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Targeting language contact in typological research: A case study on adposition borrowing

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Aims of today's talk

- To give an overview of an ongoing project on the typology of adposition borrowing.
- To illustrate the usefulness of a cross-linguistic sample for the evaluation of proposed universals of contact-induced change, taking as a case study the Linear Order Preservation universal proposed by Moravcsik (1978).

A proposed universal of borrowing

“a grammatical word cannot be borrowed unless the linear order with respect to its head is also ‘borrowed’ [...] This statement excludes a language which borrows the form and the meaning of a preposition and uses it postposed, or which borrows the form and meaning of a postposition and uses it preposed,” (Moravcsik 1978:112).

- “Surprisingly, however, counterexamples are not as readily available as one might expect” (Campbell 1993; Harris & Campbell 1995: 136)
- “[t]his is probably the universal which has stood up best to the test of time and counterexamples” (Curnow 2001: 431)

- It is possible to built theories on small, areally-, genealogically-, and sociolinguistically-restricted cases.
- Another approach is to examine **a broad cross-linguistic sample.**

The Typology of Adposition

Borrowing Project (ISF 248/13)

Looking for empirically-based cross-linguistic generalizations about constraints on borrowing, based on a broad cross-linguistic sample.

Projected scope:

- borrowability of adpositions vis-à-vis other categories,
- ‘hierarchies’ of adpositions borrowed according to meaning;
- morphosyntactic integration of adpositions into recipient language structures (e.g., person indexing, case government, linear order);
- role of frequency and discourse considerations;
- correlations with geography and sociohistorical events and situations

Today's talk

- Background
- The sample
- Evaluating the proposed universal
- Results and discussion

Background: lexical borrowing

- The literature on language contact has repeatedly noted that, with respect to lexical borrowing, it is more likely for content items (“words”) to be borrowed than function items (“words”).
- That is, there seem to be constraints on borrowing.
- Such constraints have often been interpreted as implicational universals.

Borrowability scales as implicational universals

- content item > **function word** > agglutinating affix > fusional affix (Field 2002)
- nouns, conjunctions > verbs > discourse markers > adjectives > interjections > adverbs > other particles, **adpositions** > numerals > pronouns > derivational affixes > **inflectional affixes** (Matras 2007)

Different interpretations (Haspelmath 2009):

- Quantitative, temporal, implicational, frequency

Borrowability scales

- Such scales predict that borrowing of function words is less frequent and more constrained than borrowing of content items.
- Much of the research on borrowing has concentrated on the borrowing of content words (see Haspelmath and Tadmor 2009, Wohlgemuth 2009, Matras 2011, among others), on the one hand, or on the borrowing of grammatical patterns, on the other.

While there is a lot of interesting work on particular languages, language families, and linguistic areas, the borrowing of adpositions has not received systematic cross-linguistic attention in the literature yet.

Note: Frank Seifart's *AfBO, A Worldwide Survey of Affix Borrowing*, now online. Smaller in scale than the current project, with a little overlap.

What goes into the database?

What is an adposition?

Adpositions: roughly, grammatical elements marking the relationship between two parts of a clause

“An adposition (Adp) is an unanalyzable or analyzable grammatical word constituting an adpositional phrase (Adp-phrase) with a term that it puts in relationship, like case affixes, with another linguistic unit, by marking the grammatical and semantic links between them” (Hagège 2010: 8)

Problems with most definitions

- They assume “word” as a cross-linguistically definable concept, which has been argued to be untenable.
- Moreover, descriptive terminology is often inconsistent and even controversial.
- What one linguist describes as an adposition might be described by another as a case marker, a relational noun, a relator, or using terms from an orthogonal parameter, as a clitic or affix. Cf. the nightmare of tagmemic descriptions.

Problems with most definitions

As such, “adposition” is used here as a broad net, encompassing the following language-specific descriptive categories:

- Adposition
- Relational noun
- Case marker
- Relator
- Locative body part

“Adposition” here is broadly equivalent to the notions “case marker,” “flag” or “dependent marker,” which mark dependent noun phrases for the type of relationship they bear to their heads.

Adpositions, in practice

This is common enough in typologists' practice anyway, e.g., Bakker on Quechua postpositions:

“some authors analyze them as case markers (cf. Cerrón-Palomino 1987). Given enough time, this is likely what at least some of them might develop into anyway” (2012: 14).

Adpositions, in practice

Bottom line:

- Difficulties in synchronic categorization often reflect diachronic pathways of change, both in terms of boundedness and in terms of the lexicon/grammar continuum.
- Descriptive linguists propose language-specific categories necessary for description, while typologists might have to live with broader comparative concepts (Haspelmath 2010).
- This is important, since we want to generalize across language structures, not linguists' descriptive practices.

A way out?

Multivariate Analysis (Bickel 2010, 2011)

- Don't typologize over categories
- Do typologize over matrices of fine-grained properties

Appendix: Pilot database on clause adjoining (NA = information not available)

Language	Label	Marker	ILL-scope	T-scope	Finiteness	ILL-mark	T-mark	Symmetry	WH	Extraction	FOC	Position	Layer	References and examples
Azule	PUT	gha	local	local	finite	banned	ok	symmetrical	NA	NA	NA	fixed-pre-main	ad-S	Roberts (1987, 1988), (7), (34c-d)
Azule	CRADV	-me -iV	conjunct	conjunct	nonfinite	banned	banned	asymmetrical	NA	NA	NA	fixed-pre-main	ad-S	Roberts (1987, 1988), (1), (18), (20), (32b), (51), (59)
Azule	OR	fo -o	conjunct	local	finite	ok	ok	symmetrical	NA	NA	NA	fixed-pre-main	ad-S	Roberts (1987, 1988), (32a)
Azule	COND	fi	disjunct	extensible	any	ok	ok	constraint-free	ok	NA	NA	flexible-relational	ad-S	Roberts (1987, 1988), (39)
Azule	PURP	nu	disjunct	extensible	any	banned	ok	asymmetrical	NA	NA	NA	fixed-pre-main	ad-S	Roberts (1987, 1988)
Belhare	AND	=e/ha, =e/ha	constraint-free	local	finite	ok	ok	symmetrical	NA	banned	banned	flexible-adjacent	ad-S	Bickel (1993), (32)
Belhare	CRADV	ki(na/hup)	constraint-free	extensible	finite	harmonic	ok	asymmetrical	ok	possible	ok	flexible-adjacent	ad-S	Bickel (1993), (3a), (17), (23), (42), (46a), (47), (54), (58)
Belhare	INCONS EQ	-kone	local	extensible	nonfinite	ok	banned	asymmetrical	ok	banned	ok	flexible-adjacent	ad-S	Bickel (1993)
Belhare	SVB	-naa, -huy/go/do/e/ha, =e/ha	disjunct	extensible	finite	banned	ok	constraint-free	ok	banned	ok	flexible-relational	ad-S	Bickel (1993), (6), (40a), (48b-c), (57)
Belhare	CVB	-sa	constraint-free	conjunct	nonfinite	ok	banned	asymmetrical	ok	banned	ok	flexible-adjacent	ad-V	Bickel (1993), (5b), (14b), (40c)
Belhare	PURP	-si	constraint-free	conjunct	nonfinite	ok	banned	asymmetrical	ok	banned	ok	flexible-adjacent	ad-V	Bickel (1993)
Belhare	COM	-lo(k)	local	conjunct	finite	banned	harmonic	asymmetrical	ok	banned	ok	flexible-relational	ad-V	Bickel (1993), (14a), (26), (40b), (56)
Burushaski	CRADV	n/V/-E-fi/n	constraint-free	extensible	nonfinite	NA	banned	asymmetrical	NA	NA	banned	flexible-adjacent	ad-S	Tikkanen (1995), (13)

Adposition borrowing: matter vs. pattern (Matras 2009, Sakel 2007)

Matter replication:

Incorporation of sounds and sound shapes of words and morphs alongside their grammatical meaning and function.

Pattern replication:

Replication of the organization, distribution and mapping of grammatical patterns using native linguistic material (without borrowing actual forms).

Adposition borrowing: matter vs. pattern (Matras 2009, Sakel 2007)

Interestingly, among the most detailed descriptions of individual cases of adposition borrowing are those involving pattern replication (e.g., Ross 1996, Heine & Kuteva 2006).

Jenny 2013: Mon developed double preposition constructions under the influence of Burmese

a. ပဲကိုသို့
dəʔ kv hvəʔ
LOC OBL house
'in the house'

b. အိမ်ထဲမှာ
ʔein thè hma
house in LOC

a. နုကိုသို့
nù kv hvəʔ
SRC OBL house
'out of the house'

b. အိမ်ထဲက
ʔein thè ká
house in SRC

Matter replication I

Matter replication can occur in a few different ways, e.g.,

a. Adposition > adposition

Sinti Romani < German (Matras & Elšik 2006)

<i>tu</i>	<i>hal</i>	<i>kowa</i>	<i>kai</i>	<i>weh</i>	von	<i>o</i>
you	you.are	that	who	you.come	from	DEF.NOM

dewles-ter

God-ABL

“You are the one who comes from God”

Matter replication 2

b. borrowed lexeme grammaticalized as an adposition in a recipient language:

- Indonesian (Austronesian) *antara* ‘between’, in which a noun was borrowed from Sanskrit, and later developed into an adposition (Tadmor 2009);
- Basque (isolate) *kanpo* “outside” from Spanish (Indo-European) *campo* “field”
- Taba (Austronesian) *ada* ‘COM/INSTR’ < North Moluccan Malay (Austronesian) *ada* ‘exist’ (Bowden 2001)

Matter replication 3

c. Collocation of a borrowed lexeme with an inherited basic adposition/case-marker, e.g.,

Maltese *flok* “instead of” which is the result of univerbation of the inherited basic adposition *f(i)*- “in” and the borrowed lexical item *lok* (< Sicilian *loku*, “place”).

Pattern replication

Pattern replication can be involved in the development of adpositions in a number of ways, including triggering or catalyzing the emergence of an adposition category in a language that did not have one pre-contact

Brahui (Dravidian) acquires prepositions as the result of contact with Indo-Aryan languages.

Borrowability scales/hierarchies

In borrowing hierarchies, adpositions are generally located somewhere in the middle

- nouns, conjunctions > verbs > discourse markers > adjectives > interjections > adverbs > other particles, **ADPOSITIONS** > numerals > pronouns > derivational affixes > inflectional affixes (Matras 2007, see also Muyskens 2008)

The location of adposition in the middle of the hierarchy predicts that they will be rather resistant to borrowing compared to other types of lexical and grammatical items.

Which adpositions are borrowed?

Often observed that borrowed adpositions usually express peripheral local meanings (“between, around”) as opposed to core local meanings, such as “in, at” (Matras 2007: 42)

- Non-temporal/non-spatial > peripheral temporal > core temporal > peripheral spatial > core spatial (> core grammatical relations)

Counterexamples:

- Latvian *pa* “at, to” into Livonian (Grünthal 2003)
- Dative markers from Nepali in Kham (Watters 2004)
- and many more.

Livonian (Uralic) < Latvian (IE)

Se izā um tie-nd tānda
it father is make-PTCP.PST him/her

pa *rištīngō-ks* *tegīž.*

PREP man-TRANSLCOM back

‘The father has made him a human being again’ (Grünthal 2003: 178)

Kham (Tibeto-Burman) < Nepali (IE)

ŋa-lai nə-məya lagi-zya.

me-DAT 2SG-love feels-CONT

‘I feel love for you.’ (Watters 2004: 225)

Another addition from yesterday!

Motion events in Russian Sign Language

Kirill Aksenov, Elena Pasalskaya, Valeria Vinogradova, Daria Lapenkova

“GOAL BIAS”

There is a verb in RSL that can be combined with both Goal and Source. While Goal is not marked, Source should be marked with a sign which is a fingerspelled borrowing from spoken Russian (И-3 = F-R-O-M)*.

P-E-T-Y-A LEAVE F-R-O-M SAINT-PETERSBURG

'Petya left Saint-Petersburg'

I SAINT-PETERSBURG PAST LEAVE

'I left for Saint-Petersburg'

*This sign is the only borrowed Russian spatial preposition.

Why is adposition borrowing interesting?

- Adpositions lie at the border between grammar and lexicon.
- Not necessarily homogeneous categories in this respect.
- Can be closed classes, open classes, or non-existent in particular languages.
- Often involved in complex syntactic relationships (encoding of arguments, government of case-marked nouns, etc.).
- Not extremely common

Why is adposition borrowing interesting?

In general, understanding constraints on of what can be borrowed is crucial for typology (Nichols 1992, Bickel 2012), since the diffusion of features creates cross-linguistic similarities.

Constraints on adposition borrowing

Structural constraints: e.g., what influence does linear order of the contact languages have on the borrowability of adposition?

Sociolinguistic constraints: can we operationalize proposed notions like “intensity and length of contact”, “type of contact situation” etc.?

Semantic constraints: to what extent does the inherent meaning of adpositions determine borrowability?

Discourse constraints: to what extent do different speech styles/modes influence adposition borrowing?

Does **frequency** play a role, and if so, how?

Adposition borrowing and morphosyntax

- Person indexing
- Case marking
- Word class

Person indexation ('agreement')

Kurdish (IE) *gal* “with” > Arbel Neo-Aramaic (Afroasiatic)
gall/gall- (Khan 1999)

gall-eu

with-3SGM

“with him”

Closely related languages

Tlalolcuala Valley Zapotec (Oto-Manguenan)

<i>pu'unt</i>	<i>me'es</i>	<i>pu'unt=ni'i</i>
at_tip_of	table	at_tip_of=3PR
“at the end of the table”		“at the end of it”

San Bartolome Zoogocho Zapotec (Oto-Manguenan)

<i>trasde</i>	<i>neto</i>	<i>*trasde=to</i>
behind	I PL.EXCL	behind=I PL.EXCL
“behind us”		

Case

Borrowed adpositions can co-occur with inherited adpositions or other case markers, as in some Quechua varieties (< Spanish).

Lamas Kechwa (Quechuan; Sanchez 2012)

Kawa-yka-n **a** ese *niñitu-ta*.

look-PROG-3SG **ACC** that boy-ACC

“(S/he) is looking at that boy”

Supyire (Senufo) *fó* ‘till, as far as’ < Bambara *fɔ* (Niger-Congo) ‘till, except for’ (Carlson 1994)

u à kàrè fó Sukwole e
s/he PERF go as.far.as Sikasso to
‘S/he went as far as Sikasso.’

u à báraŋi pyi fó yàkòŋké
s/he PERF work.DEF do till afternoon.DEF
‘S/he worked until the afternoon.’

Are adpositions always borrowed as adpositions?

Linguists often express doubts about whether a given adposition is borrowed “as an adposition” or rather as a noun, adverb, or something else:

Basque

etsaien

enemies.PL.GEN

kontra

against

“against the enemies”

Are adpositions always borrowed as adpositions?

- Borrowed adpositions are often integrated into the same case patterns as inherited ones.
- The fact that an adposition is linked by a possessive/genitive marker is relatively unremarkable, since such constructions are often sources for language-internal grammaticalization.
- In some cases, there is no evidence whatsoever for basic adpositions being borrowed as nouns, e.g., Azeri Turkic *qabax* ‘front side’ > Neo-Aramaic *qabax* ‘in front of’, but no lexical use.

We should keep in mind that

- Morphosyntactic coding is not the only evidence for categorial assignment.
- The fact that many borrowed adpositions are integrated into pre-existing adnominal (“genitive”) constructions does not necessarily mean that the adposition was borrowed **as a noun**.
- Meaning and broader distributional facts have to be taken into account.

Most importantly

We still know very little about the cross-linguistic variation of integration of borrowed adpositions into inherited case systems.

Meaning

- Are adpositions borrowed with their entire polysemy network?
- If not, do they confirm or disconfirm the semantic contiguity hypothesis that underlies semantic maps?
- Is there any implicational relationship between lexical vs. grammatical meanings when ‘axial parts’ are borrowed

What kind of cross-linguistic sample?

- Are balanced or stratified samples desirable – or possible – in the typology of borrowing?
- Such samples might be useful for studying borrowability *per se*, i.e., whether adpositions are borrowed or not, but they are less useful for studying other questions, e.g., linear order, morphosyntactic integration, and semantics.
- Methodological limitations and difficulties of work on the typology of borrowing.

Cross-linguistic samples

- We know rather a lot about some families/areas (Meso- and South America, the Araxes area, Europe), but next to nothing about others (e.g., Africa, northern North America).
- We even have some “universals of contact situations” e.g., Stolz’ universal for Spanish-Mesoamerica/Pacific contact (if a language borrows an adposition, it also borrows the conjunction *pero* “but”).

- Some proposed universals might turn out to be specific to particular areas or contact situations
- Casting a wide net is crucial for the typology of borrowing, especially since some allegedly robust universals might turn out to show areality.

Our research questions

Some still unasked...

- What is the validity of proposed borrowing hierarchies?
- What are the synchronic constraints – whether structural, sociolinguistic, or discourse-based – on adposition borrowing?
- What do we know about the actual diachrony of adposition borrowing?
- What are the cross-linguistic patterns of morphosyntactic integration of adpositions?
- In what situations does contact lead to the emergence of a new “adposition” category?
- What conditions encourage or inhibit adposition borrowing?

In order to ask these questions we need

- Detailed descriptions of adposition borrowing in individual languages, families, and areas
- Integration of discourse and sociolinguistic factors
- Integration of extra-linguistic factors, i.e., social, cultural, historical features, including actual attested diachronies.
- Cross-linguistic research!

Next

- A cross-linguistic sample of adposition borrowing
- Evaluating a proposed universal of language contact:
Linear Order Preservation
- Conclusions

THE SAMPLE

The pilot sample

A convenience sample of
100 language pairs
89 recipient languages (RL)
ca. 30 donor languages (DL)

- Just a pilot sample
- Currently building a much more detailed and comprehensive database.
- Also, many pairs need to be looked at more closely.

Where does the data come from?

- Grammars and dictionaries.
- Secondary literature.
- Corpora.

Basically, anything I can get my hands on – a voracious convenience sample.

The database under construction

The Hebrew University of Jerusalem  האוניברסיטה העברית בירושלים

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ita Set, Out Of Total 105 Records

Recipient Language Meaning	Recipient Language Lemma Category	Recipient Language	Recipient Language Family	Recipient Language Order	Recipient Language Area	Donor Language	Donor Language Family	Donor Language Lemma	Donor Language Meaning	Donor Language Order	Donor Language Area
around	Prep	Neo-Aramaic (Southern Persian-Azeri Jewish)	Afro-Asiatic		Eurasia	Persian	Indo-European	atrāf	around		Eurasia
until	Prep	Neo-Aramaic (Southern Persian-Azeri Jewish)	Afro-Asiatic		Eurasia	Kurdish (Central)	Indo-European	ḥeta\ heta\ hatā	until, up to		Eurasia
around	Prep	Neo-Aramaic (Southern Persian-Azeri Jewish)	Afro-Asiatic		Eurasia	Persian	Indo-European	čār atrāf	four sides		Eurasia
until	Prep	Neo-Aramaic (Northern Persian-Azeri Jewish)	Afro-Asiatic		Eurasia	Kurdish (Central)	Indo-European	ḥeta\ heta\ hatā	until, up to		Eurasia
to	Prep	Guaraní	Tupian		South America	Spanish	Indo-European	a	to		Eurasia

#attat #matéwa g-do olka, #darwazit olka dwiqálu "by the time he arrived in that city, they had shut the city gate", mar peši galox #atta ezan adjan "let them stay with you until I go and come back" (more ex. in G)

May not take personal pronouns. In relation to nouns, numerals and demonstrative pronouns (or clauses apparently), may connect directly or, in archaic style and deliberate speech, through the relational suffixes -t

Garbell 1965b: 60-62, 98, 298

reference: Garbell 1965b: 60-62, 98, 298

Michael L. Chyet (2003): 274; Kurdov K (1960): 344; Wheeler M. Thackston (2006): 190; Wahby, Taufiq & CJ Edmonds (1966): 64

A cautionary excursus

- This project was my first cross-linguistic study.
- I knew I had to make a database.
- I hired an IT guy to do it, and housed the database on the university website.
- Long story short, the database is inaccessible today.
- Lesson for IT dummies (like me): keep it simple and flexible. Don't be afraid to ask for advice and help from experienced typologists.

Areal distribution (in the pilot sample)

Area	Language Pairs	%
Africa	8	8%
Australia	0	0%
Eurasia	64	64%
North America	10	10%
Pacific	5	5%
South America	13	13%
Total	100	100%

Areal bias might result from

- A genuine lack or paucity of adposition borrowing.
- This seems to be the case in northern North America and in Australia.
- Biases in description

Or bias with respect to presence/ absence of adpositions

World Atlas of Language Structures Feature 85A (Dryer 2011)

Postpositions	577
Prepositions	512
Inpositions	8
No dominant order	58
No adpositions	30

< 3% of languages in the sample are reported to have no adpositions.

Bias wrt presence/absence of adpositions

World Atlas of Language Structures Feature 48
(Bakker 2011)

No adpositions	63
No person marking	209
Pronouns only	83
Pronouns and nouns	23

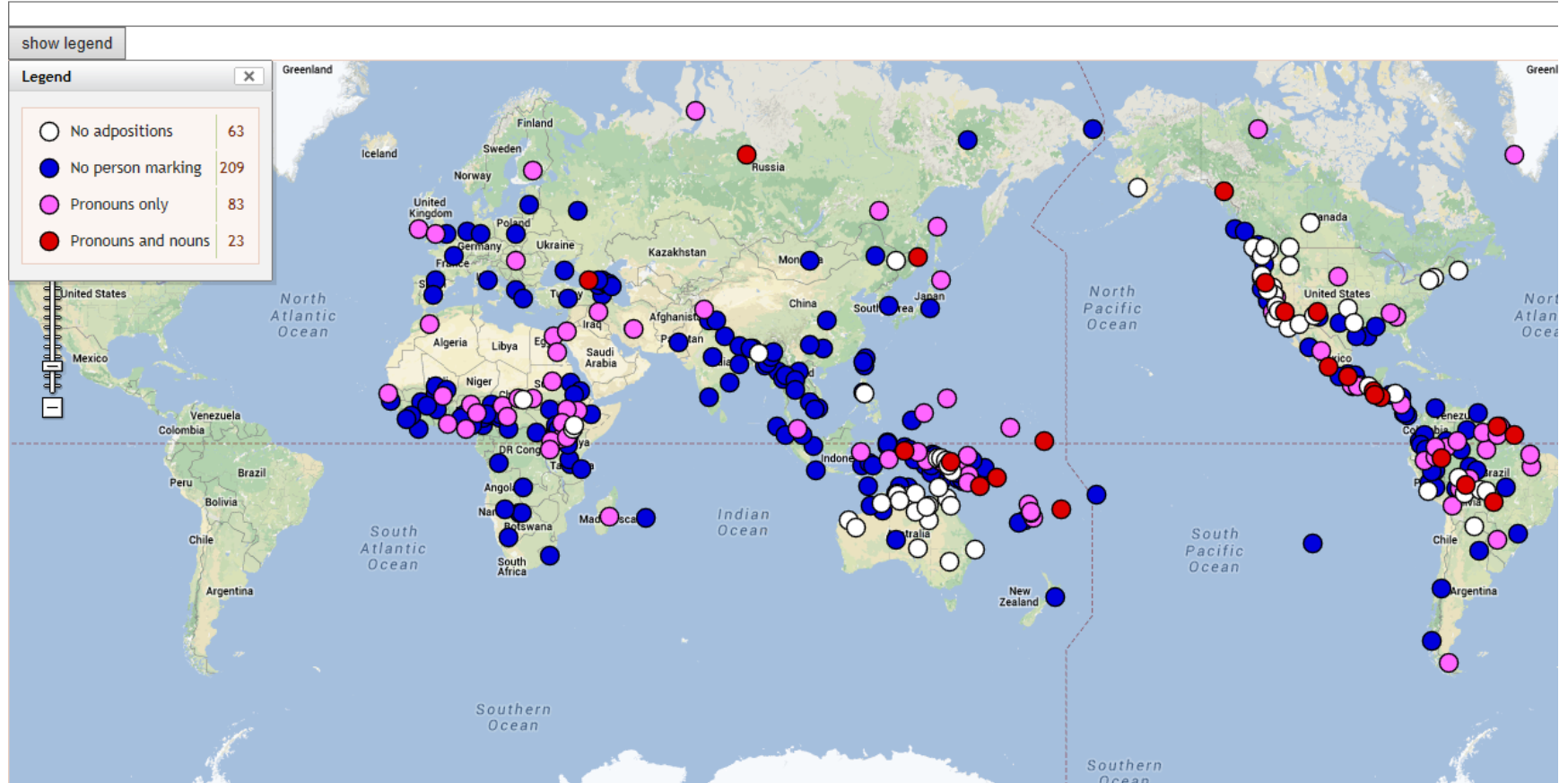
6% of languages in sample reported to have no adpositions.

Bias wrt presence/absence of adpositions

Feature 48A: Person Marking on Adpositions

by Dik Bakker

[get URL for the map currently displayed](#)



Doesn't look very significant, but Australia and North America figure prominently in the 'no adposition category (more than half, taken together).

EVALUATING LINEAR ORDER PRESERVATION

A proposed universal of borrowing

“a grammatical word cannot be borrowed unless the linear order with respect to its head is also ‘borrowed’ [...] This statement excludes a language which borrows the form and the meaning of a preposition and uses it postposed, or which borrows the form and meaning of a postposition and uses it preposed,” (Moravcsik 1978:112).

Evaluating the universal

First of all, what are the logical possibilities, if

- (a) we take only prepositions and postpositions, leaving aside ambipositions, circumpositions, and other less frequent construction types (Hagège 2010)?
- (b) we take only languages that have a dominant PrN or NPos order?

We need to take into account

1. The basic linear order of adposition vis-à-vis complement in the donor language (DL);
2. The basic linear order of adposition vis-à-vis complement in the recipient language (RL); and
3. The linear order of borrowed adposition vis-à-vis-complement in the recipient language.

A quick typology of situations

Harmonic order: when the donor language linear order matches recipient language linear order:

- a. Prepositional DL/Prepositional RL
- b. Postpositional DL/Postpositional RL

Disharmonic order: when donor language linear order \neq recipient language linear order.

- a. Prepositional DL/Postpositional RL
- b. Postpositional DL/Prepositional RL

8 logically possible borrowing outcomes and their predictability

DL adposition	Borrowed as X	in X-positional RL	Harmonic?	Predicted by LOP universal?
Preposition	Preposition	Prepositional	harmonic	Yes, trivially
Postposition	Postposition	Postpositional	harmonic	Yes, trivially
Preposition	Postposition	Prepositional	harmonic	No, trivially
Postposition	Preposition	Postpositional	harmonic	No, trivially
Preposition	Preposition	Postpositional	disharmonic	Yes
Postposition	Postposition	Prepositional	disharmonic	Yes
Preposition	Postposition	Postpositional	disharmonic	No
Postposition	Preposition	Prepositional	disharmonic	No

The only situations with which we can test the proposed universal are **disharmonic** situations.*

*Not really. Languages that allow both Pr and Pos are also interesting, but we won't be dealing with them here.

The only situations with which we can test the proposed universal are ***disharmonic*** situations.*

*Not really. Languages that allow both Pr and Pos are also interesting for evaluating the universal, but we won't be dealing with them here.

4 situations for evaluating LOP

DL adposition	Borrowed as X	in X-positional RL	Harmonic?	Predicted by LOP universal?
Preposition	Preposition	Prepositional	harmonic	Yes, trivially
Postposition	Postposition	Postpositional	harmonic	Yes, trivially
Preposition	Postposition	Prepositional	harmonic	No, trivially
Postposition	Preposition	Postpositional	harmonic	No, trivially
Preposition	Preposition	Postpositional	disharmonic	Yes, LOP
Postposition	Postposition	Prepositional	disharmonic	Yes, LOP
Preposition	Postposition	Postpositional	disharmonic	no: counter-example
Postposition	Preposition	Prepositional	disharmonic	no: counter-example

Disharmonic pairs in the sample

40 disharmonic pairs from

Eurasia, Pacific, North and South America

Disharmonic situations are somewhat less frequent than harmonic ones

- Probably in part due to the fact that linear order is not distributed evenly across languages.
- Linear order also tends to pattern areally.

SOME RESULTS

Harmonic (I): Pr > Pr in Pr

Coptic (Afroasiatic) < Greek (IE)

kata-pek-šače

according.to-your-word

‘According to your word.’

kata *tên* *praksin* *autou*

according.to ART.ACC work.ACC DEM.GEN

‘According to his work.’

Harmonic (2): Pos as Pos in Pos

Kolami (Dravidian; India; Subrahmanyam 1998)

bōtal (< Marathi (IE) *bhovtālā*)

ūr *bōtal*
village.NOM around
'around the village'

lōpal (< Telugu (Drav.) *lōpala*)

ella *lōpal*
house.NOM inside
'inside the house'

Unattested harmonic situations

- Harmonic (3): Pr as Pos in Pr

Not attested to date.

- Harmonic (4): Pos as Pr in Pos

Not attested to date.

Interim summary

- Harmonic situations always comply with Linear Order Preservation, but in two different ways.
 - When two languages have the same adposition order, the result is always trivially identical to the order of both.
 - Which means that it never results in the other order, trivially and entirely unsurprisingly.
- What happens in disharmonic situations?
 - Keep in mind that LOP predicts that disharmonic situations will always be resolved in favor of the linear order of the **donor** language.

Disharmonic (I): Pr as Pr in Pos

Karaim (Turkic) *kolo* < Polish (IE) *kolo*

I uzhe bu fotograf
and already this photographer

tur-at kolo Bas'ya-nin.

stand-A.NONPST-3PS **by** Bas'ya-GEN

'And this photographer is already standing **near** Basia.' (Csató 2000: 269)

LOP: ✓

Disharmonic (I): Pr as Pr in Pos

Brahui (Dravidian; Pakistan; Bray 1909)

- All native adpositions are postpositions
- All prepositions are borrowed from ‘Perso-Arabic’

bayaire nēān

without you.ABL

‘without you’

bē(dē) nēān

without you.ABL

‘without you’

LOP: ✓

Disharmonic (I): Pr as Pr in Pos

Khorasan Turkic (Turkic) < Persian (IE)

ta *axirä* *äčän*

to end.DAT to

‘to the end’

LOP: ✓

Disharmonic (I): Pr as Pr in Pos

Khalaj Turkic < Persian (IE)

bī *sān*
without 2SG
'without you'

LOP: ✓

Disharmonic (I): Pr as Pr in Pos

Cavineña (Tacanan; Bolivia) < Spanish

amena aje-etibe-chine

BM walk-COME.PERM.DISTR-REC.PST

hasta re-keja

until here-LOC.GNL

‘I came back walking slowly until here.’

“As in Spanish, this morpheme is preposed to its argument in Cavineña [...] Note that except for this borrowed morpheme, Cavineña does not have any preposition” (Guillaume 2008: 77)

LOP: ✓

Disharmonic (2): Pos as Pos in Pr

Romani (Gadžikano, Kaspičan, IE) < Turkish (Elšík & Matras 2006)

Varšava-dan

Warsaw-ABL

‘from Warsaw’

Polša-dan

Poland-ABL

‘from Poland’

Rusija-da

Russia-LOC

‘in Russia’

Disharmonic (3): Pr as Pos in Pos

Basque (Isolate, France/Spain) < Spanish (Indo-European, Spain; exx. from A. Antonov, p.c.)

(a)

poliziek *gobernuaren* *kontra*
police.DEF.PL government.DEF.GEN **against**

protesta *egin* *dute*
protest DO.PTCP AUX.PRES.3PL>3SG
The police protested against the government

(b)

ni-rekin *zaude* *edo* *ni-re* *kontra*
1SG-WITH be.PRS-2SG or 1SG-GEN **against**
Either you are with me or you are against me.

Disharmonic (3): Pr as Pos in Pos

Basque (cont.)

hormaren ***kontra***
wall.DEF.GEN **against**
against the wall

hormari ***kontra***
wall.DEF.DAT **against**
against the wall

LOP: X

Disharmonic (3): Pr as Pos in Pos

Sri Lanka Malay (Austronesian) < Javanese (Austronesian) Nordhoff

kithang *lorang=nang* *baaye mliiga athi-kaasi*
I PL 2 PL=DAT good palace IRR-give
“We will give you beautiful palaces”

Javanese [Ngoko] (Austronesian)

nang ngomah
at home
‘at home’

LOP: X

Disharmonic (3): Pr as Pos in Pos

Manambu (Sepik, PNG) < Tok Pisin (Eng. based creole)

mən-a **wantaim** *yi-k-na-bran*

you.M-LK **with** go-FUT-ACT.FOC-I duBAS.VT

We will go together with you; you and I will go together'

Replaces the postposition *wukən* 'together, with.' The postposition *wantaim* is used by younger speakers, and considered highly substandard" (Aikhenvald 2001: 611).

LOP: X

Disharmonic (3): Pr as Pos in Pos

Khalaj Turkic < Persian

tā čāštga *tā*
to noon.DAT to
'until noon'

äkgi künkä *tā*
two day.DAT to
'up to two days'

LOP: X

Disharmonic (3): Pr as Pos in Pos

Brahui (Dravidian, Pakistan)

Borrowed adpositions can pattern like native ones:

nēān *savā*

you.ABL without

‘without you’

LOP: X

Disharmonic (3): Pr as Pos in Pos

Russian (IE) < Erzya (Uralic) (Grünthal fc)

a. *t'ejt'er jaki čuvto-n' krugom*

girl walk.3SG tree-GEN around

‘a girl walks around a tree’

b. *t'ejt'er jaki čuvto-n' peřka*

girl walk.3SG tree-GEN around

‘a girl walks around a tree’

Disharmonic (4): Pos as Pr in Pr

Azerbaijani Neo-Aramaic (Afroasiatic) <
Azerbaijani (Turkic), (Garbell 1965)

qabay *kalo* < Azerbaijani *qabax*
before the.bride (Householder 1965)

qabay-an
before- I PL

LOP: X

Disharmonic (4): Pos as Pr in Pr

Anatolian Kurdish (Indo-European; Haig 2001)

Turkish

X-DAT göre

‘according to X’

Kurdish

(li) gora X

X-DAT *ait*

‘belonging to X’

LOP: X

aitê X

Interim Summary: Disharmonic situations and their outcomes

Outcome		Africa	Australia	Eurasia	North America	Pacific	South America	Total	
Trivial LOP	Pr > Pr in Pr	6		23	4	4		37	
	Pos > Pos in Pos	2		20			1	23	
								60	60%
Non-trivial LOP	Pr > Pr in Pos			7	6		12	25	
	Pos > Pos in Pr			2				2	
								27	27%
Counterexamples	Pr > Pos in Pos			9		1		10	
	Pos > Pr in Pr			3				3	
								13	13%
Total		8	0	64	10	5	13	100	

Results

Harmonic vs. disharmonic situations: 60% vs. 40%

Disharmonic situations found most often in Eurasia, South America, and North America (in the 'Iberosphere').

Linear order preservation:	67.5%
Counterexamples to LOP:	32.5%

Unexpected:

- Prepositions are much more frequently borrowed than postpositions in disharmonic situations.
- Eurasia shows the full range of outcomes; no other area does.

Interim summary

- Linear Order Preservation is the most common outcome when adpositions are borrowed, but:
- Real opportunities to evaluate this empirically are relatively rare, because:
- Many instances of adposition borrowing are between languages with the same linear order, in part due to areal patterning of linear order and perhaps to genealogical considerations.

Some examples

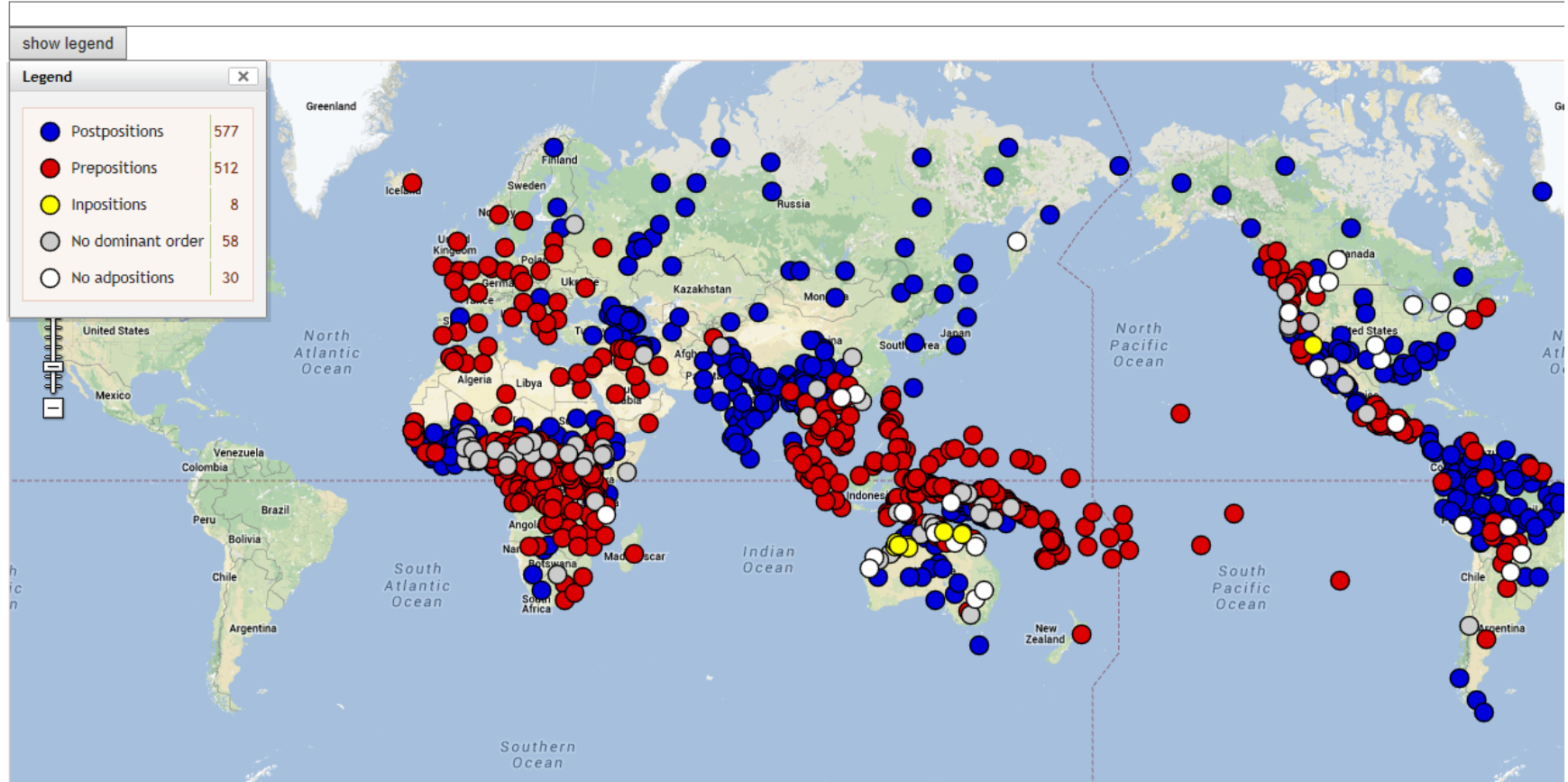
- a. The South Asian 'Indosphere' is a hotbed of adposition borrowing, but all of the languages in the sample have postpositions.
- b. Same goes for the 'Middle Volga' region, with Turkic and Uralic languages (Mari, Chuvash, Tatar, Udmurt).
- c. Interestingly, North and South America in the 'Iberosphere' have lots of disharmonic situations, but LOP is invariably observed (in the sample).
- d. Prepositional Romani, Yiddish and Neo-Aramaic languages frequently borrow adpositions, but most of the contact languages have prepositions.

Areality of AdpNP order

Feature 85A: Order of Adposition and Noun Phrase

by Matthew S. Dryer

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Nonetheless

In some cases the above are in contact with languages with another linear order, so we have a nice laboratory to evaluate the universal:

- Brahui (Pos) and Indo-Aryan languages (Pr)
- Romani (Pr) and Finnish, Hungarian, Turkish (all Pos)
- Neo-Aramaic (Pr) and Azerbaijani (Pos).

Similarly, donor languages in contact with multiple recipient languages (usually across large areas) are interesting:

- Arabic (Pr) in contact with Bantu, Turkic, Indo-European, Nilo-Saharan, and more.
- Spanish (Pr) in contact with Otomanguean, Quechuan, Tupi, Austronesian, Basque, and more.
- Persian (Pr) in contact with Turkic, other Indo-Aryan, and others.

Bottom line:

Linear Order Preservation is not an absolute universal, but rather a tendency.

Both kinds of counterexamples are found:

- Prepositions borrowed as postpositions (Basque, Turkish, Sri Lanka Malay, Khalaj Turkic, Manambu)
- Postpositions borrowed as prepositions (Central Anatolian Kurdish, Azerbaijanian Neo-Aramaic)

Actually, in the sample, when the situation is disharmonic, 1/3 of the outcomes are counterexamples to LOP.

So what?

- Purely structural accounts don't make the right predictions,
- Because given the same disharmonic structural situation, both outcomes are possible.
- Purely structural accounts are especially weak, because **a single language pair can have multiple results**, e.g.,
 - Khalaj Turkic < Persian (Pr, Pos < Pr)
 - Brahui < 'Perso-Arabic' (Pr, Pos < Pr)

Some things to consider

- DL adpositions often occur in ‘bilingual mode’ or code-switching before they diffuse to monolingual RL speech (Karaim < Russian/Polish).
- DL adpositions are often limited to DL lexical complements (e.g., Chamorro *kon* < Spanish *con* ‘with’; Topping 1973).
- There are also borrowed adpositions that occur with RL lexemes, but the converse is not found (e.g., Chamorro *sin* < Spanish *sin* ‘without’).

Some things to consider

- There are cases in which borrowed adpositions can occur in both orders in disharmonic situations, i.e., according to DL patterns (LOP) and according to RL patterns (no LOP).
- In some contact situations, it seems there is an implicational relationship between examples of LOP and counter-examples, e.g., Khorasan, Tabriz, and Khalaj Turkic, which all borrowed Persian prepositions ($Pr > Pr$).
- But counterexamples ($Pr > Pos$) are only found where LOP-conforming examples are also found. The converse is not true.

This may suggest

That at least in some cases, speakers of donor languages do initially follow Linear Order Preservation, but afterwards treat borrowed adpositions like native ones.

Some things to consider

- Taken together, these observations indicate that there might be a constraint against altering *donor* language linear order, at least in the speech of bilinguals.
- The donor language is *also* part of the bilingual repertoire (Matras 2009).
- Such a constraint would probably lead to a statistical preponderance of LOP-conforming outcomes.
- And also allows us to propose a prediction, which can be evaluated empirically:

Counterexamples to LOP are likeliest to occur in situations that facilitate 'disloyalty' to *donor* language patterns, e.g., in which, e.g.,

- Bilingualism is community-wide, which would favor convergence within the bilingual repertoire, at least in some speech registers, or
- Speakers are no longer bilingual, and the donor language patterns are no longer part of their repertoire > recipient language-internal change,
- Bilingualism is symmetrical and stable, rather than asymmetrical and imposed.

So we need to look at *sociolinguistic typology*, too.

Envoi

Moravcsik's proposed universal has generated a lot of useful research, and more cross-linguistic research remains to be done, e.g.:

- Linear order and morphosyntactic integration, especially with respect to compatibility with inherited case markers.
- Direct vs. indirect borrowing (Seifart 2013+).
- Typologizing sociolinguistic and discourse situations in which adpositions are borrowed.

Thank you!

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Pr > Pr in Pr

1. Arabic (Jewish Tripolitanian) (yud)	Africa	Afroasiatic	Hebrew	Afroasiatic	Pr	Pr	(Yoda 2005)
2. Arabic (Jewish Tripolitanian) (yud)	Africa	Afroasiatic	Italian	Indo-European	Pr	Pr	(Yoda 2005)
3. Coptic (cop)	Africa	Afroasiatic	Greek	Indo-European	Pr	Pr	(Shisha-Halevy 1986)
4. Hausa (hau)	Africa	Afroasiatic	Arabic	Afroasiatic	Pr	Pr	(Newman 2000)
5. Siwi (siz)	Africa	Afroasiatic	Arabic	Afroasiatic	Pr	Pr	(Souag 2010)
6. Swahili (swh)	Africa	Niger-Congo	Arabic	Afroasiatic	Pr	Pr	(Ashton 1962)
7. Croatian [Molise Slavic] (hrv)	Eurasia	Indo-European	Italian	Indo-European	Pr	Pr	(Marra 2012)
8. Domari (rmt)	Eurasia	Indo-European	Arabic	Afroasiatic	Pr	Pr	(Matras 2007)
9. Maltese (mlt)	Eurasia	Afroasiatic	Italian	Indo-European	Pr	Pr	(Muysken 2008)
10. Neo-Aramaic (Amediya) (lsd)	Eurasia	Afroasiatic	Iraqi Arabic	Afroasiatic	Pr	Pr	(Greenblatt 2010)
11. Neo-Aramaic (Amediya) (lsd)	Eurasia	Afroasiatic	Kurdish	Indo-European	Pr	Pr?	(Greenblatt 2010)
12. Neo-Aramaic (Betanure) (lsd)	Eurasia	Afroasiatic	Kurdish	Indo-European	Pr	Pr	(Mutzafi 2008)
13. Neo-Aramaic (C. Qaraqosh)	Eurasia	Afroasiatic	Arabic	Afroasiatic	Pr	Pr	(Khan 2002)
14. Neo-Aramaic (C. Qaraqosh)	Eurasia	Afroasiatic	Kurdish	Indo-European	Pr	Pr	(Khan 2002)
15. Neo-Aramaic (C.Barwar) (aii)	Eurasia	Afroasiatic	Iraqi Arabic	Afroasiatic	Pr	Pr	(Khan 2008)

1. Neo-Aramaic (C.Barwar) (aii)	Eurasia	Afroasiatic	Kurdish	Indo-European	Pr	Pr	(Khan 2008)
2. Neo-Aramaic (Challa)	Eurasia	Afroasiatic	Iraqi Arabic	Afroasiatic	Pr	Pr	(Fassberg 2009)
3. Neo-Aramaic (Challa)	Eurasia	Afroasiatic	Kurdish	Indo-European	Pr	Pr?	(Fassberg 2009)
4. Neo-Aramaic (J. Arbel)	Eurasia	Afroasiatic	Arabic	Afroasiatic	Pr	Pr	(Khan 1999)
5. Neo-Aramaic (J. Arbel)	Eurasia	Afroasiatic	Kurdish	Indo-European	Pr	Pr?	(Khan 2002) (Paul 2009)
6. Neo-Aramaic (J. Koy Sanjaq)	Eurasia	Afroasiatic	Kurdish	Indo-European	Pr	Pr?	(Mutzafi 2004)
7. Neo-Aramaic (J. Sulemaniyya & Halabja)	Eurasia	Afroasiatic	Hebrew	Afroasiatic	Pr	Pr	(Khan 2004)
8. Neo-Aramaic (J. Sulemaniyya & Halabja)	Eurasia	Afroasiatic	Kurdish	Indo-European	Pr	Pr?	(Khan 2004)
9. Neo-Aramaic (Jilu) (aii)	Eurasia	Afroasiatic	Kurdish	Indo-European	Pr	Pr?	(Fox 1997)
10. Neo-Aramaic (Northern Persian-Azeri)	Eurasia	Afroasiatic	Kurdish	Indo-European	Pr	Pr?	(Garbell 1965a, 1965b)
11. Romani (Manuġ; NW dialects)	Eurasia	Indo-European	French	Indo-European	Pr	Pr	(Matras 2002)
12. Romani (Abruzzian; Slovene/ Apennine dialects)	Eurasia	Indo-European	Italian	Indo-European	Pr	Pr	(Matras 2002)
13. Vietnamese (vie)	Eurasia		Chinese	Sino-Tibetan	Pr	Pr	
14. Yiddish (ydd)	Eurasia	Indo-European	Hebrew	Afroasiatic	Pr	Pr	

1. Mixtec (Chalcatongo) (mig)	North America	Otomanguean	Spanish	Indo-European	Pr	Pr	(Macaulay 1996)
2. Otomi	North America	Otomanguean	Spanish	Indo-European	Pr	Pr	(Bakker, Gómez-Rendón, and Hekking 2008)
3. Pipil (ppl)	North America	Uto-Aztecan	Spanish	Indo-European	Pr (previously Pos)	Pr	(Campbell 1985)
4. Tehepua					Pr	Pr	
5. Chamorro (cha)	Pacific	Austronesian	Spanish	Indo-European	Pr	Pr	(Topping and Dungca 1973)
6. Hiligaynon	Pacific	Austronesian	Spanish	Indo-European	Pr	Pr	Stolz
7. Tagalog	Pacific	Austronesian	Spanish	Indo-European	Pr	Pr	Stolz
8. Tetun Dili (tdt)	Pacific	Austronesian (creole)	Portuguese	Indo-European	Pr	Pr	(Hajek 2006)

Pos > Pos in Pos

1. Dongolawi-Kenuz (xnz)	Africa	Nilo-Saharan	Nobiin	Nilo-Saharan	Pos	Pos	(Heine 2005)
2. Supyire (spp)	Africa	Senufo	Bambara	Mande	pos/pr	pos	(Carlson 1994), (Carlson 1990)
3. Bantawa	Eurasia		Nepali		Pos	Pos	
4. Mari	Eurasia	Uralic (Finno-Ugric)	Chuvash	Turkic	Pos	Pos	(Bereczki 1993)
5. Chuvash (chv)	Eurasia	Turkic	Udmurt	Uralic (Permic)	Pos	Pos	(Bereczki 1993)
6. Newar (Dolakha) (new)	Eurasia	Sino-Tibetan	Nepali	Indo-European	Pos	Pos	(Genetti 2007)
7. Gondi (gon)	Eurasia	Dravidian	Indo-Aryan	Indo-European	Pos	Pos	(Subrahmanyam 1968), (Steever 1998)
8. Gta' (gaq)	Eurasia	Munda	Indo-Aryan	Indo-European	Pos	Pos	(Anderson 2008a)
9. Gutob (gbj)	Eurasia	Munda	Indo-Aryan	Indo-European	Pos	Pos	(Griffiths 2008)
10. Ho (hoc)	Eurasia	Munda	Indo-Aryan	Indo-European	Pos	Pos	(Anderson 2008c)
11. Juang (jun)	Eurasia	Munda	Oriya	Indo-European	Pos	Pos	(Patnaik 2008)
12. Kham (Sheshi) (kip)	Eurasia	Sino-Tibetan	Nepali	Indo-European	Pos	Pos	(Watters 2002)
13. Kharía (khr)	Eurasia	Munda	Sadri	Indo-European	Pos	Pos	(Peterson 2008)
14. Kolami (nit)	Eurasia	Dravidian	Marathi	Indo-European	Pos	Pos	(Subrahmanyam 1998)
15. Kolami (nit)	Eurasia	Dravidian	Telugu	Dravidian	Pos	Pos	(Subrahmanyam 1998)

1. Malayalam (mal)	Eurasia	Dravidian	Sanskrit	Indo-European	Pos	Pos	(Mallassery 1994)
2. Mordvinian (Erzya) (myv)	Eurasia	Uralic	Tatar	Turkish	Pos	Pos	(Berezki 1993)
3. Mundari	Eurasia	Munda			Pos	Pos	(Osada 2008)
4. Remo (Bonda) (bfw)	Eurasia	Munda	Indo-Aryan	Indo-European	Pos	Pos	(Anderson 2008b)
5. Rongpo (rnp)	Eurasia	Sino-Tibetan	Indo-Aryan	Indo-European	Pos	Pos	
6. Santali (sat)	Eurasia	Munda	Bengali/Hindi	Indo-European	Pos	Pos	
7. Sunwar (suz)	Eurasia	Sino-Tibetan	Nepali	Indo-European	Pos	Pos	(Borchers 2008)
8. Cavineña (cav) (?)	South America		Quechua/Aymara?		Pos	Pos?	

Pr > Pr in Pos

1. Brahui (brh)	Eurasia	Dravidian	Indo-Iranian	Indo-European	Pos	Pr	(Bray 1909)
2. Karaim (kdr)	Eurasia	Turkic	Polish	Indo-European	Pos	Pr	(Csato 2001)
3. Karaim (kdr)	Eurasia	Turkic	Russian	Indo-European	Pos	Pr	(Csato 2001)
4. Ket (ket)	Eurasia	Yeniseian	Russian	Indo-European	Pos	Pr	Vajda in WOLD
5. Turkish (Khalaj) (klj)	Eurasia	Turkic	Persian	Indo-European	Pos	Pr	
6. Turkish (Khorasan) (kmz)	Eurasia	Turkic	Persian	Indo-European	Pos	Pr	
7. Turkish (Tebriz Azerbaijani) (azb)	Eurasia	Turkic	Persian	Indo-European	Pos	Pr	
8. Mexicano (Malinche)	North America	Uto-Aztecan	Spanish	Indo-European		Pr	
9. Nahuatl (Orizaba) (nlv)	North America	Uto-Aztecan	Spanish	Indo-European	Pos	Pr	Tuggy 1996

1. Popoloca	North America		Spanish	Indo-European	Pos	Pr	
2. Yaqui (yaq)	North America	Uto-Aztecan	Spanish	Indo-European	Pos	Pr	
3. Zapotec (zap) (San Lucas QuiavinI)	North America	Otomanguean	Spanish	Indo-European	pos	pr	Lillehaugen & Sonnenschein CITE)
4. Zapotec (zap) (San Dionicio Ocotepec)	North America	Otomanguagean	Spanish	Indo-European	pos	pr	Broadwell 2004
5. Baniwa (bwi)	South America	Arawakan (Maipurean?)	Portuguese	Indo-European	Pos	Pr	(Aikhenvald 2002)
6. Bolivian Quechua (qul)	South America	Quechuan	Spanish	Indo-European	Pos	Pr	(Muysken 2008)
7. Cavineña (cav)	South America		Spanish		Pos	Pr	
8. Guarani (gm)	South America	Tupi-Guarani	Spanish	Indo-European	Pos	Pr	(Bakker, Gómez-Rendón, and Hekking 2008)
9. Quechua (Imbabura) (qvi)	South America	Quechuan	Spanish	Indo-European	Pos	Pr	(Rendón 2008)
10. Moseten (cas)	South America	Isolate	Spanish	Indo-European	Pos	Pr	Sakel 2008
11. Piapoco (pio)	South America	Arawakan	Spanish	Indo-European	Pos	Pr	(Aikhenvald 2002)
12. Purepecha (tsz)	North America	Tarascan	Spanish	Indo-European	Pos	Pr	(Chamoreau 2007)
13. Quechua (Ulcumayo) (qym)	South America	Quechuan	Spanish	Indo-European	Pos	Pr	(Sánchez 2011)

Pos > Pr in Pr

1. Kurdish (Central Anatolian) (kmr)	Eurasia	Indo-European	Turkish	Turkic	Pr	Pos	(Haig 2002)
2. Neo-Aramaic (Northern Persian-Azeri)	Eurasia	Afroasiatic	Azeri Turkish	Turkic	Pr	Pos?	(Garbell 1965a), (Garbell 1965b)
3. Romani (Aja Varvara; South Vlax)	Eurasia	Indo-European	Turkish	Turkic	Pr	Pos	(Matras 2002)

Pr > Pos in Pos

1. Basque (eus)	Eurasia	Isolate	Spanish	Indo-European	Pos	Pr	Antonov p.c.
2. Brahui (brh)	Eurasia	Dravidian	Indo-Iranian	Indo-European	Pos	Pr	(Bray 1909)
3. Hindi-Urdu	Eurasia	Indo-European	Perso-Arabic	?	Pos	Pr	
4. Sri Lanka Malay (sci)	Eurasia	Austronesian	Javanese	Austronesian	Pos	Pr	
5. Tatar	Eurasia	Turkic	Arabic	Afroasiatic	Pos	Pr	
6. Turkish	Eurasia	Turkic	Arabic	Afroasiatic	Pos	Pr	
7. Turkish (Khalaj) (klj)	Eurasia	Turkic	Persian	Indo-European	Pos	Pr	
8. Uyghur	Eurasia	Turkic					
9. Uzbek	Eurasia	Turkic					
10. Manambu	Pacific	Sepik	Tok Pisin	?	Pos	Pr	