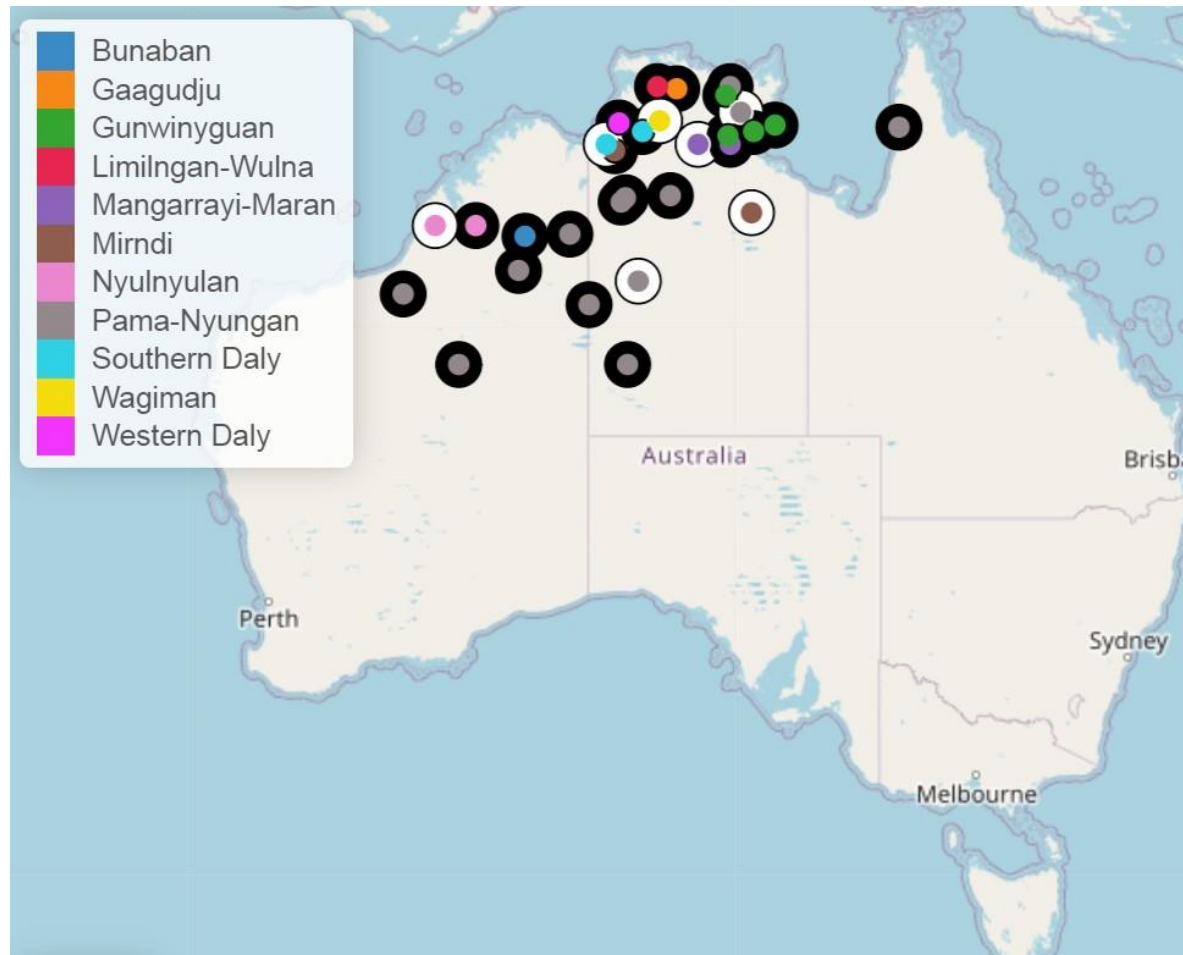
Marithiel

Sample and distribution



A clear areal feature transcending the borders of language families

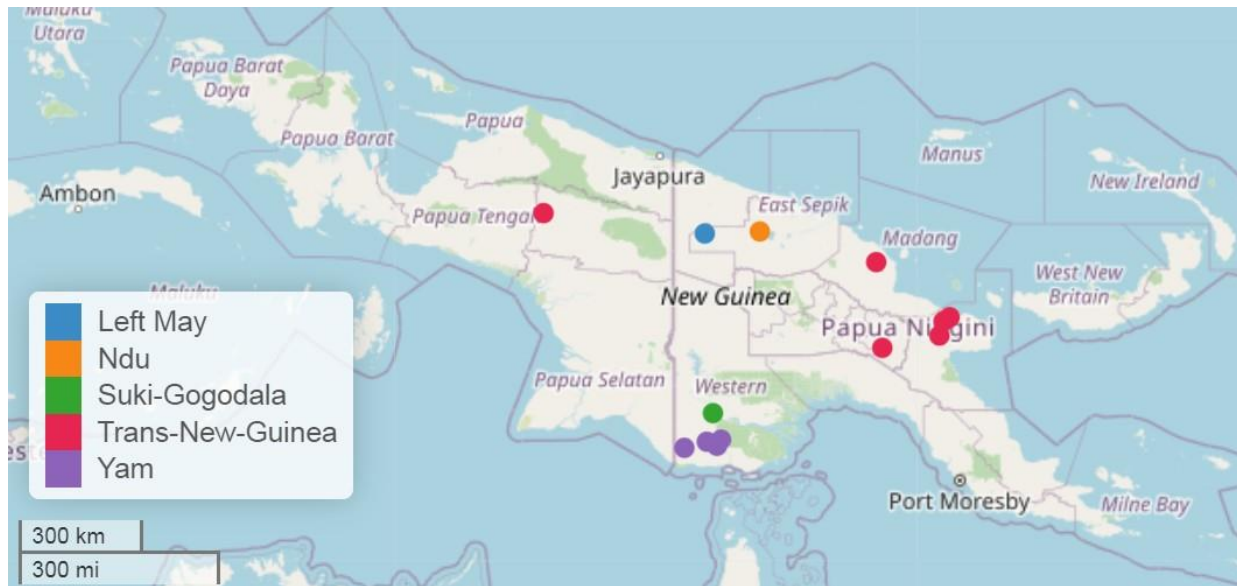
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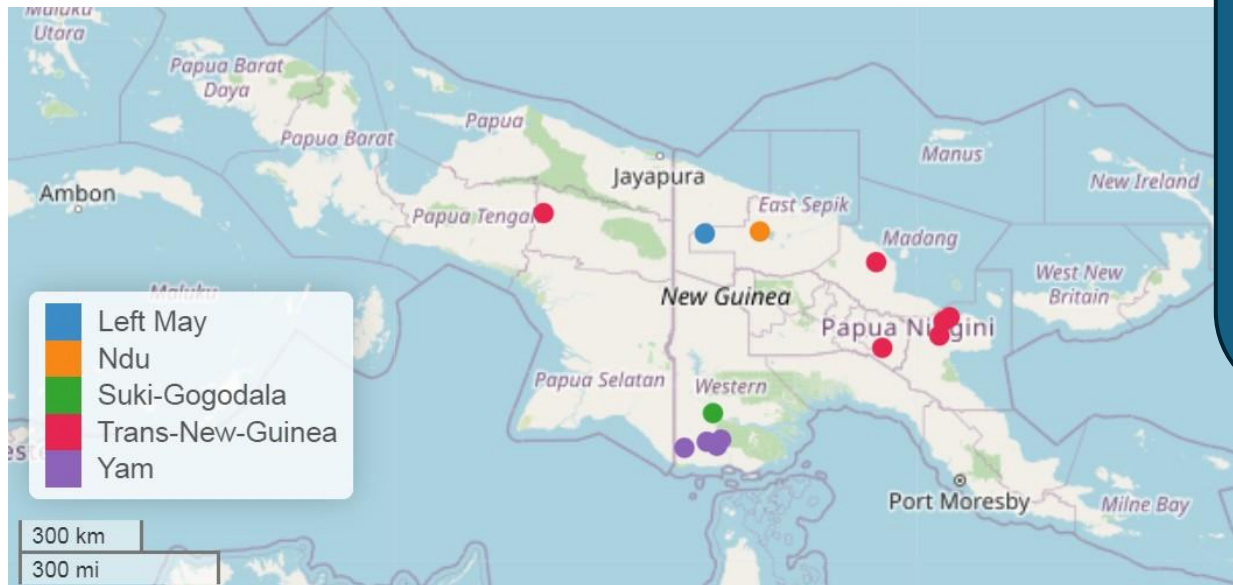
A clear areal feature transcending the borders of language families

Particularly well-attested in the Pama-Nyungan languages of the North(-West), cf. Ennever & Browne 2023

Sample and distribution



Sample and distribution



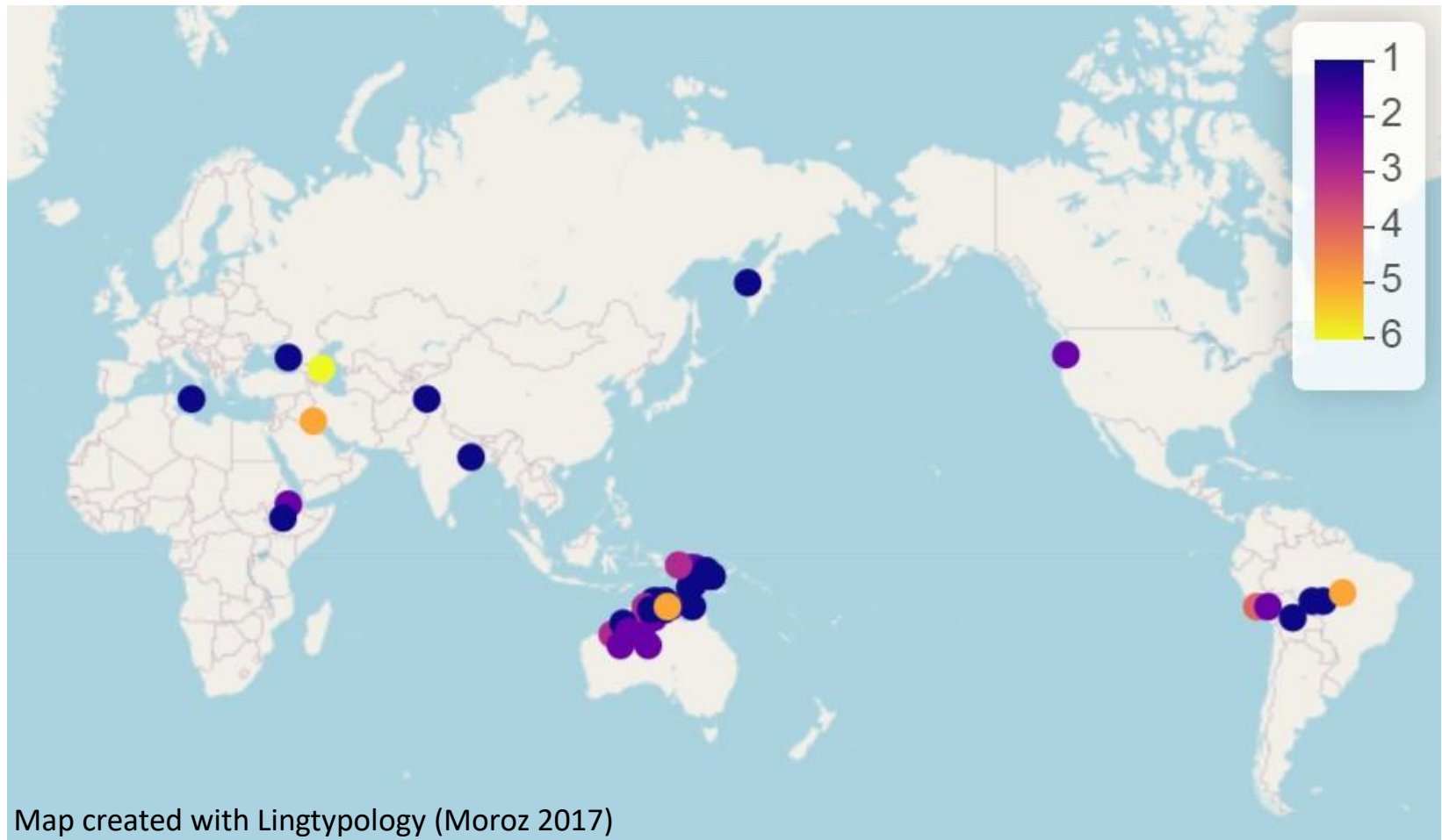
No clear areal patterning in New Guinea, but oblique indexing is attested in different families as well as different branches of the Trans-New-Guinea phylum

Sample and distribution

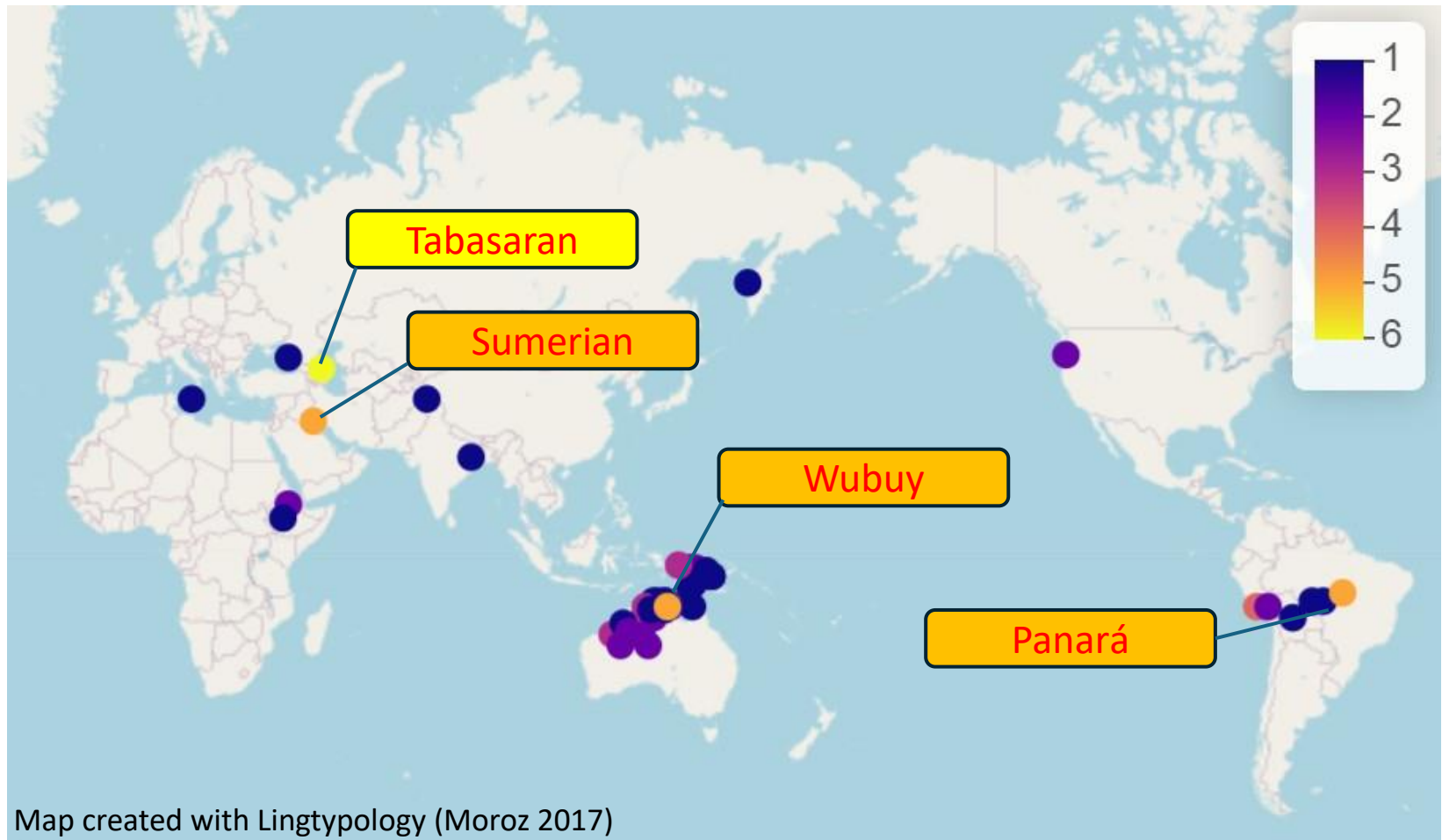
- Number of distinct oblique flagging-types (“cases”) that can be indexed (two unclear cases excluded):

number	languages	genera	example
1	28	23	West Circassian
2	11	7	Amharic
3	6	4	Bilinarra
4	3	3	Ayacucho Quechua
5	3	3	Panará
6 or more	1	1	Tabasaran

Sample and distribution



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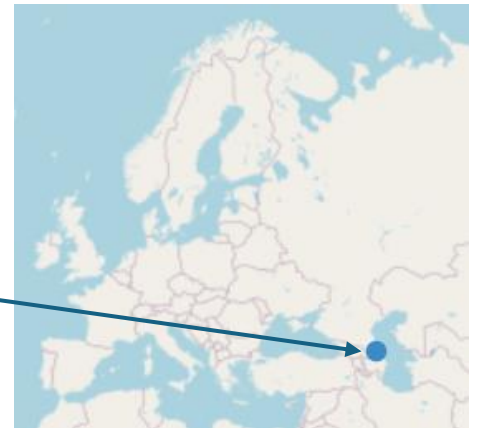
Sample and distribution

- The absolute record:

Tabasaran (Nakh-Daghestanian > Lezgetic), where in principle any of the ca. 40 oblique and spatial cases can be indexed by suffixed pronominals (e.g. Bogomolova 2012, 2018):

- (2) a. *uzu uvu-x-na bu^ɛ-ra=za=vu-x-na.*
1SG 2SG-APUD-LAT come-PRS=1SG.A-2SG-APUD-LAT
'I am going to you.' (Bogomolova 2018: 827)
- b. *baj izu-q^h hit'ik'-nu-zu-q^h.*
boy.ABS 1SG-POST hide-AOR-1SG-POST
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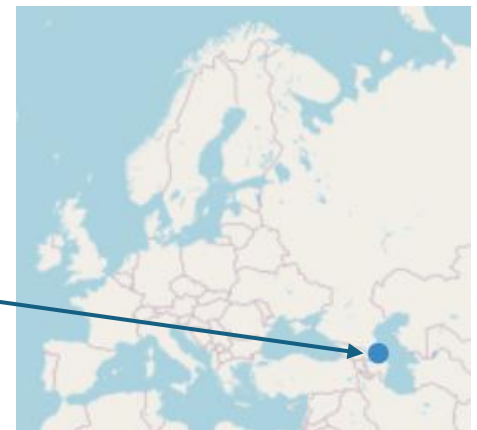


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A – agent, ABS – absolutive, AOR – aorist, APUD – localisation “at”,
LAT – lative, POST – localisation “behind”, PRS – present tense

Sample and distribution

- Indexing (i.e. **double-marking**) of obliques presupposes **indexing** of core arguments, most notably P and R (no exceptions among the languages of the sample).
- This is not surprising, given the overall preference for indexing of core participants.
- However, it is not the case that double-marking of obliques presupposes double-marking of P or R:
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- Not always easy to determine:
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Indexed participants

- beneficiary

Fore (Trans-New-Guinean > Kainantu-Gorokan, Papua New Guinea; Scott 1978: 112)

(3) *na-ba:-ném-pá'-ti* *a-'ta-y-e*
1SG-father-1SG-SG-ALLAT 3SG.O-put-3SG.S-IND
'He puts it there for my father.'

ALLAT – allative, IND – indicative,
O – object, S – subject



Indexed participants

- maleficiary

Panará (Macro-Je > Je, Brasil; Bardagil-Mas 2018: 150):

(4) *kwakriti* *jy=ra=pêê=ty* *inkjẽ* *pêê*
spider.monkey INTR=1SG=MAL=die 1SG MAL
'My spider-monkey died (on me).'

INTR – intransitive, MAL – malefactive



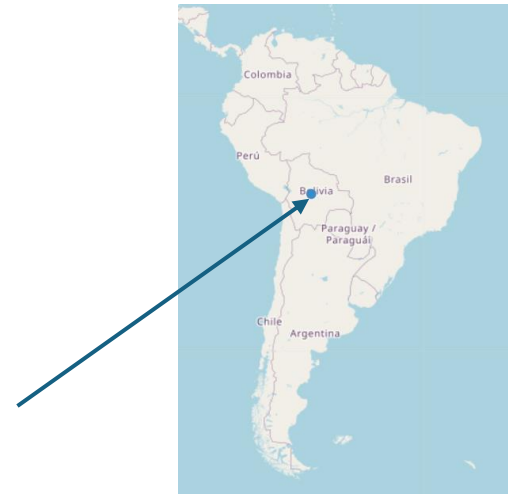
Indexed participants

- comitative

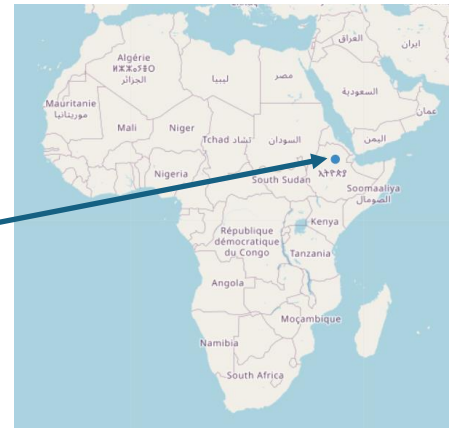
Yurakaré (isolate, Bolivia; van Gijn 2005: 60):

(5) *më-jti* *lëtta-m* *ku-winani-shta-m* *mi-ye=tina*
2SG-LIM one-2SG.S 3SG.AO-walk-FUT-2SG.S 2SG-sister=COM
'You will be the only one that is going to live together
with your sister.'

AO – applicative object, COM – comitative, FUT – future tense,
LIM – limitive, S – subject



Indexed participants



- instrument

Amharic (Afro-Asiatic > Semitic, Ethiopia; Leslau 1995: 430):

(6) *almaz* *b-addisu* *ərsasə-wa* *şaf-äčč-əbb-ät*
Almaz *INS*-new pencil-3SG.F write.PFV-3SG.F.S-*INS*-3SG.O
'Almaz wrote *with her new pencil*.'

F – feminine, INS – instrumental, O – object, PFV – perfective, S – subject

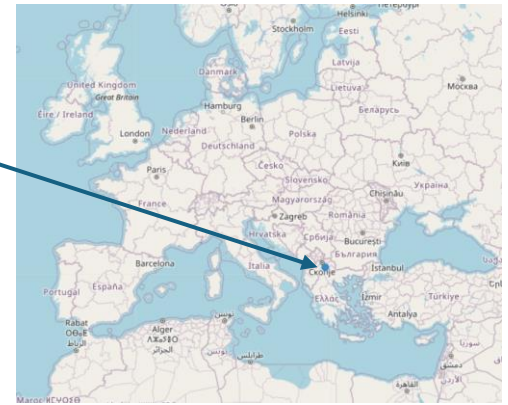
Indexed participants

- spatial goal

Macedonian (Indo-European > Slavic; Lunt 1952: 108):

(7) *Naizlego-a* *gluvc-i* *i* *mu=pojdo-a*
come.out-AOR.3PL.S rat-PL and 3SG.M.IO=go-AOR.3PL.S
kaj *adži* *mačor-ot...*
to Haji cat-DEF
‘The rats came out in crowds and went *to Haji Cat...*’

AOR – aorist, DEF – definite, IO – indirect object, M – masculine



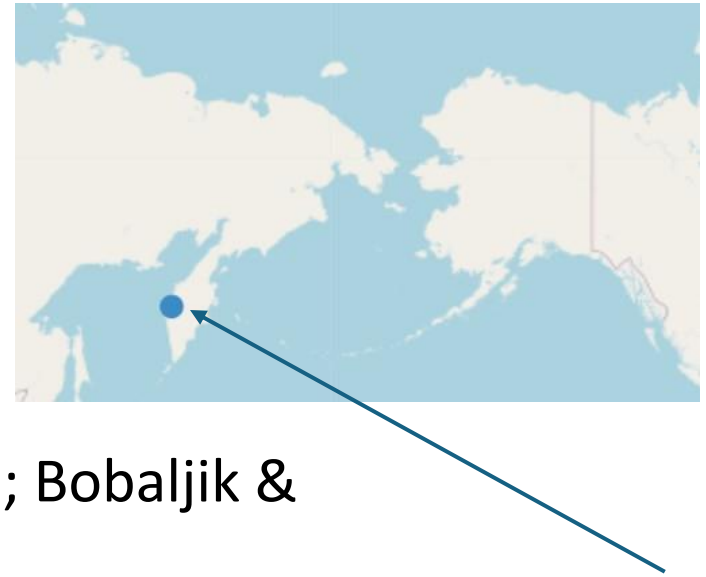
Indexed participants

- spatial location

Itelmen (Chukotka-Kamchatka, Russia; Bobaljik & Wurmbrand 2002: 23)

(8) *nt-čaja-kinen* *ənnə-nk*
1PL.S-drink.tea-3SG.OBL 3SG-LOC
'We had tea at/by him (at his place).'

LOC – locative, OBL – oblique



Indexed participants

- spatial source



Sumerian (isolate, Ancient Near East; Jagersma 2010: 457):

(9) *anše=ta* *udu=ta* *ú.du.l=be*
 donkey=ABL sheep=ABL shepherd=3SG

ʔi-b-ta-n-ru.

PREF-3N.IO-ABL-3SG.A-eject

‘From the donkeys and sheep, he dismissed their shepherds.’

A – agent, ABL – ablative, IO – indirect object, N – neuter,
 PREF – prefix

Indexed participants

- topic of speech

Ayacucho Quechua (Quechuan, Peru;
Parker 1969: 95):

(10) *ñuqa-manta* *rima-wa-n*
1SG-ABL speak-1SG.O-3SG.S
'He talks about me.'



Indexed participants

role	languages	genera
bene/maleficiary	38	23
goal	18	14
location	16	7
source	13	8
comitative	11	7
other	21	14

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That the bene/maleficiary is by a large margin the most frequently indexed oblique relation is unsurprising given its strong correlation with animacy (see further)

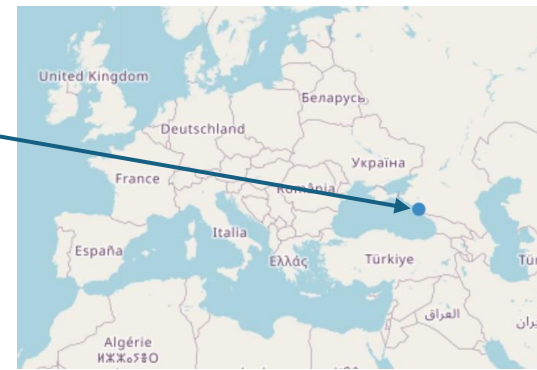
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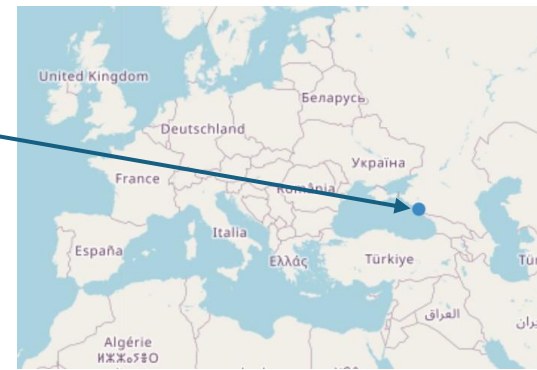
West Circassian (Northwest Caucasian, Russia):

(11) a. *ja allah, se qə-s-fe-ve^w*
PTCL God 1SG CSL-1SG.IO-BEN-forgive/IMP
'Oh God, forgive me.' (Quran 38:35, AdCorp)

b. *se-š' pajə s-fe-w-e-ve.š^we.ž'ə*
1SG-OBL for 1SG.IO-BEN-2SG.A-PRS-preserve
'[When you see beautiful and sweet things,] you
keep (them) for me.' (Lander 2015: 21)

BEN – benefactive, CSL – cislocative, IMP – imperative,
OBL – oblique case, PTCL – particle

Indexed participants



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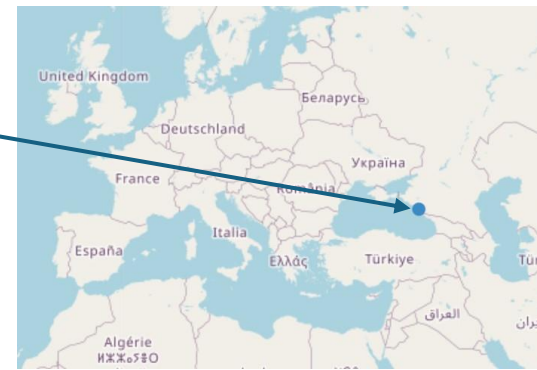
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The default encoding for a pronominal applicative object (if expressed at all) is the unmarked form of the pronoun

BEN – benefactive, CSL – cislocative, IMP – imperative,
OBL – oblique case, PTCL – particle

Indexed participants

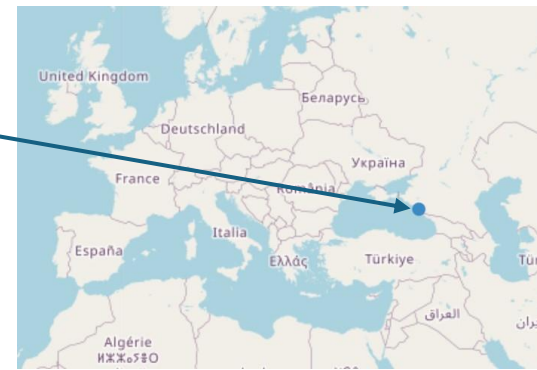


West Circassian (Northwest Caucasian, Russia):

- (11) a. *ja allah, se qə-s-fe-ve^w*
PTCL God 1SG CSL-1SG.IO-BEN-forgive/IMP
'Oh God, forgive me.' (Quran 38:35, AdCorp)
- b. *se-š' pajə s-fe-w-e-ve.ṣ^we.ž'ə*
1SG-OBL for 1SG.IO-BEN-2SG.A-PRS-preserve
'[When you see beautiful and sweet things,] you
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BEN – benefactive, C
 OBL – oblique case, F

Elaborate marking by means of the purposive
 postposition is a rare option admittedly used
 for special emphasis; attested in texts but
 hardly mentioned in descriptions

Roadmap

- What it is about
- Sample and distribution
- Indexed participants
- Role of prominence hierarchies
- Possible diachronic origins
- Discussion

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Role of prominence hierarchies

- Indexing of obliques is cross-linguistically sensitive to the same **prominence hierarchies** of person, animacy, referentiality and topicality as the better-known phenomena of **differential object flagging** and **differential object indexing**.

(12) a. 1, 2 person > 3 person
b. human > non-human animate > inanimate
c. definite > specific indefinite > non-specific
d. topic > focus

Silverstein 1976, Aissen 2003, lemmolo 2011, Haig 2018, Just 2022 etc.

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Role of prominence hierarchies

- person

Ayacucho Quechua (Quechuan, Peru; Parker 1969: 71, 42):
indexing only for 1st and 2nd person objects

- (13) a. *ñuqa-paq rima-pu-wa-n-qa*
1SG-BEN speak-BEN-1SG-3SG-NPRS
'He will speak for me (in my stead or in my behalf).'
- b. *amigu-m-paq=mi rima-pu-n-qa*
friend-3SG-BEN=ASS speak-BEN-3SG.S-NPRS
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Role of prominence hierarchies

- animacy

Nyangumarta (Pama-Nyungan > Desert Nyungic;
Sharp 2004: 333):

(27) a. *Partany karnti-nyi mungka-nga.*
child climb-NFUT tree-LOC
'The child climbed the tree.'

b. *Karnti-nyi-li yawarta-nga.*
climb-NFUT-3SG.LOC horse-LOC
'He climbed onto the horse.'



Role of prominence hierarchies

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LOC – locative case, NFUT – non-future



Role of prominence hierarchies

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LOC – locative case, NFUT – non-future,
OBL – oblique index set



Role of prominence hierarchies

- topicality

Manambu (Ndu, Papua New Guinea; Aikhenvald 2008: 62, 365):

- (15) a. *wun a-də yab-a:r yi-tua-d*
1SG DIST-SG.M road-ALLAT go-1SG.S-3SG.M.B
'I went towards this road (that we are talking about).'
- b. *təp-a:r yi-di*
village-ALLAT go-3PL.B
'(having done so-and-so) they went to their village.'

ALLAT – allative, B – basic index set,
DIST – distal demonstrative,
M – masculine, S – subject index set



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Role of prominence hierarchies

- Unfortunately, most descriptions lack a clear let alone comprehensive account of the relevant factors.

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Possible diachronic origins

- It is possible to propose a number of tentative diachronic pathways of emergence of oblique indexing:
 - 1) extension of object (P/R) indexes to obliques, sometimes mediated by applicativisation (e.g. Macedonian, Circassian, Wubuy, Quechuan);
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Possible diachronic origins



- Extension of P/R indexes to obliques mediated by applicatives

Wubuy (aka Nunggubuyu, Gunwinyguan, Australia)

(16) *ngarra-maṇi-nyung* *ngunu-yi-yarrbu-mana*

F-woman-HUM.SG

3FSG>3MSG-face-wash-PRS

na-wulmurr-inyung

ngarr-ibiyung-yungguyung

M-young.man-HUM.SG

F-mother.PROP3-PURP

‘The woman washes the boy on the face for his mother.’

(Horrack 2018: 153)

HUM – human, PROP – proprietive, PURP – purposive

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The beneficiary can be
expressed by an adjunct in the
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Possible diachronic origins



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(17) *ngarra-maṇi-nyung* *nguna-a-jaalibu-mana*
F-woman-HUM.SG 3FSG>3MSG-APPL-cough-PRS

na-doctor-wuy / *na-doctor-yungguyung*

M-doctor-DAT / M-doctor-PURP

‘The woman coughs **for the doctor**.’ (Horrack 2018: 142)

APPL – applicative, DAT – dative, HUM – human, PURP – purposive

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In the applicative construction, the beneficiary is indexed and is either flagged by the **dative case** or, PURP – purposive optionally retains the **purposive case**

Possible diachronic origins



- Retention of flagging distinctions disambiguates semantic roles

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(18) a. *anaani* *ngana-a-jura-ngi* *ana-mamanunggu*
 this 1>2PL-APPL-take-PC N.TOP-good

ana-lhaawu *nugurri-wuy*
 N.TOP-story 2PL-ALLAT

 ‘We were taking these good news **to you**.’

b. *nguna-a-gamaji* *na-walyi-nyung-gala*
 3FSG>3MSG-APPL-thieve/PC M-man-HUM.SG-ABL

 ‘She was thieving from the man.’

ABL – ablative, ALLAT – allative, N – neuter, PC – past continuous,
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- Doubling of discourse-prominent obliques with pronouns in oblique cases

Tabasaran (Nakh-Daghestanian > Lezgif; Russia) presents a clear case of a relatively recent development of this type (Harris 1994; Bogomolova 2012, 2018):

- person agreement only with 1st and 2nd person arguments;
- obligatory for S/A, optional for other participants;
- agreement suffixes/enclitics are clearly related to various case forms of independent pronouns.

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- agreement suffixes/enclitics are transparently related to various case forms of independent pronouns.

Possible diachronic origins

Tabasaran (Nakh-Daghestanian > Lezgetic; Russia, Bogomolova 2018: 825): partial paradigm of free pronouns and person indexes

case	free 2Sg	verbal index 2Sg
dative	<i>uvu-z</i>	<i>=vu-z</i>
apud(essive)	<i>uvu-x</i>	<i>=vu-x</i>
post(essive)	<i>uvu-q</i>	<i>=vu-q</i>
super(ess)	<i>uvu-ʔin</i>	<i>=vu-ʔin</i>
apudlative	<i>uvu-x-na</i>	<i>=vu-x-na</i>

Possible diachronic origins

- The pronominal doubling scenario is also applicable for some Australian languages (cf. Dixon 2004: 379-93; Mushin & Simpson 2008), however, in many of them free and bound pronouns are formally quite divergent.

Possible diachronic origins

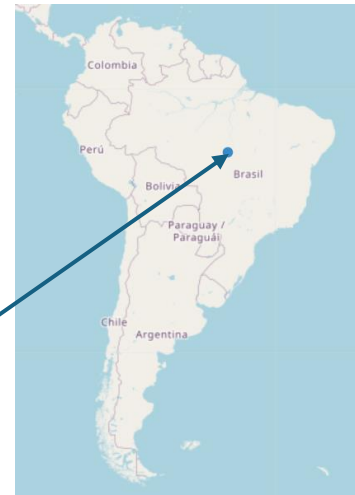
- Incorporation of adpositions with indexes as “applicative complexes”.
- In fact is difficult (if at all possible) to distinguish from pronominal doubling.

Possible diachronic origins

- Incorporation of adpositions with indexes as “applicative complexes”.
- In fact, a combination of the two other scenarios.

Possible diachronic origins

Panará (Macro-Je > Je, Brasil; Bardagil-Mas 2018: 155):



(19) *ka ka=ti=ra=kõõ=a=kwy tepi suu inkjẽ kõõ*
2SG IRR=NSPK=1SG=COM=ADRE=go fish PURP 1SG COM
'You'll go fishing with me.'

ADRE – addressee, COM – comitative, IRR – irrealis, NSPK – non-speaker,
PURP – purposive

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The stem of the free pronoun has nothing in common with the verbal pronominal index

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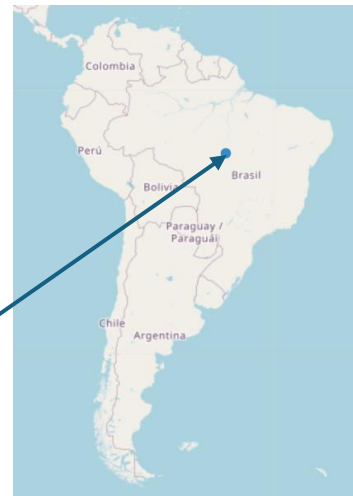
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The set of verbal indexes appearing before incorporated postpositions is identical to the S/P indexes

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Discussion

- Indexing of obliquely-marked participants is an infrequent phenomenon, but it is attested in a considerable number of language families all over the world.
- Highly systematic in some languages (e.g. Pama-Nyungan, Manambu), clearly marginal in others (e.g. West Circassian, Yurakaré).
- Oblique indexing seems to be found across groups of closely related languages (e.g. Ngumpin-Yapa subgroup of Pama-Nyungan, Southern Quechua or Ethiosemitic) as well as to undergo areal spread (e.g. Northern Australia).

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- Like other types of indexing, oblique indexing tends to be systematically related to prominence hierarchies, being in most cases restricted to highly animate participants.
- This correlates well with the range of semantic roles particularly prone to oblique indexing, i.e. bene/maleficiary, animate location and comitative.

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Discussion

- Oblique indexing can arise through distinct and cross-linguistically recurrent diachronic pathways, e.g.:
 - grammaticalisation of pronouns in oblique cases in constructions involving “doubling”;
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Discussion

- The phenomenon, which has been largely neglected by typologists, clearly deserves further typological and diachronic investigation.

Thank you for your attention!
Danke für Ihre Aufmerksamkeit!



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Appendix

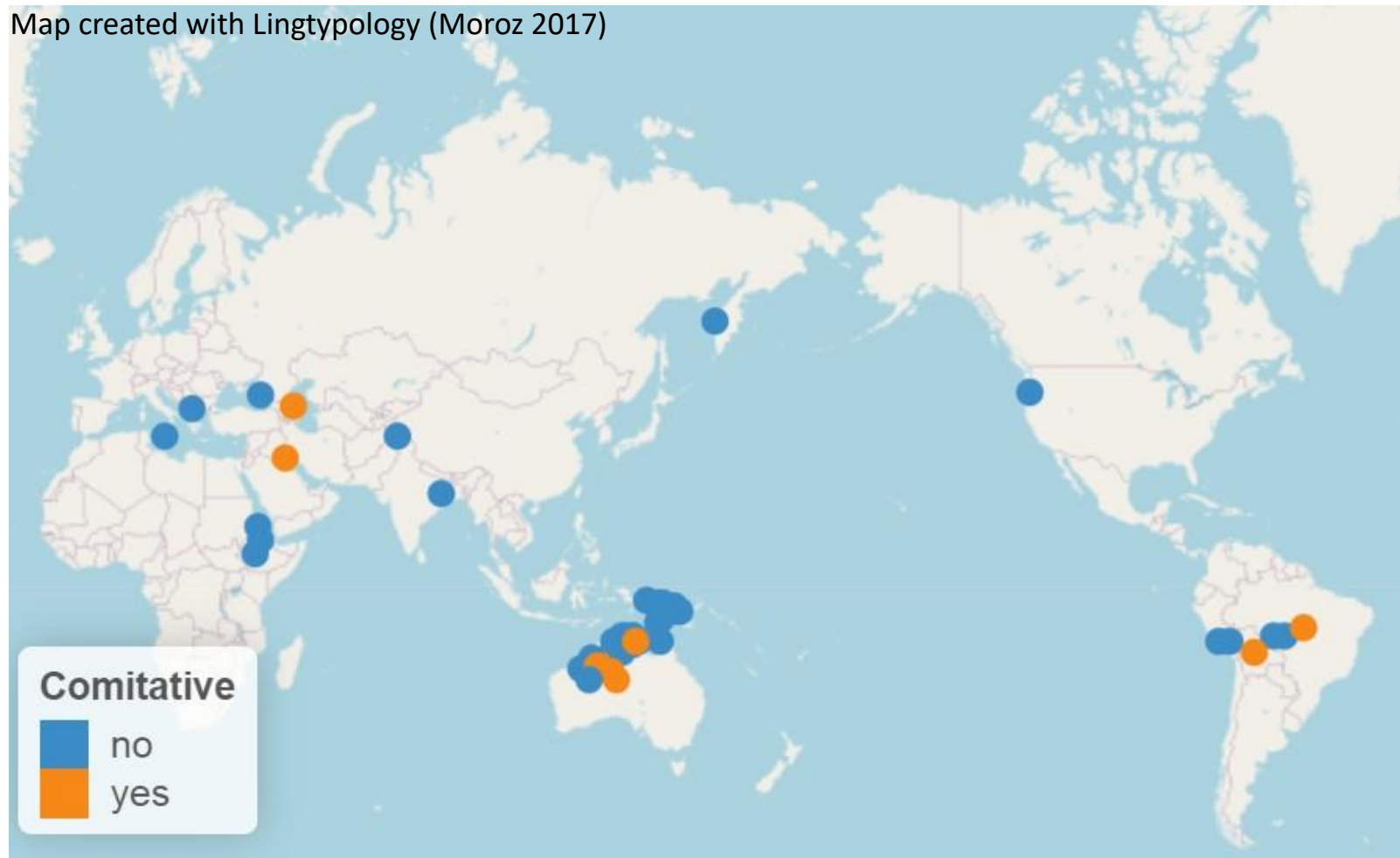
Indexed participants

Map created with Lingtypology (Moroz 2017)



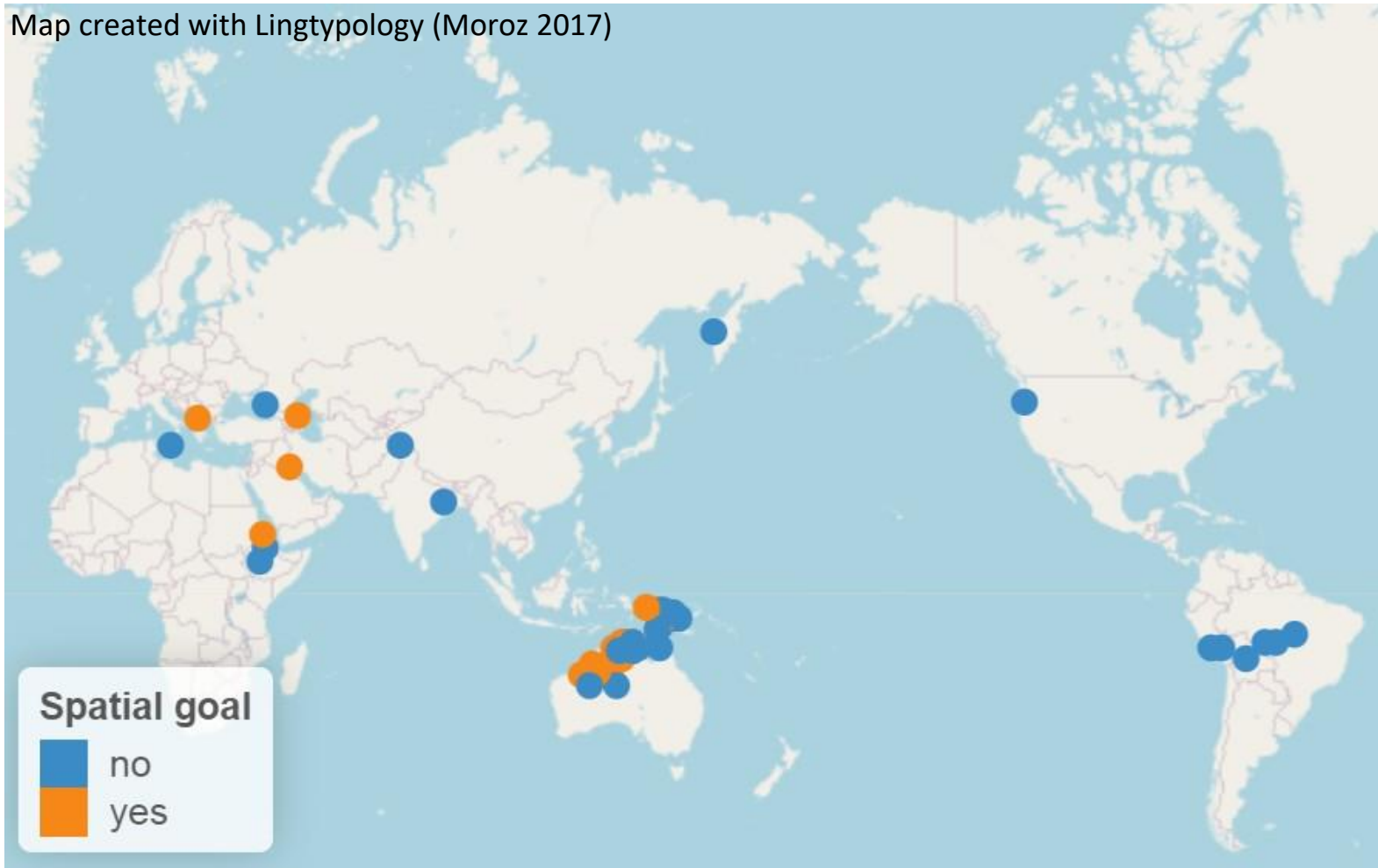
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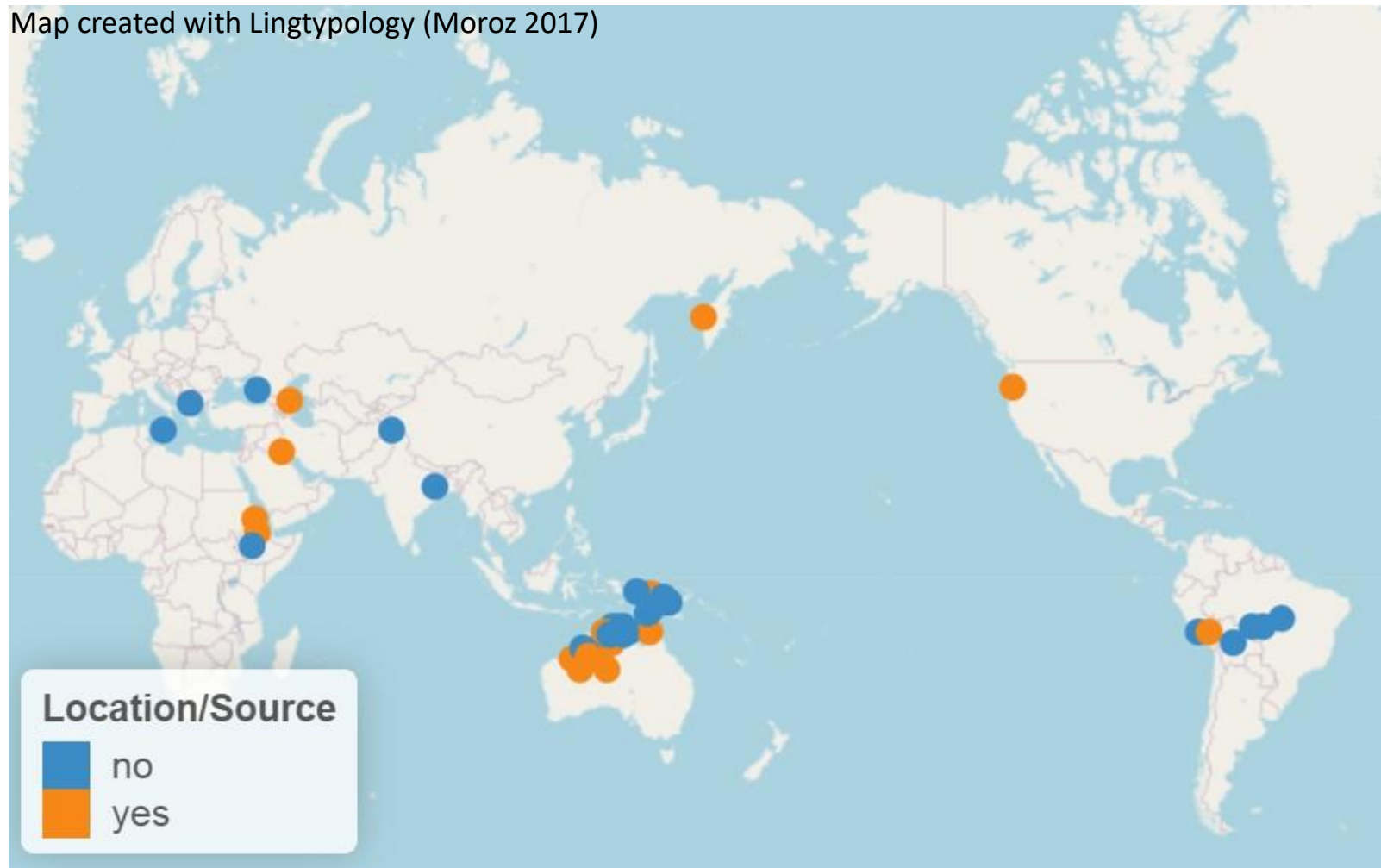
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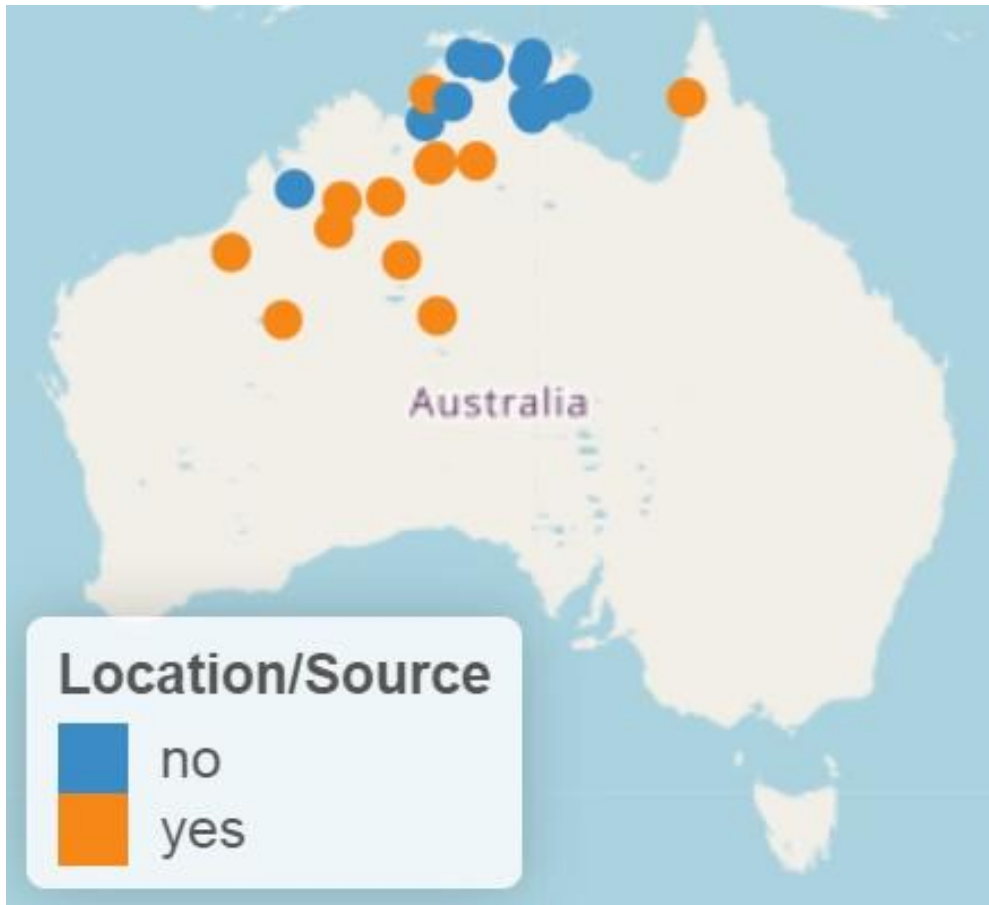


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Indexed participants



Indexing of spatial roles is a salient feature of the Northern Australian languages

Role of prominence hierarchies

- person

Tabasaran (Nakh-Daghestanian > Lezgetic; Russia, Bogomolova 2012, 2018): only 1st and 2nd persons, and only if “the non-subject participant ... makes a significant contribution to the situation”

(26) a. *rasul uzu-x-na* *ba-f-nu(=zu-x-na)*
Rasul 1SG-APUD-LAT PFV-come-PST(=1SG-APUD-LAT)
‘Rasul came to me.’ (Bogomolova 2018: 826)

b. *žarv* *χazʹajin.ži-x-na*
run[IMP] landlord-APUD-LAT
‘Run to the landlord!’ (Bogomolova 2012: 116)

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Role of prominence hierarchies

- animacy and humanness

In the Australian languages, indexing of oblique participants is largely restricted to animate or human referents (Ennever & Browne 2023: 6).

Possible diachronic origins

- Extension of P/R-markers to obliques

Nama (Yam > Nambu, Papua New Guinea; Siegel 2023)

(29) a. *ghakr-am mères yè-frango-t-e*
boy-ERG girl 3SG.ABS-leave-IPFV-2|3SG.A
'The boy is leaving the girl.' (p. 30)

b. *yèmo náifè y-a-ram Mawai-e*
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'He just gave Mawai the knife.' (p. 57)

c. *ágha-f-e-t ne*
dog-PL-DAT-ALLAT gut
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ABS – absolutive, APP – applicative, C

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