

From associated motion to applicative marker: A cross-linguistic study

Timofey Mukhin

16th International Conference of the Association for Linguistic Typology (ALT-2026)
Lumière University of Lyon, Lyon, France, 2026 July 1

Outline

1. Introduction
2. Sample
3. Co-expression of AM and applicative functions is widespread
4. Typology of markers with AM and applicative uses
5. Diachronic implications
6. Conclusion

1. Introduction

What are applicatives?

(1) San Lucas Quiaviní Zapotec (Zapotecan; Munro 2000: 285–286 cited in Zúñiga & Creissels 2024: 4)

a. *B-ìi'lly Gye'eihlly cēhnn Jwaany.*
PFV-sing M. with J.

Base Construction = BC

b. *B-ìi'lly-nèe Gye'eihlly Jwaany.*
PFV-sing-APPL M. J.
'Mike sang with John.'

Applicative Construction = AC

Applicatives: morphological verb markers that increase the valency of verbs (= the number of arguments), by allowing “the coding of a thematically peripheral argument or adjunct as a core-object argument” (Peterson 2007: 1).

Broader definition from Zúñiga & Creissels (2024: 4): introduced argument (applied phrase) need not be a core argument

Previously established sources

Traditionally two independent (direct) sources for applicatives: **adpositions** and **verbs** (Peterson 2007:125)

New sources:

+ **nouns** (as direct source) (Nordlinger 2019: 423; Arkadiev 2021: 50)

+ classifiers (Rose 2019)

+ spatial verb morphology

(e.g. Pakendorf & Stoyanova 2021, Payne 2021, Van linden 2022)

Associated Motion

AM: a verbal grammatical category, whose function is to associate different kinds of translational motion to a (generally non-motion) verb event (Guillaume & Koch 2021: 3)

(2) Japanese (isolate; Lamarre et al. (2022: 82) cited in Guillaume (forthcoming: 9, 18))

a. *koohi=o non-de-ki-ta.*

coffee=OBJ drink-CVB-**VENT**-PST

‘I drank a coffee **before coming**.’

b. **gakkoo=ni koohi=o non-de-ki-ta.*

school=to coffee=OBJ drink-CVB-**VENT**-PST

*‘I drank a coffee **before coming to school**.’

→ non-applicative AM

(3) Bystraja Even (Tungusic; Pakendorf & Stoyanova 2021: 857)

nan ga-sči-na-ri-n akan-taki-n asatkam

and take-CONAT-**AM**-PST-3SG *father-ALL-POSS.3SG* girl.ACC

‘And he **went to her father to** ask for (lit. take) the girl (in marriage).’

→ Expressing arguments of AM (e.g. goal), as in Tungusic, **is usually not allowed** (Guillaume & Koch 2021: 25)

Research questions

RQ1: *Is the co-expression of applicative and AM functions precluded by the type of AM involved or by the areal/genealogical affiliation of the language?*

RQ2: *What are the main types of markers with AM and applicative uses? How do these types differ in their applicative uses?*

→ Some parameters of variation:

1. status of the base phrase (*optional* vs *obligatory* applicatives)
2. syntactic status of the applied phrase (*P-*, *D-*, *X-*applicatives)
3. semantic role of the applied phrase (*spatial* vs *non-spatial* applied phrases)

RQ3: *What diachronic implications can be drawn from the observed synchronic variation?*

2. Sample

Convenience sample

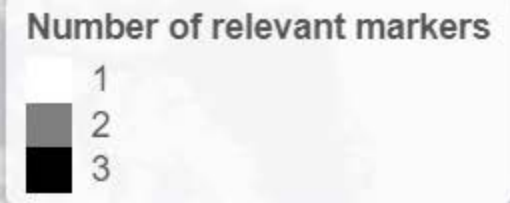
24 languages (22 genera, 17 families)

= only languages with **relevant markers**: 33 markers

Macroarea	Family	Language	Markers
South America	Arawakan	<i>Paunaka</i>	1
	Guaycuruan	<i>Pilagá, Toba</i>	2, 1
	Enlhet-Enenlhet	<i>Enxet Sur</i>	1
	Mataguayo	<i>Nivaclé</i>	2
	Tupi-Guarani	<i>Guajá</i>	1
	Witotoan	<i>Bora, Huitoto (Murui)</i>	3, 1
North America	Chinantec	<i>Chinantec (Sochiapan)</i>	1
	Iroquoian	<i>Cayuga</i>	1
	Uto-Aztecan	<i>Cupeño, Tarahumara (Central)</i>	2, 1
Eurasia	Chukotko-Kamchatkan	<i>Chukchi</i>	1
	Semitic	<i>†Old Assyrian</i>	1
	Tungusic	<i>Even, Solon</i>	1, 1
SE Asia&Oc.	Pahoturi River	<i>Ende</i>	1
	Sino-Tibetan	<i>Ghale</i>	1
	Tibeto-Burman	<i>Lai, Mikir</i>	1, 2
Austr.&NG	Pama-Nyungan	<i>Kaytej, Mudburra</i>	2, 2
Africa	Nilotic	<i>Maasai, Kupsapiiny</i>	2, 1

3. Co-expression of AM and applicative functions is widespread

Distribution of languages with relevant markers



→ Markers with AM and applicative uses: found across **all macroareas** in **genealogically diverse** languages

AM meanings involved

Markers with AM and applicative uses: **no limitations** found, but skewed distributions in terms of (cf. Guillaume & Koch 2021: 9, 12):

1. Temporal relation between events:

prior > concurrent > subsequent

2. Direction:

itive or ventive > reversive, andative (unoriented), adlocative (arrive), LEAVE

3. Argument role of the moving figure:

subject > non-subject > subject & non-subject

(4) Pilagá (Guaycuruan; Vidal & Payne 2021: 471)

n-oye-ta-ge *so'* *la-t'e*

3.SBJ.P-cry-PRG-ITV CLF:far POSS-mother

'He/she was crying (**because**) *her mother* (**had**) **departed**'.

→ prior itive
non-subject AM

4. Typology of markers with AM and applicative uses

Three-way typology

Exponence: the degree of fusion between functions within a single marker (Bickel & Nichols 2007: 188)

(5) Huitoto (Witotoan; Wojtylak 2020: 344)

AC

Alexis jo-fo-mona *Fransiska=di-no-moloc gui-**zaibi**-t-epred.*

Alexis house-CLF-ABL *Francisca=at-CLF-LOC* *eat-**VENT**-LK-3*

‘**From** the house of Alexis (she) **came to** eat at Francisca’s.’

→ Cumulative use

(6) Nivacle (Mataguayo; Fabre 2013: 11, 13; Campbell et al. 2020: 407)

a. *j-ovalh=**c’oya***

1A(>3P)-watch=**AM**

‘I watch(ed), waiting for him **to come**.’

c. *lha Esperanza ni-pitej=a.*

F Esperanza NEG-be.tall=NEG

‘Esperanza is short.’ (lit. ‘not tall’)

BC

AC

b. *a-pitej-**yi**=**c’oya**.*

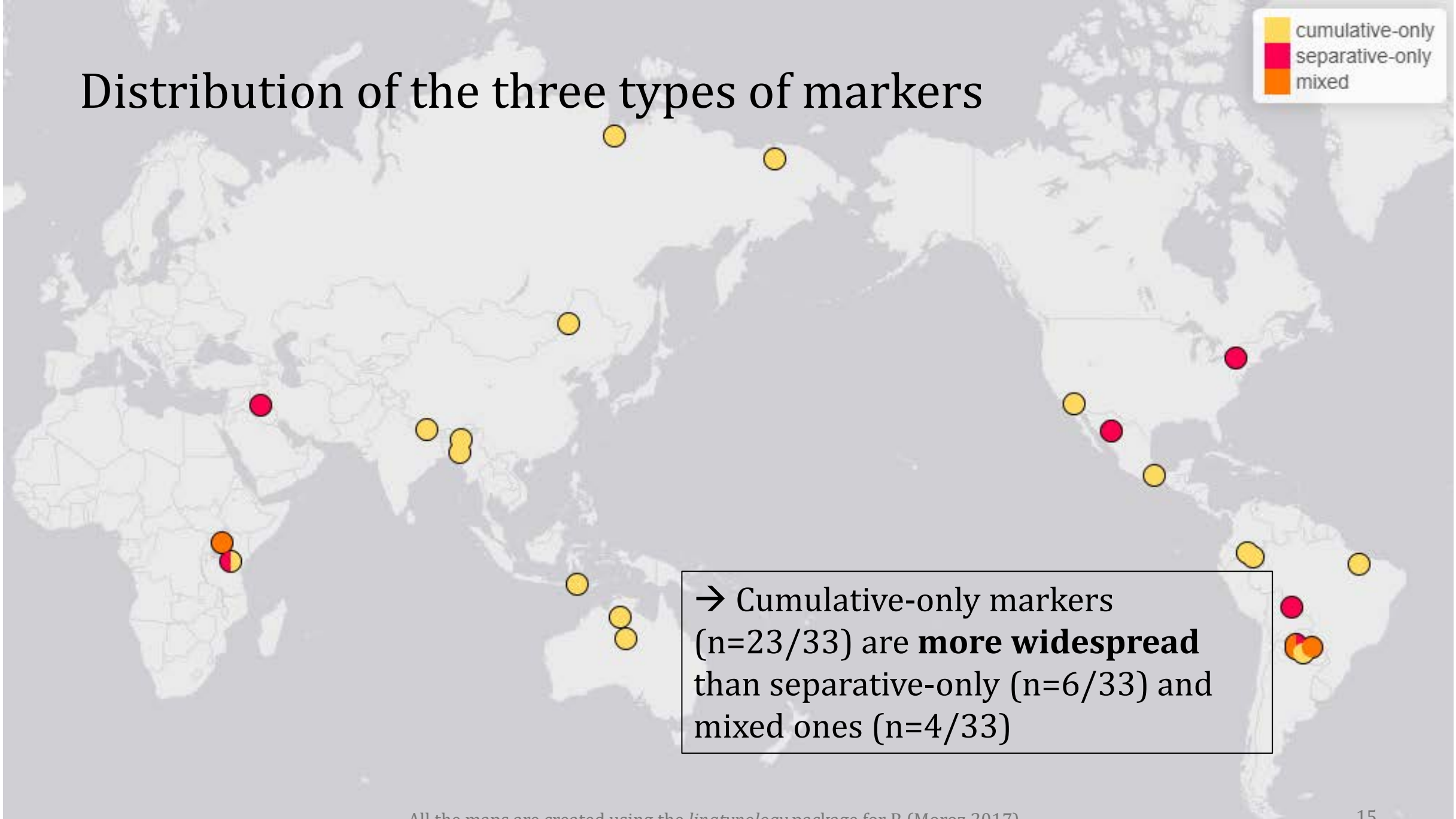
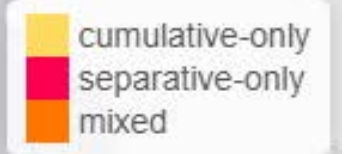
2s-be.tall-**1**=**AM**

‘You are taller **than** me.’

→ Separative use

→ Three types of markers: **cumulative-only** markers (as in (5)), **separative-only** markers (as in (6)) and **mixed markers** (both separative and cumulative uses)

Distribution of the three types of markers



Cumulative-only markers in applicative uses

- AC (7=5) Huitoto (Witotoan; Wojtylak 2020: 344)
*Alexis jo-fo-mona Fransiska=di-no-moloc gui-**zaibi**-t-epred.*
*Alexis house-CLF-ABL Francisca=at-CLF-LOC eat-**VENT**-LK-3*
'**From** the house of Alexis (she) **came to** eat at Francisca's.'

→ Most frequently
obligatory spatial X-
applicatives

- AC (8=4) Pilagá (Guaycuruan; Vidal & Payne 2021: 471)
*n-oye-ta-**ge** so' la-t'e*
*3.SBJ.P-cry-PRG-**ITV** CLF:far POSS-mother*
'He/she was crying (**because**) her mother (**had**) **departed**'.

Rarely:
→ non-spatial
→ P- (or D-)
Never optional

Separative-only markers in applicative uses

(9=6) Nivacle (Mataguayo; Fabre 2013: 13; Campbell et al. 2020: 407)

AC

a. *a-pitej-yi=c'oya.*

2S-be.tall-1=AM

'You are taller **er than me**.'

BC

b. *lha Esperanza ni-pitej=a.*

F Esperanza NEG-be.tall=NEG

'Esperanza is short.' (lit. 'not tall')

→ Most frequently
obligatory non-
spatial P-
applicatives

(10) Paunaka (Arawakan; Terhart 2024: 394-395)

AC

a. *kuina Jose ti-yunu-pu uneku.*

NEG José 3-go-DLOC town

'José isn't here, he went **to town**.'

c. *nÿ-nekupu-bi.*

1SG-see.coming-2SG

'I see you **coming**.'

BC

b. *peropi-yunu pi-sane-yae?*

but 2SG-go 2SG-field-LOC

'But did you go to **your field**?'

Rarely:
→ spatial
→ optional
Never X- (or D-)

! Unclear how persistent the “tendencies” are due to small number of markers

Mixed markers in applicative uses

(11) Enxet Sur (Enlhet-Enenlhet; Elliott 2021: 564, 563, 541, 547)

AC

a. *ka-xchahag-w-ok=sa'* *xép.*
F.IRR-north.wind-**ARR**-NMLZ=FUT **2SG.M**
lit. 'Wind will blow **against** **you** **on arrival**.'

b. *ek-magkaxén-wa-kx-eyk=axta yegmen.*
1SG-request-**ARR**-DUP-DECL=PST water
'I asked for water **when I got back**.'

AC

c. *e-tyeg-wak-t-eyk ko'o meteymog.*
1SG.P-fall-**ARR**-CIS-DECL **1SG** stone
'A rock fell **on** **me**.'

BC

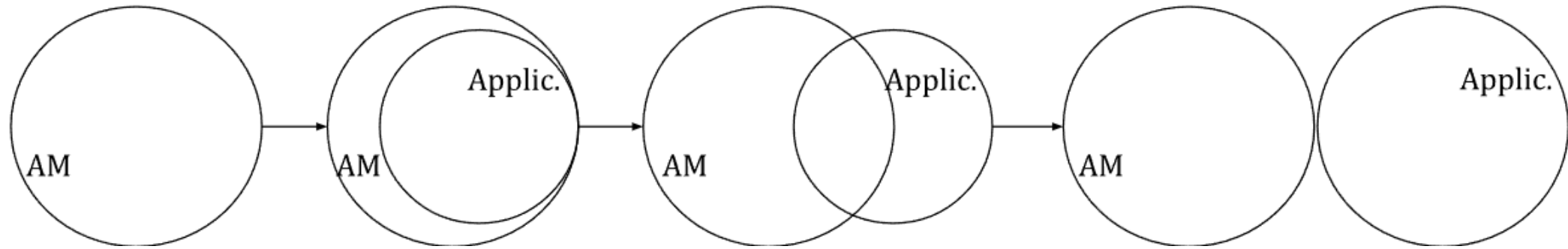
d. *ap-teyek-m-ek=axta yeyam.*
M-fall-TERM-DECL=PST ice
'Hail (ice) fell down.'

→ In between: most frequently obligatory spatial P-applicatives (in both their cumulative and separative uses)

! Unclear how persistent the “tendencies” are due to small number of markers

5. Diachronic implications

Synchronic variation and diachronic implications



Non-applicative AM	Cumulative-only markers	Mixed markers		Separative-only markers
		Cumulative uses	Separative uses	
-	strictly obligatory		mostly obligatory	
	mostly X	strictly P		
	mostly spatial			mostly non-spatial

less “prototypical” applicatives (in terms of Zúñiga & Kittilä (2019))

more “prototypical” applicatives

Further details on the pathway

Hypothesis 1: development of separative uses is triggered by the extension of the marker's distribution to a wider range of verb semantic types

- Cumulative-only (unlike separative-only) markers are skewed towards non-motion verbs
- Mixed markers (intermediate stage): cumulative or separative use depending on the verb (cf. Belkadi's (2016: 64) probability cline for AM vs. directional readings)

(12) Kupsapiiny (Nilotic; Kawachi 2024: 30, p.c.)

AC

a. *ka-pok-kyi* *neeto* *araan*
PST-become.finished-**to.3** 3SG(NOM) **road**
'S/he became exhausted **while going to the road.**'

→ Cumulative with
(change-of-)state verb

AC

b. *kee-yi-ci* *nyi* *neeto*
today.PST.2SG-do-**to.3** 2SG(NOM) **3SG**
'You did (something) **for him/her/them/it.**'

→ Separative with verb
denoting an activity not
involving motion

Further details on the pathway

Hypothesis 2: only P- but not X- (or D-) applicatives develop separative uses

- No mixed or separative-only markers as D- or X-applicatives
- Mixed markers (intermediate stage): no change in the status of the applied phrase in different types of uses

(12) Kupsapiiny (Nilotic; Kawachi 2024: 30, p.c.)

- AC a. *ka-pok-kyi* *neeto* *araan*
PST-become.finished-**to.3** 3SG(NOM) **road**
'S/he became exhausted **while going to the road.**
- AC b. *kee-yi-ci* *nyi* *neeto*
today.PST.2SG-do-**to.3** 2SG(NOM) **3SG**
'You did (something) **for him/her/them/it.**

→ P-applicative in both
cumulative and
separative uses

6. Conclusion

AM markers as applicatives

- Co-expression of AM and applicative functions is **geographically and genealogically widespread** and is **not precluded** by any particular type of AM (RQ1)
- **Three-way typology** of markers with AM and applicative uses based on whether they show AM and applicative uses simultaneously or separately (RQ2)
 - Different behavior in their applicative uses (status of the base phrase; syntactic status and semantic role of the applied phrase)
- **Diachronic pathway** from AM to applicative marker & **hypothesis** for future research (RQ3)

One issue: finding relevant data

Absence of relevant examples ≠ absence in language

→ Let me know about any similar cases of AM or any other spatial markers

References (1)

- Arkadiev, P. 2021. Between noun incorporation and lexical affixation in Northwest Caucasian (with focus on Abaza). Paper presented at Stockholm University, 9 Dec 2021, online.
- Bickel, B. & J. Nichols. 2007. Inflectional morphology. In T. Shopen (ed.), *Language typology and syntactic description*, 169–240. Cambridge University Press.
- Belkadi, A. 2016. Associated Motion Constructions in African Languages. *Africana Linguistica* 22, 43–70.
- Campbell, L, L. Díaz & F. Ángel. 2020. *Nivacle grammar*. Salt Lake City: University of Utah Press.
- Elliott, J. A. 2021. *A grammar of Enxet Sur*. University of Hawai'i at Manoa. (Doctoral dissertation).
- Fabre, A. 2013. Applicatives and associated motion suffixes in the expression of spatial relations: A view from Nivacle (Mataguayo family, Paraguayan Chaco) (unpublished manuscript).
- Guillaume, A. & H. Koch. (eds.). 2021. *Associated Motion*, Berlin: De Gruyter.
- Guillaume, A. Forthcoming. Grammaticalization without semantic change? The case of associated motion and associated posture. In J. Sofie Krog Nedergård, K. Boye, S. Wilbrandt Kjær & M. Nielsen (eds.), *Lexical affixes (Trends in Linguistics. Studies and Monographs [TiLSM])*. Forthcoming, if accepted. Berlin: De Gruyter.
- Kawachi, K. 2024. Associated Motion in the context of Talmy's motion typology. Talk presented at the DDL laboratory, Lyon, France, February 23, 2024.
- Lamarre, C., A. Vittrant, A. Kopecka, S. Voisin, N. Bon, B. Fagard, C. Grinevald, et al. 2022. Deictic directionals revisited in the light of advances in typology. In Sarda, L. & B. Fagard (eds.), *Neglected aspects of motion-event description. deixis, asymmetries, constructions*, vol. 72 (*Human Cognitive Processing*), 69–94. Amsterdam: John Benjamins.

References (2)

- Moroz, G. 2017. lingtypology: easy mapping for Linguistic Typology.
<https://CRAN.Rproject.org/package=lingtypology>.
- Munro, P. 2000. The leaky grammar of the Chickasaw applicatives. In Okrent, A. & J. Boyle (eds.), *The proceedings from the main session of the Chicago Linguistic Society's thirty-sixth meeting*, 285–310. Chicago: Chicago Linguistic Society.
- Nordlinger, R. 2019. From body part to applicative: Encoding 'source' in Murrinhpatha. *Linguistic Typology* 23(3). 401–433.
- Pakendorf, B. & N. Stojnova. 2021. Associated motion in Tungusic languages: a case of mixed argument structure. In Guillaume, A. & H. Koch. (eds.), *Associated Motion*, 855–898. Berlin: De Gruyter.
- Payne, D.L. 2021. The extension of associated motion to direction, aspect and argument structure in Nilotic languages. In Guillaume, A. & H. Koch (eds.), *Associated motion*, 695–746. Berlin: De Gruyter.
- Peterson D. A. 2007. *Applicative constructions*. Oxford: Oxford University Press
- Reed, L. W. & K. L. Lindsey. 2021. 9 “Now the story's turning around”: Associated motion and directionality in Ende, a language of Papua New Guinea. In Guillaume, A. & H. Koch (eds.), *Associated motion*, 357–384. Berlin: De Gruyter. <https://doi.org/10.1515/9783110692099-009>.
- Rose, F. 2019. From classifiers to applicatives in Mojeño Trinitario: A new source for applicative markers. *Linguistic Typology* 23 (3). 435–466.
- Terhart, L. 2024. *A grammar of Paunaka*. (Comprehensive Grammar Library 7). Berlin: Language Science Press.

References (3)

- Van linden, A. 2022. Spatial prefixes as applicatives in Harakmbut. In Pacchiarotti, S. & F. Zúñiga (eds.), *Applicative morphology: Neglected syntactic and non-syntactic*, 129–159. Berlin: De Gruyter.
- Vidal, A. & D. L. Payne. 2021. Pilagá directionals and the typology of associated motion. In Guillaume, A. & H. Koch (eds.), *Associated motion*, 451–484. Berlin: De Gruyter.
- Wojtylak, K. I. 2020. *A Grammar of Murui (Bue): A Witotoan language of Northwest Amazonia*. Leiden: Brill.
- Zúñiga, F. & D. Creissels. 2024. *Applicative Constructions in the World's Languages*, Berlin, Boston: Mouton de Gruyter.

Thank you!

Timofey Mukhin <tmukhin@uliege.be>