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# 'Up', 'down', and 'out' – directionals and perfectivity

Picture shows the directional system in Ahtna (Athabaskan). From Andrea Berez, On polysynthesis in discourse: Lexicalization and grammaticalization in Ahtna directional morphology. [https://www.academia.edu/7047350/On\\_polysynthesis\\_in\\_discourse\\_Lexicalization\\_and\\_grammaticalization\\_in\\_Ahtna\\_directional\\_morphology](https://www.academia.edu/7047350/On_polysynthesis_in_discourse_Lexicalization_and_grammaticalization_in_Ahtna_directional_morphology)

# Topic of the presentation

- The topic of this presentation is the ways in which what I will call **directionals** can become involved in TAME systems, in particular in the grammatical marking of perfectivity ...
- ... via the role of **bounders**, that is as "counterparts to particles like the English *out, up, apart* etc. "which have "the effect of making the process denoted by the verb 'bounded' ('telic')" (Bybee & Dahl 1989)

# What are directionals?

- The term "directional" will here be used to denote morphemes which
  - form a closed or semi-closed set
  - denote directions -- typically opposite directions along some dimension, and almost always including the vertical dimension (up—down)
  - may include deictic marking (from and to the deictic center), sometimes combined with other directionals
  - form tight combinations with verbs, either as affixes (sometimes fused) or as clitics or particles



# Examples of directional sets

## Khroskyabs (Qiangic)

- *æ-* 'up'
- *næ-* 'down'
- *kə-* 'upstream'
- *nə-* 'downstream'
- *læ-* 'towards the left river bank or to higher elevation'
- *və-* 'towards the right river bank or to lower elevation'
- *rə-* 'indefinite direction'

## Kosraean (Micronesian)

- *-Ack* 'up, ashore, upstream'
- *-yac* 'down, downstream, upside down'
- *-lah* 'away, off, out, back'
- *-Acng* 'new location'
- *-ma* 'hither'
- *-oht* 'hence'
- *-elihk* 'in all directions'
- *-cni* 'to one place, in one direction'

## Georgian (Kartvelian)

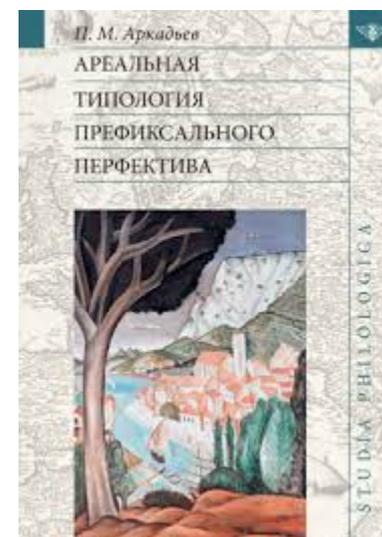
- *a(γ)-* 'up'
- *da-* 'down'
- *še-* 'in'
- *ga(n)-* 'out'
- *ča-* 'down into'
- *ga(r)da-* 'across, through'
- *c'a(r)-* 'away'
- *mo-* 'hither'
- *mi-* 'away'

## C+S Quechuan (reconstructed)

- *\*-rku* 'up'
- *\*-rpu* 'down'
- *\*-yku* 'in'
- *\*-rqu* 'out'

# Other terms: preverbs

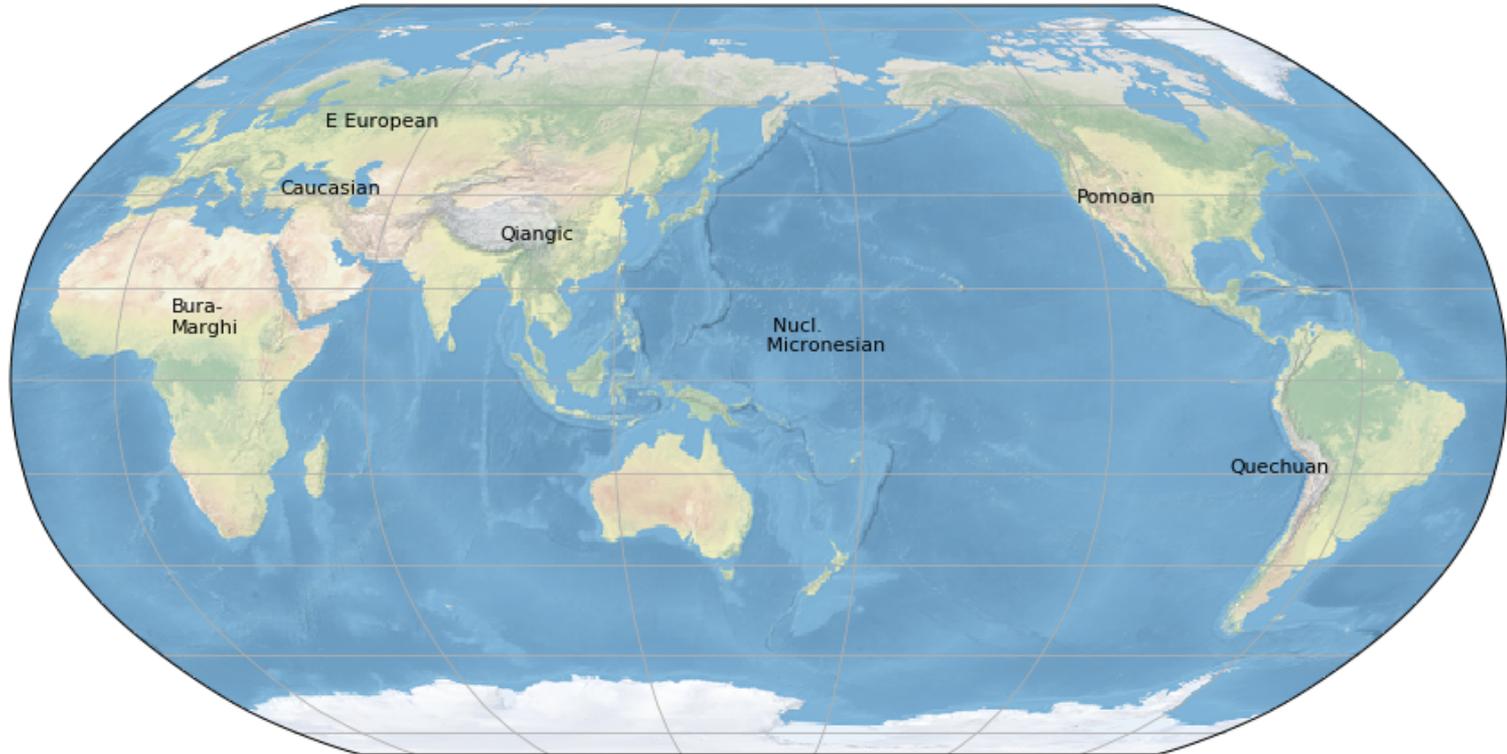
- Preverb is a common term in Indo-European linguistics but
  - is wider than directionals in that it can include items that do not denote directions
  - is narrower than 'directionals' in that it only applies to elements before the stem



# Other terms: satellites

- Talmy (2007) defines “satellite (to the verb)” as “any constituent other than a nominal complement that is in a sister relation to the verb root”
- Examples are “English verb particles, German separable and inseparable verb prefixes, Latin or Russian verb prefixes, Chinese verb complements, Lahu non-head ‘versatile verbs’ ..., Caddo incorporated nouns, and Atsugewi polysynthetic affixes around the verb root”.
- This term is also more inclusive than “directional”, and is often used in an even wider sense

# The seven clusters



# The seven clusters

## East European cluster

**Core:** Slavic(IE)

**Periphery:** Baltic, Finno-Ugric, other IE varieties

prefixal

## Micronesian cluster (AU)

**Core:** Kosraean+Ponapeic (4)

**Possible:** other Nuclear  
Micronesian

suffixal

## Caucasian cluster

**Core:** Kartvelian, Ossetic (IE)

**Possible:** some Nakh-Dagestanian

prefixal

## Pomoan cluster

**Core:** Kashaya (1)

**Possible:** other Pomoan (6)

prefixal

## Bura-Marghi cluster

(AA)

**Core:** Marghi Central

**Possible:** other Bura-Marghi lgs

suffixal

## Qiangic cluster (ST)

**Core:** Qiang, Gyalrongic, Ersuic, †Tangut

**Periphery:** other Qiangic, some Tibetic

prefixal

## Quechuan cluster

**Core:** S+C Quechuan (20)

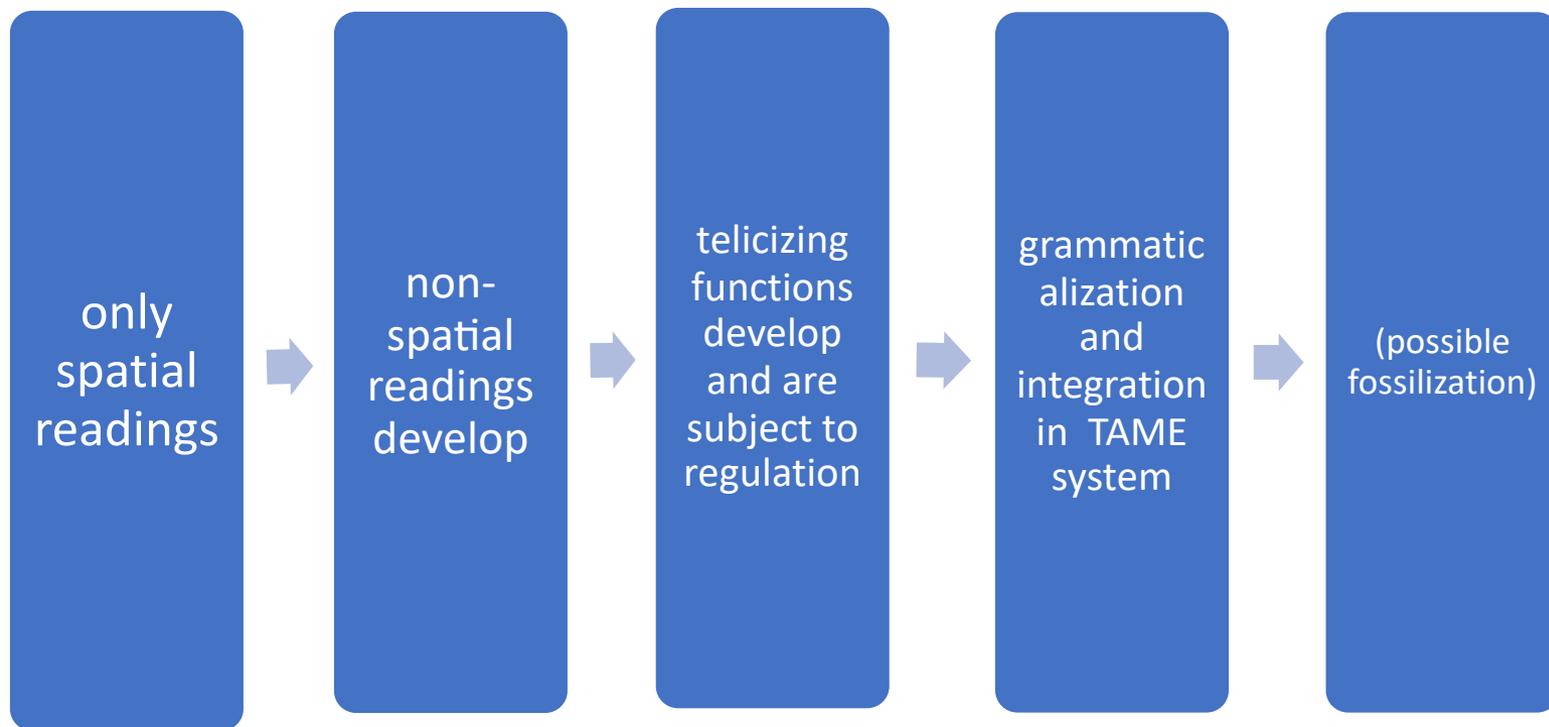
**Periphery:** Aymaran

suffixal

# Forget Slavic

- The phenomena looked at here deserve to be studied in their own right rather than being seen as "Slavic-like aspect systems".
- My strategy is therefore to ignore Slavic for a while and look for the features that unite the other clusters but also for possible variation in the systems.
- When returning to the Slavic systems, it may well turn out that they once more are the "odd ones out".

# Stages



# The standard view of grammaticalization

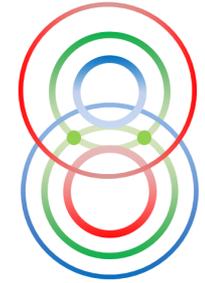
- Wikipedia: "Simply said, grammaticalization is the process in which a [lexical word](#) or a word cluster loses some or all of its lexical meaning and starts to fulfil a more grammatical function."

# Special features of the grammaticalization of directionals

- In the grammaticalization of directionals,
  - we find the joint grammaticalization of some or all the members of a closed set of items (rather than of just one word)
  - the choice between the different members of the set is largely determined by what lexical item they are combined with...
  - ... and maybe semantically motivated or idiosyncratic
  - the grammaticalized items may retain their original functions in some contexts (e.g. when used with verbs of motion) or combine the original meaning with the acquired grammatical function

# Characteristics of grammaticalized directionals

- Grammaticalized directionals are usually bound but can be either prefixal or suffixal
- They tend to occupy the most peripheral slot in the verb...
- ...although some elements such as negation can be outside them



# Entanglement

- I use the term **entanglement** for a situation when two elements of different origin and (often) different positions come to be used together to mark a gram

German past participles:

(hat) **ge**-arbeite-**t**

'(has) worked'

*ge-* and *-t* have historically nothing to do with each other but in most cases both are obligatory and the omission of one of them does not lead to a change in meaning

# Quasi-entanglement

- Not seldom two markers tend to occur together but the omission of one of them is given a special interpretation.
- It is well known that imperfective forms in various languages can be given conative interpretations (an action was initiated but not completed).
- In some languages, however, these interpretations are found with perfective verb forms when these occur without directionals



# Examples of quasi-entanglement: conative readings

- In Georgian (Kartvelian), Aorist (past perfective) forms are normally prefixed but if the prefix is left out the verb may (among other things) obtain a conative reading (the event "did not lead to its natural conclusion, thus remaining incomplete" (Hewitt 1995,160)), as in

v-rek-e, v-rek-e, magram ver da-v-rek-e  
'I rang, rang but couldn't ring up'

- In Marghi Central, Past forms of Perfective verb stems (i.e. containing directional suffixes) mean 'sb. actually did (and finished the action)'. With Imperfective (suffixless) verb stems, they mean that 'sb. started the action but did not finish/succeed':

àhér(é)r yú 'I took it' : àhér yú 'I tried to take it'  
(Hoffmann 1963, 200)

# The Qiangic cluster

- About 25 living Sino-Tibetan languages spoken in SW China, plus the extinct Tangut, the language of the medieval Tangut empire
- Generally not used as written languages (except Tangut!); no bible translations
- Many recent grammatical descriptions



# Qiangic: general tendencies



- Directional prefixes interact with other TAME marking, which may be suffixal, prefixal or stem-internal
- Directionals tend to be obligatory in the perfective but also sometimes for instance in the perfect
- Directionals are usually obligatory in the imperative (which means neutralization of aspectual distinctions) but for negative imperatives rules differ
- Directionals are bound and are usually in the first slot of the verb



# Different kinds of interaction in Qiangic systems

- In some languages (Tangut, N. Qiang), directionals are the only markers in the perfective
- Northern Qiang:

lausə qa xe-ʂa.  
teacher 1SG scold-1SGU  
‘The teacher is scolding me.’

lausə qa nə-xe-ʂa.  
teacher 1SG DIR-scold-1SGU  
‘The teacher scolded me’



# Different kinds of interaction in Qiangic systems

- In others (S. Qiang, Gyalrongic), perfectives are also indicated by the choice of argument markers, tone and/or verb stem.

Longxi Qiang  
(Zheng 2016)

1SG person marking *à* for imperfective aspect:

(755) qà fùtoǔ tiè=*à*.

1SG lima.bean(CH) eat=1SG:IPFV

'I am eating lima bean.'(T10:2)

1SG person marking *sà* for perfective aspect:

(756) mòkà kùkú jì-ey=*sà*.

fire.stove inside IN-burn=1SG:PFV

'(I) burned (the white stone) in fire stove.'(T11:10)

# Different kinds of interaction in Qiangic systems

- In Gyalrongic, non-perfective markers tend to occupy the same slot as directionals, and are sometimes homonymous with them (but are not lexically determined)

ko - also directional  
'east/upstream'

*ŋā*    *tascōs*    *te*    ***ko-lât-ŋ***  
1SG    letter    one    IMPFV-put<sub>2</sub>-1SG  
[Father to Child] 'I WRITE a letter.' (Please do not disturb me)

*ŋā*    *tascōs*    *te*    *na-lât-ŋ*  
1SG    letter    one    PFV-put<sub>2</sub>-1SG  
'I wrote a letter.'

# The case of imperatives

- One peculiar feature of many of the Qiangic languages is the obligatoriness of directional prefixes in imperatives.
- This is a feature of considerable age and stability, given that it is found also in Tangut, the language spoken in the medieval West Xia empire.
- It tells us something about the status of directionals in the Qiangic:
  - they must have a sufficient degree of lexical generality for the rule to work
  - they have been grammaticalized beyond perfectivity marking

# The case of prohibitives

- The obligatoriness of directionals in imperatives does not hold for negated imperatives (prohibitives), where they are claimed to be optional in most grammars
- Interestingly, in Slavic languages, negated imperatives tend to be imperfective only, except for expressing warnings of unintended consequences.

# Example of integration of directionals into a complex TAME marking

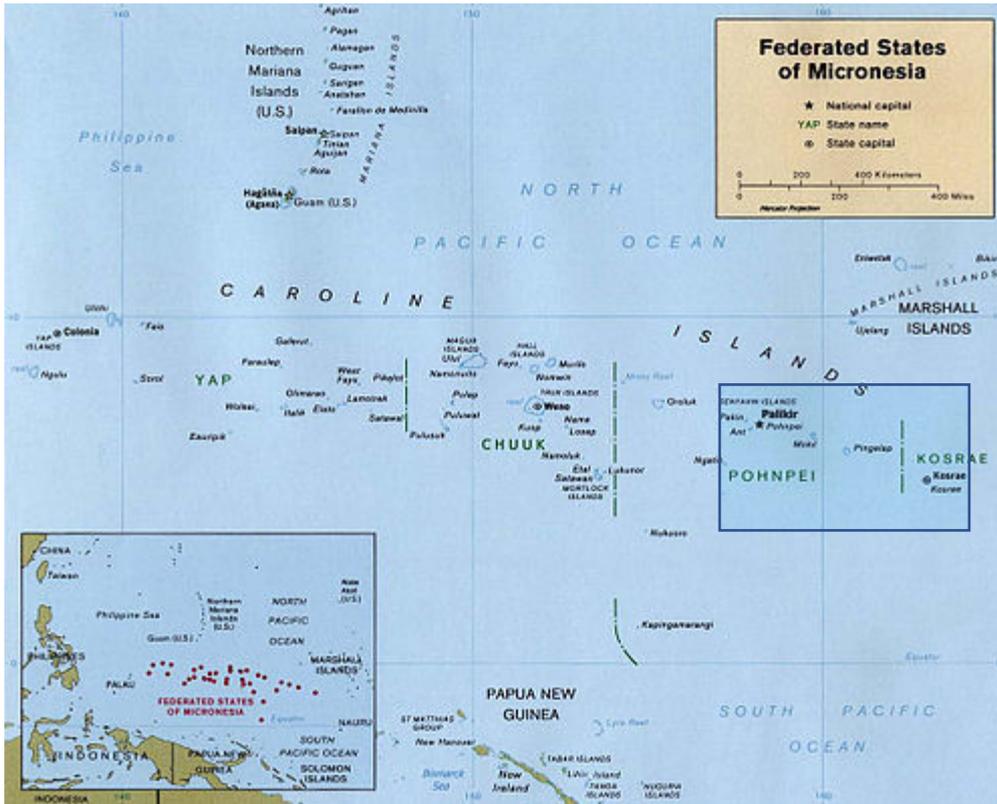
- The "prospective" in Situ (Qiangic) is formed by a directional prefix + *po* + stem 2 of the verb as in:

*k<sup>h</sup>r̄i*      *ko-po-smên*

rice      PFV-PROS-be.cooked<sub>2</sub>

[The speaker opens the lid of the cooker and then says] 'The rice is about to be cooked.'

# Focusing on the Micronesian cluster



## Kosrae

Kosrae, formerly known as Kusaie or Strong's Island, is an island in Federated States of Micronesia. The State of Kosrae is one of the four states of the Federated States of Micronesia, and includes the main island of Kosrae and a few nearby islands and islets, the most significant of which is inhabited Lelu Island. [Wikipedia](#)

**Area:** 111.3 km<sup>2</sup>

**Elevation:** 634 m

**Population:** 6,616 (2010)

**Capital:** Tofol



[https://www.researchgate.net/publication/327681990\\_The\\_Kosrae\\_Shoreline\\_Management\\_Plan\\_-\\_Repositioning\\_for\\_Resilience](https://www.researchgate.net/publication/327681990_The_Kosrae_Shoreline_Management_Plan_-_Repositioning_for_Resilience)

# Two dimensions of grammaticalization: Generality and obligatoriness

- Lexical generality: do all lexical items partake in the pattern?
- Obligatoriness: must the pattern be used whenever the criteria for its use are fulfilled?

# Generality and obligatoriness in Kosraean directionals



- In Kosraean (Austronesian->Nuclear Micronesian), directionals are suffixed to verbs.
- Lee (1975) says:

The term **aspect** is used to refer to the different stages of an action or a state. There are two main aspects in Kusaian: **incomplete** and **completed**. Incomplete aspect denotes that an action or a state is not finished but is still in progress. Completed aspect denotes that an action or a state has reached its goal, or has been completed.

- ...and that completed aspect is usually expressed by directional suffixes
- But how general is it?

# Kosraean vs. Russian

- There is a full Bible translation into Kosraean
- I have tried to compare some Russian aspectual verb pairs with the corresponding verbs in Kosraean with regard to aspect choice in the Bible translations
- Most verbs are more or less heavily skewed towards one pole of the perfectivity-imperfectivity distinction so it is not so easy to find ones that have a sufficient number of the "recessive" alternative – even in a corpus of almost a million words

# Perfective quotients in Russian and Kosraeian (occurrences in HB+NT)

## Russian

- *stroit' :postroit'* 'build' 0.61
- *brat' :vzjat'* 'take' 0.9
- *umirat' :umeret'* 'die' 0.88

## Kosraeian

- *musa(i) : musaela* et al. 'build' 0.45
- *eis : eisla* 'take' 0.28
- *misa* 'die' n/a

- The verbs for 'build' have reasonably similar quotients; it appears that the suffixed variety in Kosraeian is used relatively systematically in perfective-favouring contexts
- In the case of 'take', Russian has a very high quotient and Kosraeian a rather low one; the suffixed option is used mainly in the sense of 'take away'
- For 'die', no suffixed alternative exists, although the perfective is very dominant in Russian

# Lithuanian excursus

- Russian

- *stroit'*:*postroit'* 'build' 0.61
- *brat'*:*vzjat'* 'take' 0.9
- *umirat'*:*umeret'* 'die' 0.88

- Kosraeian

- *musa(i)*: *musaela et al.* 'build' 0.45
- *eis*: *eisla* 'take' 0.28
- *misa* 'die' n/a

- Lithuanian

- *statyti*:*pastatyti* 'build' 0.74
- *imti*:*paimti* 'take' 0.50
- *mirti*:*numirti* 'die' 0.13

# Kosraeian – not fully grammaticalized perfectivity

- The comparison with Russian suggests that directional suffixes have not developed into fully grammaticalized perfectivity markers
- The degree to which directionals are used is heavily lexically dependent
- With some verbs, suffixed forms are used only with special meanings
- Some verbs do not take suffixes and seem to be outside the perfectivity distinction altogether

# How grammaticalized are the directionals in the seven clusters?

- It is sometimes very difficult to tell from grammars how far the system has come on the grammaticalization path.
- The same or similar systems are often described in different ways.
- Corpora of sufficient sizes are not always available so it is difficult to evaluate claims made in grammars.
- It is also not always clear what criteria to apply.

# How grammaticalized are the directionals in the seven clusters?

- We know from European languages that lexical and grammatical elements are intertwined in the expression of aspectual distinctions in sometimes confusing ways.

# How grammaticalized are the directionals in the seven clusters?

- Of the clusters under study, a relatively high degree of grammaticalization can be argued for the Qiangic and Caucasian clusters, and maybe also for Marghi.
- The systems in the Quechuan cluster is described by Hintz as containing elements which are spread all over the grammaticalization scale.
- In the case of the other clusters, the degree of grammaticalization is hard to decide.

## Back to Slavic: is it different?

- After discussing the other systems of boundary perfectivization, we can now return to Slavic (and the other East European languages)
- Do they fit into the general pattern?
- One observation is that the set of boundaries involved is wider in Slavic than in the other systems that we have looked at.

# Indo-European preverbs/verb particles

- The preverbs of IE languages include directionals but there are also many other meanings represented
- This is in itself not unique

## Sanskrit

- *ati* beyond, over
- *adhi* above, besides
- *anu* after, along, alongside
- *antar* interior, within
- *apa* **down**, off, back
- *api* unto, close upon or on
- *abhi* to, towards, **into**, over, upon
- *ava* off, away, **down**, down from
- *ā* near, near to, towards- change of direction
- *ud* **up**, upwards, upon, on, over, above
- *upa* towards, near to, by the side of, with
- *ni* **down**, in, into
- *nis* **out**, forth
- *parā* **away**, forth
- *pra* forward, onward, forth, fore
- *prati* back to, in reversed direction
- *pari* round about, around
- *vi* asunder, away, **out**
- *sam* along, with, together

# Spatial proclitics in Nisgha (Tsimshianic)

Many North American languages have large sets of spatial morphemes which are affixed or cliticized

<i>lu·</i> = 'in, inside'	<i>tqali·</i> = 'up a river, upstream'	<i>lim</i> = 'in front/toward/expecting'
<i>?ak<sup>w</sup>i·</i> = 'outside, at the side'	<i>kisə</i> = 'downstream'	<i>[t]k̄u</i> = 'around in a circle'
<i>ksə</i> = 'out of something'	<i>caqa</i> = 'across, affording passage'	<i>[t]k̄utk̄u</i> = 'all around something'
<i>čilim</i> = 'into something'	<i>sqa</i> = 'across, barring passage'	<i>haspa·</i> = 'concave side up'
<i>tqan</i> = 'opening, ajar'	<i>la·x</i> = 'equally at both ends'	<i>pəlxsim</i> = 'concave side down'
<i>laqam</i> = 'into something at top'	<i>ka·t</i> = 'lopsided, pulling to side'	<i>k̄inx̄t</i> = 'upside down, head down'
<i>laqam</i> = 'in the water'	<i>k̄ila·</i> = 'past (in space or time)'	<i>haltim</i> = 'up from the ground'
<i>tuk<sup>w</sup>s</i> = 'out of something from top'	<i>hak<sup>w</sup>in</i> = 'closer'	<i>[t]q̄ayks</i> = 'close to the ground'
<i>ni·</i> = 'on something horizontally'	<i>wətin</i> = 'further away'	<i>pa[qa]yt</i> = 'in half crosswise'
<i>laqaltip</i> = 'under, without corner'	<i>[t]q̄al</i> = 'flat/flush against'	<i>k̄is</i> = 'from one place to other'
<i>k̄iltip</i> = 'under the bottom of'	<i>sa·</i> = 'off, away from something'	<i>k<sup>w</sup>ti</i> = 'all over, randomly'
<i>m̄in</i> = 'upward'	<i>k<sup>w</sup>ils</i> = 'back'	<i>k̄ilq̄al</i> = 'all over, completely'
<i>t̄ip</i> = 'downward'	<i>spə</i> = 'horizontally off'	<i>stax</i> = 'on one side only'
<i>paχ</i> = 'uphill'	<i>x̄lip</i> = 'at one end, at tip'	<i>sax</i> = 'together'
<i>yaqa</i> = 'downhill'	<i>x̄cə</i> = 'crosswise, across grain'	<i>luk<sup>w</sup>tə</i> = 'right under'
	<i>wisin</i> = 'lengthwise, along grain'	<i>maq̄lə</i> = 'right over'
	<i>t̄xas</i> = 'along whole length'	
	<i>x̄pə</i> = 'at halfway point'	
	<i>sk<sup>w</sup>in</i> = 'at end of line or row'	
	<i>k̄imi·</i> = 'to the rear'	
	<i>lim</i> = 'away from, esp. wall'	
	<i>k̄ina·</i> = 'left behind'	
	<i>loq̄ali·</i> = 'behind, at end'	

from Mithun, Languages of Native North America

# Russian preverbs

- However, Slavic seems unique in having grammaticalized so many different bounders
- ... going outside the normal range of directionals

## Russian preverbs

- do-
- iz-
- na-
- nad-
- nedo-
- niz-
- o-
- ob-
- ot-
- po-
- pod-
- pre-
- pri-
- pro-
- raz-
- s-
- u-
- v-
- v(o)z-
- vy-
- za-

# Grammatical status of bounders

- Are directionals and other bounders
  - derivational (traditional view in Slavic)?
  - inflectional (as seems to be the case e.g. in Qiangic)?
  - elements of compounds (traditional view in Germanic)?
  - lexical affixes (as in North American languages)?
- The answer depends on how far they have got in the grammaticalization process...
- ...but maybe also on grammatical traditions

# Integration into the general TAME system

- What we can see in the other clusters is that directionals as bounders do not usually remain wholly separate from the TAME system in general but become in various ways integrated in it.
- The integration perspective may be applicable also to Slavic to a greater extent than previously realized



**Much more remains  
to find out!**