

A typological study of applicative uses of associated motion markers

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From associated motion to associated posture in cross-linguistic perspective,
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Outline

1. Introduction
2. Sample & data collection
3. Analysis & results
4. Conclusion

1. Introduction

What are applicatives?

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

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

Base Construction = BC

b. *B-ì'lly-nèe Gye'eihlly [Jwaany].*
PFV-sing-APPL M. J.

Applicative Construction = AC

‘Mike sang with John.’

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
 - Associated Motion (Pakendorf & Stoyanova 2021, Payne 2021)
 - Locationals (Van linden 2022)

Spatial verb morphology: Locationals

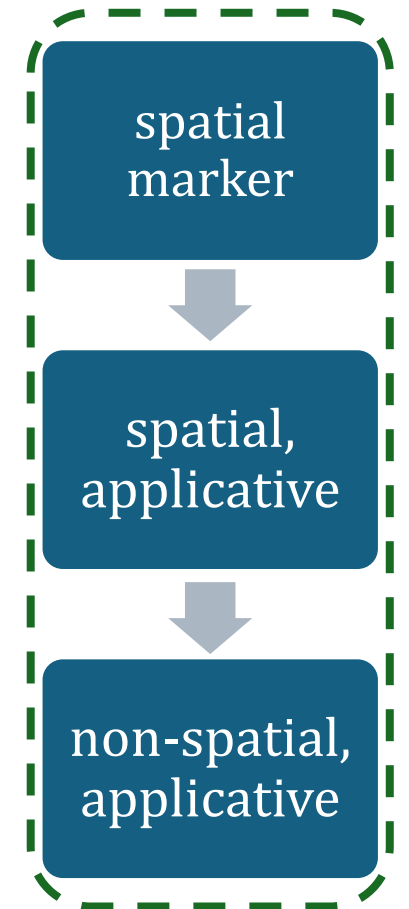
Harakmbut (isolate, SA; Van linden 2022: 130, 142, 148)

(2) *ken-ta? ārĩ-tē kuru-te on-niŋ-on-tuk-po...*
DIST-LOC filler-LOC patio-LOC 3PL.IND-BEN.APPL-**SPAT:on**-plant-DEP
'Then, eh, they planted her **on the patio** for him [i.e. the jaguar]...'

(3) *o-wedn-ato ānĩ [bisikleta] o-n-kot*
3SG.IND-lie-AM:move&do FILLER **bicycle** 3SG.IND-**SPAT:on**-fall
'He falls (literally: 'moves and lies down'), eh, he falls onto his bike.'

(4) *men-pa an-on-ka-tuy, tia*
which-manner 3PL.DUB-**SPAT:on**-do-REM.PST.INDIR.EVD aunt
'How did they do it to him, auntie?'

→ single grammaticalization path



Spatial verb morphology: Associated Motion

AM: a verbal grammatical category, separate from tense, aspect, mood and direction, whose function is to associate, in different ways, different kinds of translational motion to a (generally non-motion) verb event (Guillaume: 2016; Guillaume & Koch 2021: 3)

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

but some examples found, e.g. in Tungusic languages → applicative use

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

(5) *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).’

+ (redirecting) applicative use in Nilotic languages (Payne 2021)

Research questions

RQ1: *How widespread is the applicative use of AM in the world's languages? Any areal/genetic patterns?* → **probability sample**

RQ2: *Does the marker serve both functions in the same context, or does it have either AM or applicative use depending on the verb type?* → **convenience sample**

RQ3: *What are the characteristics of AM markers with applicative uses or applicative markers of AM origin?* → **convenience sample**

Some parameters of variation:

- (i) type of AM
- (ii) syntactic effect of the applicative marker
- (iii) semantic role of the applied phrase

2. Sample & data collection

Probability sample (PS)

75 languages

Genus-Macroarea method
(Miestamo 2005):

- unrelated at level of **genus**
- from 6 **macroareas** in proportion to their genealogical diversity

+ from most recent sources
(90% sources \geq 2000)

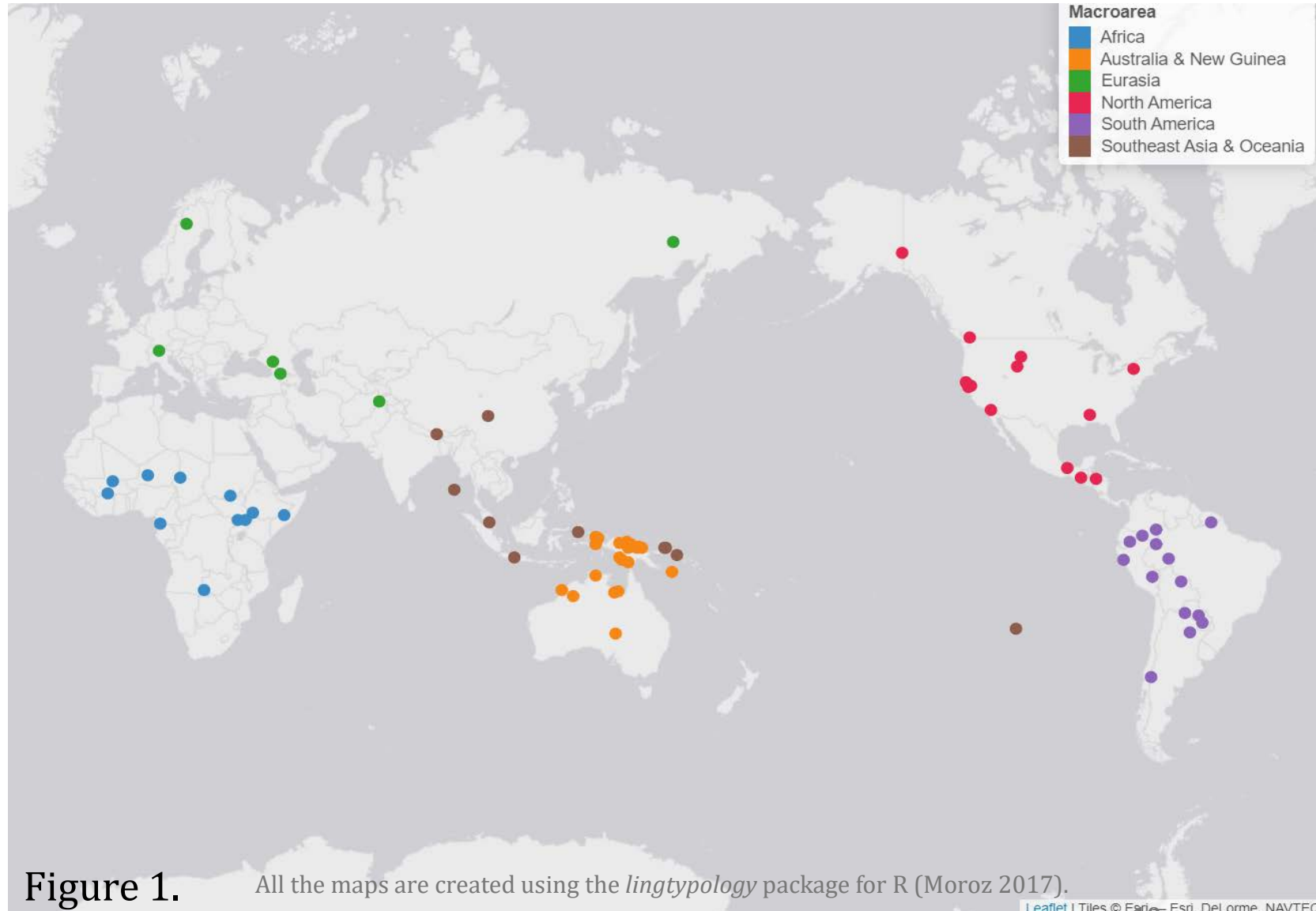


Figure 1.

All the maps are created using the *lingtypology* package for R (Moroz 2017).

Convenience sample (CS)

19 languages

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

- 9 languages from PS + 10 additional languages
- 27 markers

Language	Genus	Source	N of relevant markers
Mursi	South Surmic	Probability & convenience sample	2
Dagik	Kordofanian	Probability & convenience sample	1
Japhug	Na-Qiangic	Probability & convenience sample	2
Cupeño	Northern Uto-Aztecan	Probability & convenience sample	2
Mapudungun	Araucanian	Probability & convenience sample	1
Paunaka	Arawakan	Probability & convenience sample	1
Lengua	Mascoian	Probability & convenience sample	1
Huitoto	Witoto	Probability & convenience sample	2
Nivacle	Matacoan	Probability & convenience sample	3
Even	Tungusic	Convenience sample	1
Nanai	Tungusic	Convenience sample	1
Ulch	Tungusic	Convenience sample	1
Udihe	Tungusic	Convenience sample	1
Negidal	Tungusic	Convenience sample	1
Mabaan	Western Nilotic	Convenience sample	1
Maasai	Eastern Nilotic	Convenience sample	2
Shilluk	Western Nilotic	Convenience sample	1
Nuer	Western Nilotic	Convenience sample	2
Sebei	Southern Nilotic	Convenience sample	1

Table 1.

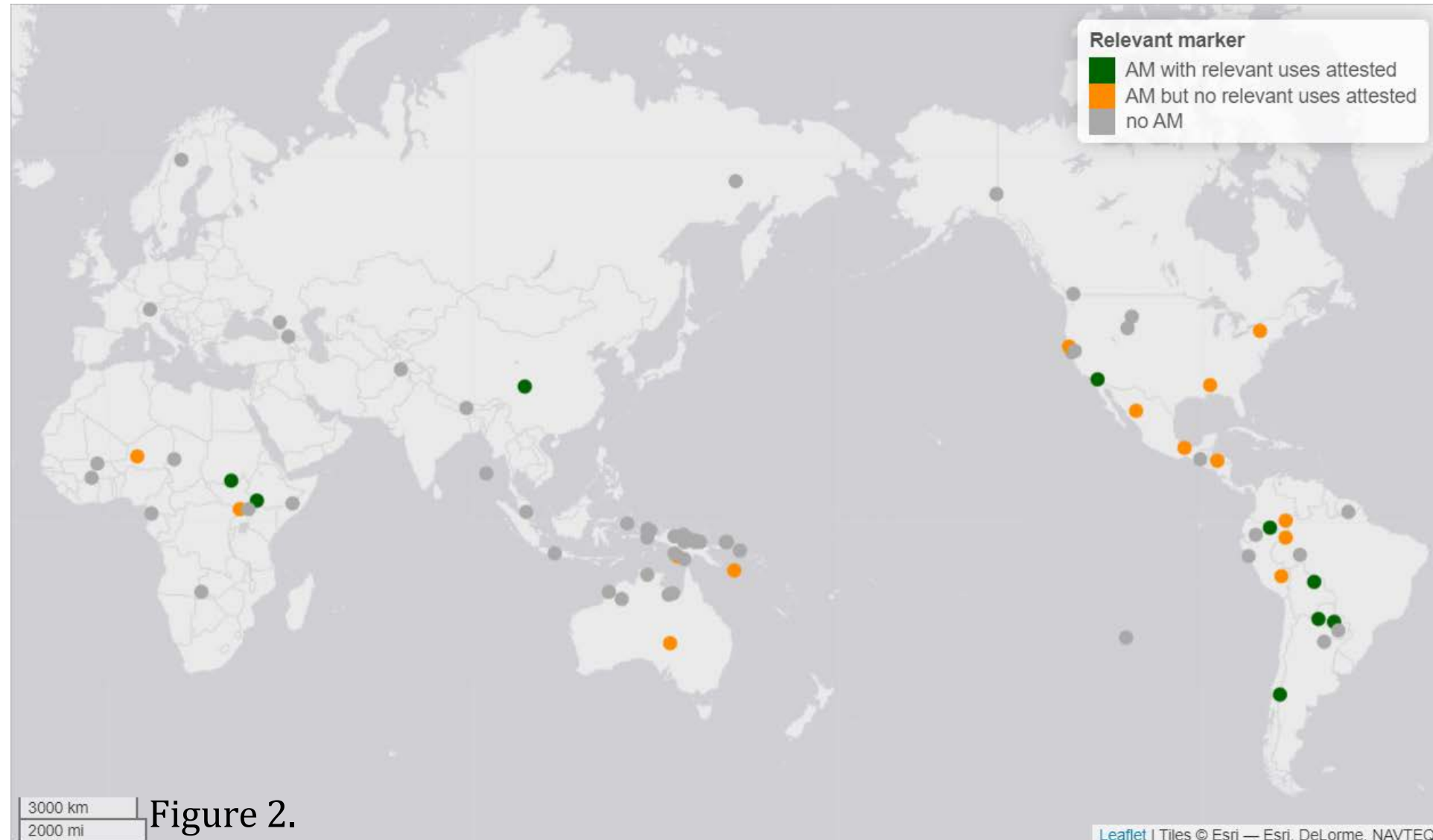
3. Analysis & results

RQ1: Frequency (PS)

RARE in 75-
language
sample:

- 12% (n = 9)
languages
- 15 markers so
far

AM attested in
31% (n = 23)



RQ2: Polyfunctionality (CS)

Murui (Witotoan, SA; Wojtylak 2020: 344) → applicative & AM together

(6) AM and applicative with ‘eat’

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

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

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

Nivacle (Matacoan; SA, Bolivia, Paraguay; Fabre under review: 11) → applicative & AM separately

(7) AM with ‘watch’

*j-ovalh-**c’oya***

1A(>3P)-watch-**AM.ANT.VENT**

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

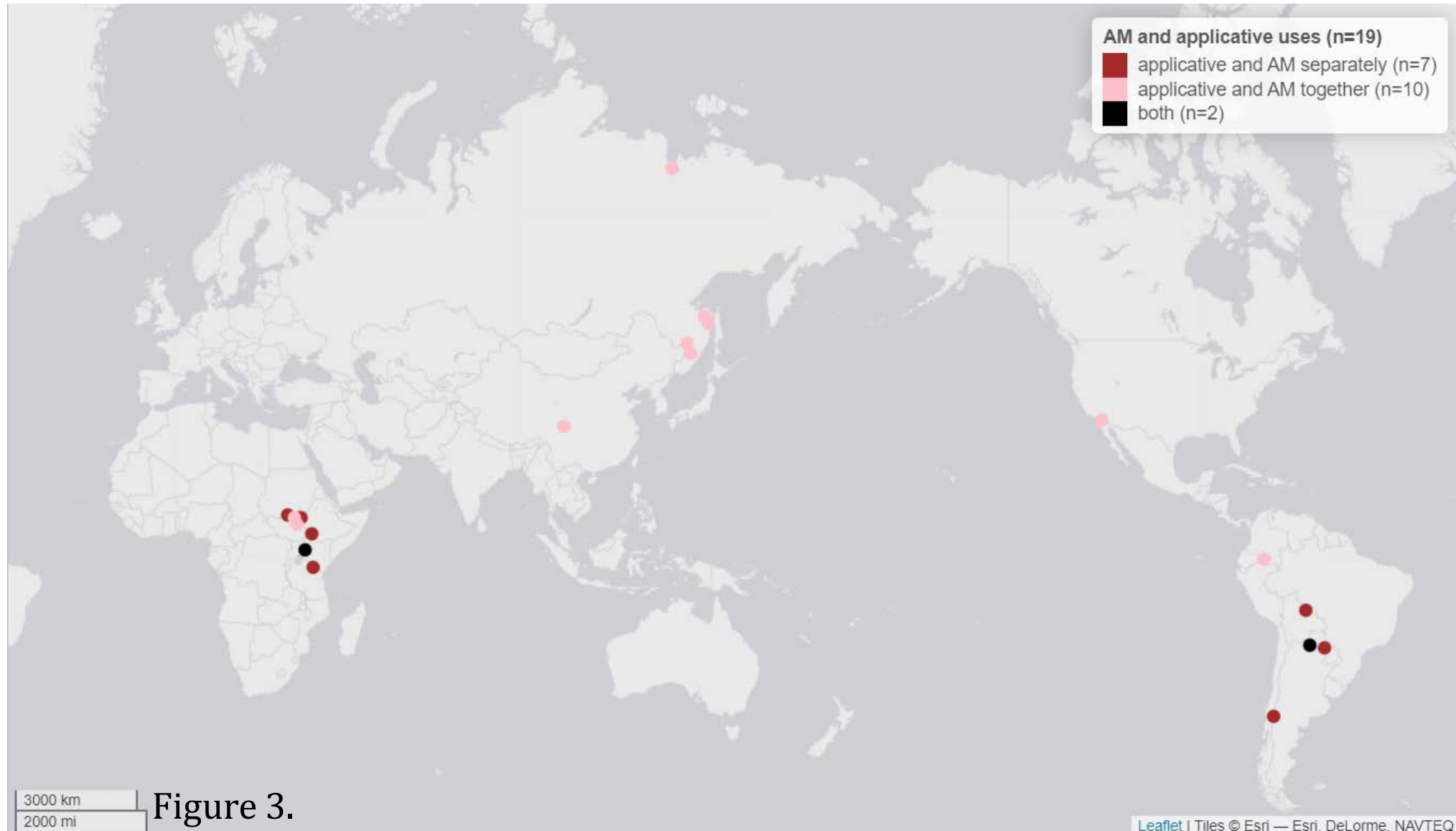
(8) applicative with ‘be.tall’

*a-pitej-[yi]-**c’oya***

2S-be.tall-1-**AM.ANT.VENT**

‘You are taller than me.’

RQ2: Polyfunctionality (CS)



RQ3: Types of AM (CS)

Three subparameters (Guillaume & Koch 2021: 9, 12):

1. Temporal relation between the motion and the verb event
2. Direction of the motion
3. Argument role of the moving figure

	Prior	Concurrent	Subsequent
Subject	itive (n=8)	itive (n=4)	itive (n=2)
	ventive (n=5)	ventive (n=2)	
	andative (n=5)	reversive (n=1)	
	adlocative (n=1)		
Non-subject	NA	ventive (n=3)	ventive (n=2)
		itive (n=2)	itive (n=1)

Table 2.

Notes: 1 marker \geq 1 type; Prior includes Motion-with-purpose

RQ3: Syntactic effect (CS)

1. Syntactic Status of the applied phrase (AppP) in the AC:

- *P-applicative* — AppP = direct object
- *D-applicative* — AppP = dative/indirect object
- *X-applicative* — AppP = oblique

2. Status of the semantic equivalent (BaseP) of the AppP in the BC:

- *Optional* applicative — BaseP present in the BC
- *Obligatory* applicative — BaseP obligatorily absent from the BC

3. Sensitivity to syntactic valency (relevant for P-applicatives):

- *Transitivizing* applicative — increases number of core syntactic arguments in BC
- *Redirecting* applicative — introduction of AppP + demotion of non-Actor argument (up to omission)

RQ3: Syntactic effect (CS)

Murui (Witotoan, SA; Wojtylak 2020: 344)

(9=6) source obligatory X-applicative

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

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

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

Enxet Sur (Mascoian; SA; Elliot 2021: 541, 563)

(10) goal optional P-applicative

a. *ap-teyek-m-ek* *na-xop*

M-fall-TERM-DECL *LOC-earth*

'He fell to the ground.'

b. [*e*]-*tyeg-wak-t-eyk* [*ko'o*] *meteymog*

*1SG.PAT-fall-**ARR-CISL**-DECL* *1SG* *stone*

'A rock fell on me.' ([1]: 563)

BC

AC

RQ3: Syntactic effect (CS)

Agar Dinka (Nilotic, A; Andersen 1992-1994: 10 cited in Payne 2021: 719)

(11) redirecting P-applicative

a. *dɔ̀k à-bòk dí́t*
boy DECL-throw bird
‘The boy is throwing at the bird.’

b. *dɔ̀k à-bóok [doòot]*
boy DECL-throw:ITV stone
‘The boy is throwing a stone thither.’

BC

AC

Direct object = Goal in BC (11a) → Direct object = Theme in AC (11b)

RQ3: Syntactic effect (CS)

		Obligatory	Optional
P-applicative	redirecting	n = 3	0
	transitivizing	n = 10	n = 2
X-applicative		n = 15	0

Table 3.

Note: 1 marker \geq 1 type

Not attested in the sample:

- D-applicative
- Optional X-applicative: also not attested cross-linguistically (Zúñiga & Creissels 2024: 21)
- Redirecting optional applicative

RQ3: Semantic role of AppP (CS)

Functions of applicative markers:

- Adding a “spatial” applied phrase
- Adding a “non-spatial” applied phrase

Fewer roles are attested for AM than for other verbal spatial markers (e.g. locationals)

role type	semantic role	example
Spatial	Source	‘walk from X’
	Path	‘walk along X’
	Goal	‘walk to X’
Non-spatial	Recipient	‘send to X’
	Beneficiary	‘fish for X’
	Standard of comparison	‘be taller than X’

Table 4.

RQ3: Semantic role of AppP: **spatial** (CS)

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

(12) concurrent object ventive AM

n̄y-nekupu-bi

1SG-see.coming-2SG

‘I see **you coming**’

(13) goal optional P-applicative

- a. *pero pi-yunu pi-sane-yae*
but 2SG-go 2sg-field-LOC

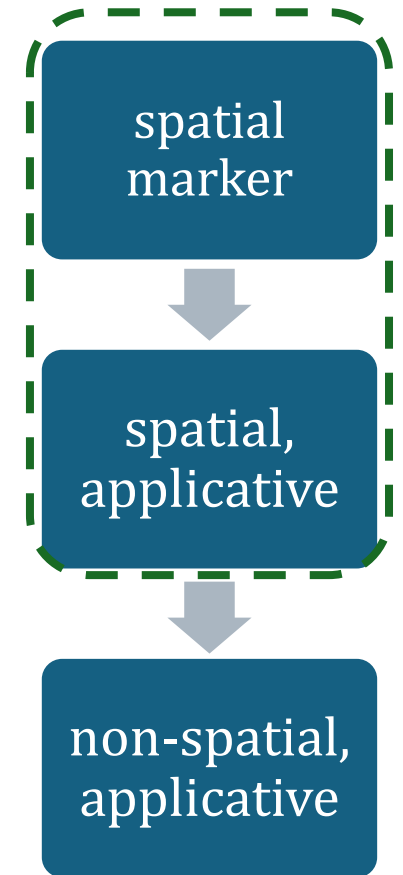
‘But did you go to your field?’

- b. *kuina Jose ti-yunu-pu [uneku]*
NEG José 3-go-DLOC town

‘José isn’t here, he went to town.’

BC

AC



RQ3: Semantic role of AppP: **spatial & non-spatial** (CS)

Nivacle (Matacoan; SA, Bolivia, Paraguay; Fabre under review: 11)

(14=7) **concurrent object ventive AM**

j-ovalh-c'oya

1A(>3P)-watch-**AM.ANT.VENT**

'I watch(ed), waiting for him/her/them **to come.**'

(15) **?source applicative**

va-cumaj-c'oya

3S-run-**AM.ANT.VENT**

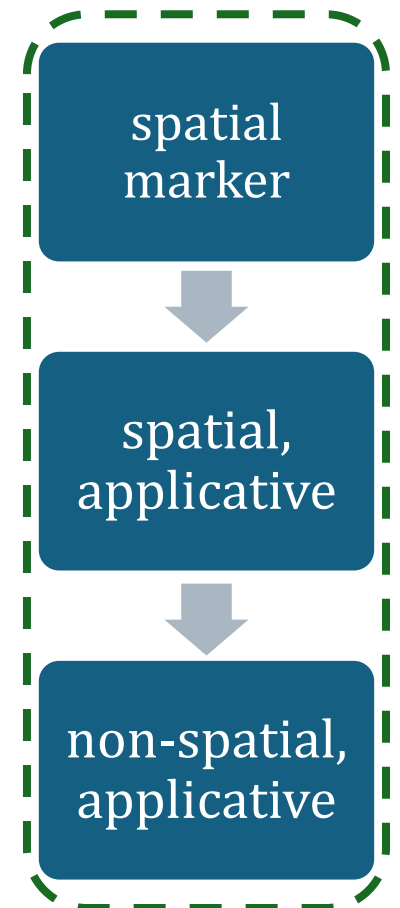
'S/he runs away (from a potential threat).'

(16=8) **standard of comparison obligatory ?P/X-applicative**

a-pitej-[yi]-c'oya

2S-be.tall-1-**AM.ANT.VENT**

'You are taller than me.'



RQ3: Semantic role of AppP: **non-spatial only** (CS)

Mapudungun (Araucanian, SA; Smeets 2008: 376, 421)

(17) ?concurrent subject reversive AM

tüfa-yengün kiñe fotella pulku ye-nie-tu-y.

this-they onebottle wine/liquor carry-PRPS-**RE**-IND

‘This one here (and his companions), they had one bottle of wine **on their way back.**’

(18) stimulus obligatory P-applicative

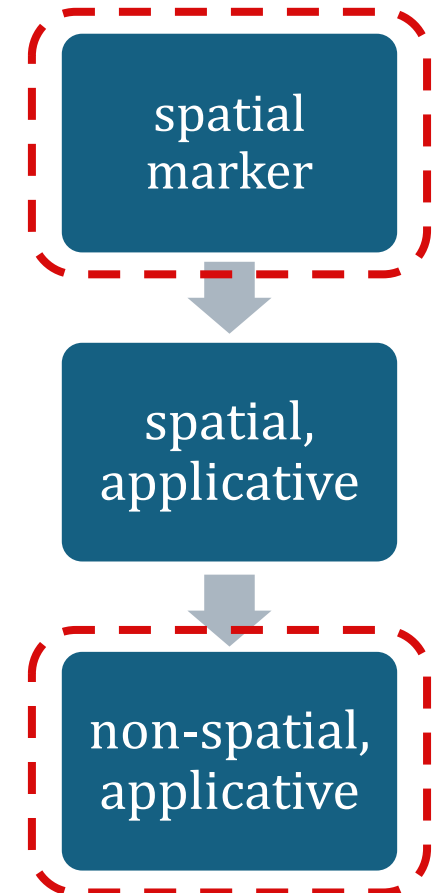
ti u machi illku-tu-nie-fi-ye-m

the COLL medicine.woman become.afraid-**TR**-PRPS-EDO-CF-IVN

[*kiñe-ke ñi pu ka-ruka-tu*]...

one-DISTR POSS COLL other-house-IMPROD

‘When the machis are angry with some of their neighbours...’



RQ3: Semantic role of AppP (CS)

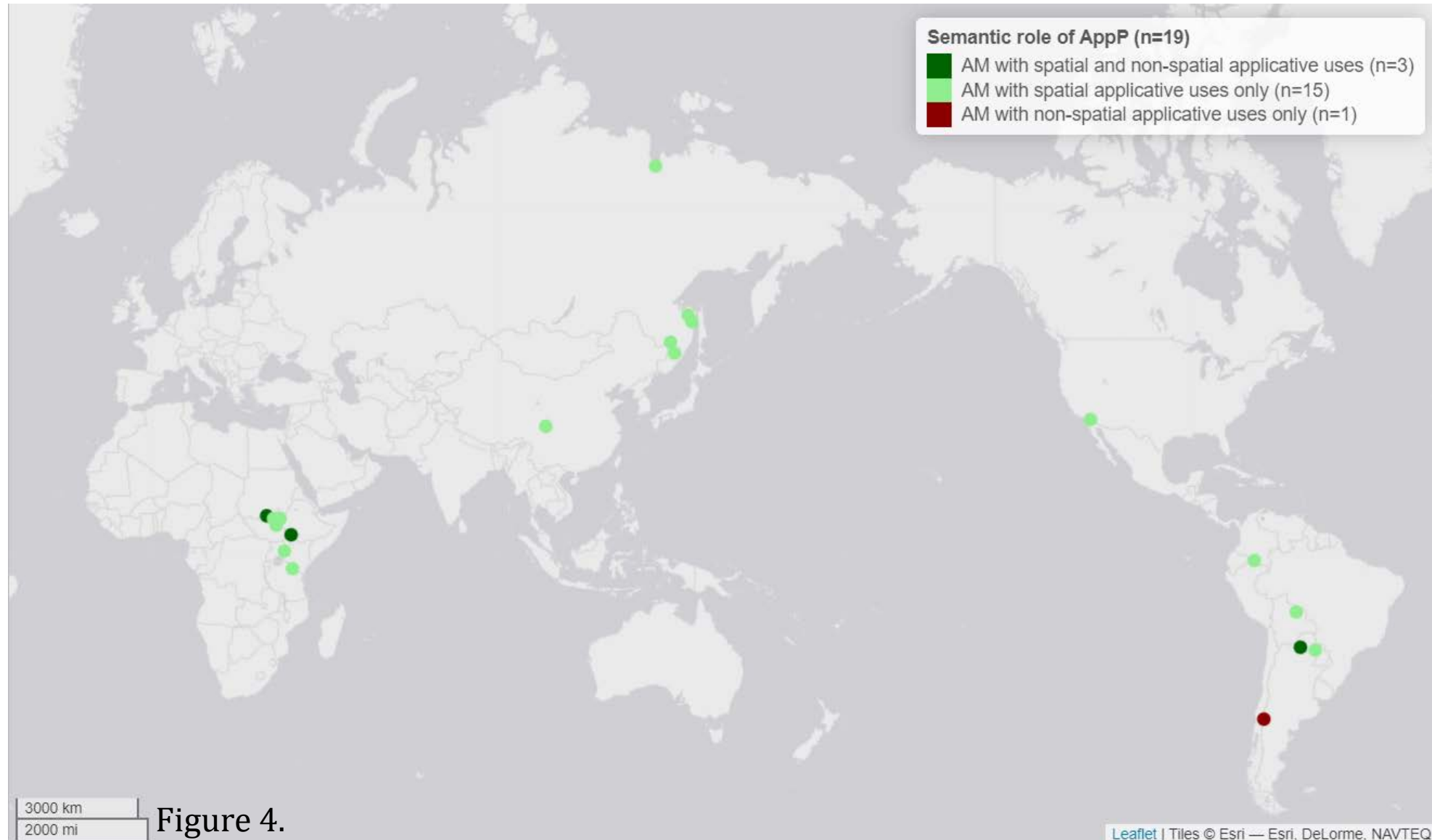


Figure 4.

4. Conclusion

Applicative uses of AM

RQ1: Rare overall, but in 40% of AM languages + in all macroareas except for Australia

RQ2: Transitivity applicative uses without AM reading (?previously unreported)

RQ3:

- Found with various types of AM markers (most commonly prior, ventive and subject)
- X- and P-applicatives (+redirecting), including some non-spatial cases

One issue: finding relevant data

Absence of relevant examples ≠ absence in language

➔ We need your help!

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Thank you!

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Convenience sample



Figure 3.