Basic event structure: States and endpoints

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AUTOTYP

Intellectual background:

Nedjalkov 1969: Wordlist approach to lexical typology

Nedjalkov ed. 1988:

Resultative constructions;

Defining constructions based on notions like states, events, transitions;

Centrality of the lexicon in the typology

Event structure: Received view

[[[state] inchoative] causative]

e.g. [[[sit] sit down] seat, sit, have sit, …]

[[[sitzen] sich setzen] setzen]

[[[сидеть] садиться/сесть] усаживать/усадить, etc.]

Event structure: Received view

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But in many languages, for most verbs, the state is not basic.

The inchoative is.
Or inchoative = state, differentiated only by TAM inflection.

Aspect: Received view (especially for Slavic aspect)

Basic predicate has a lexical core but no endpoints

Aspect provides endpoints:

realizes inherent ones	pisat'	=>	napisat' dopisat'
adds imposed ones	pisat'	=>	popisat'
likewise:	čitat'		pročitat' dočitat' načitat' počitat'

Event structure: Inchoative portion as basic

Occasional verbs in Russian:

'sit'	state	sidet'	sid-e-	Proto-Slavic	*sēd-ē-
	incho.	sest'	sed-		*sēd-
	caus.	u-sadit'	-sad-i-		*sād-ī-

A number of verbs in Ingush (Nakh-Daghestanian):

'sit'	state	ʕa+xei-na	d.aagha	
		down+sit-CV	D.sit	'having sat down, is sitting'
	incho.	ʕa+xou		
		down+sit		

Event structure: Inchoative and state equally basic

Occasional verbs in Russian:

… Potom on ponjal. then he understood.PERF		'understood', 'caught on'
Aha. Ø Ponjal. Mhm. understood.PERF		'Oh, right, I understand'

and English:

Then he finally got it.	Change of state, inception.
He just doesn't get it.	State

Many verbs in Ingush (Nakh-Daghestanian, Caucasus), e.g.:

Voudz (suona yz) V.know 1sg.DAT 3sg.NOM I know him.	Veizar (suona yz) V.knew-AOR I recognized him/got acquainted.

Outline

Introduction

- Aktionsart types; gross event structure types
- Base and basic
- Examples of different bases in different languages

Survey: What is morphologically basic in which languages? overall?

- Criteria; questionnaire; survey design

Results

- Frequencies. Genealogical and geographical distribution.

Implications

- East-west cline
- Europe is typologically unusual
- Correlations with other typological variables

Three things to distinguish in event structure typology:

Aspect, aktionsart, event structure

Aspect types

Imperfective: The event or action in its development

Perfective: Endpoints realized, highlighted, or imposed

Usually figures as an element in tense meanings
(e.g. aorist and perfect vs. present and imperfect)

Sometimes self-standing, as in Slavic languages

Aktionsart types

State		
Bounded state		(Durative)
Telic		(Achievement, accomplishment)
Ingressive		(**Ingressive** stative)
Punctual		(Semelfactive, simulfactive)

Lexical event structure types (Better term needed.)

Static	State, bounded state.
Dynamic	Ingressive, telic, punctual. (Anything with one endpoint.)
Causative	(An argument structure type, but always closely bound up with Aktionsart and event structure.)

Notes on terminology for lexical event structure types

Static	State, bounded state.
Dynamic	Ingressive, telic, punctual. (Anything with one endpoint.)
Causative	(An argument structure type, but always closely bound up with aktionsart and event structure.)
Static, dynamic:	Transparently connected to *state* and endpoints respectively, but **different from any established Aktionsart terminology.**
Causative	**Semantic** causative. Not a derivational type.
And, repeated:	Better term needed for "lexical event structure (type)". Abbreviation used here: **LES.**

Basic, or base, lexical event structure (base, or basic, LES)

Base of derivational paradigm. (Blue = base.)

		Static	*Dynamic*	*Causative*
Russian	'sit'	sid-e-	sed-	-sad-i-
Ingush	'know'	d.ouz-	d.ouz-	d.ouza-d.u / d.ouz-iit-
Ingush	'sit'	ʕa-xei-na d.aagha	ʕa-xou	ʕa-xoa-d.u / ʕa-xei-t-
Spanish	'sit'	estar sentado	sentar=se	sentar
Spoken English		sit	sit	sit
or		set	set	set

Base = derivational base.

The least derived form in the derivational paradigm.

And/or: The form that the other two are derived from.

Some more examples

		Static	*Dynamic*	*Causative*
Ingush	'fly'	ghattaa liel having.flown.off go.around	ghott fly off, away	ghotta-d.u fly.off-D.CAUS
Avar	'sit'	ʕodo.b cch'e- on.ground stop	ʕodo.b cch'e-	ʕodo.b cch'e-z-abi- on.ground stop-CAUS
	'stand'	b.aqun cch'e- B.vertical stop	b.aqun cch'e-	b.aqun cch'e-z-abi- B.vertical stop-CAUS
	'lie'	b.egi-	b.egi-	b.egi-z-abi-
Mongolian	'sit'	suu-	suu-	suu-lga
Chukchi	'sit'	waqo-twa-	waqo-	ry-waqo-wy-

Some more examples

		Static	*Dynamic*	*Causative*
Ossetic	'sit'	bad-	ær-bad-	(ær-)bad-yn kæn- sit-INF make-
	'stand'	læww-; Dig. ist-	(s-)yst-	s-yst-yn kæn-

If the perfective prefixes are inflectional, dynamic is also basic.

Welsh	'sit'	eistedd	eistedd	gosod mewn 'put in', eisteddle
	'stand'	sefyll	sefyll	dodi 'put'
	'lie'	gorwedd	gorwedd	gosod, dodi both 'put'

Suppletive causative.

Some more examples

		Static	*Dynamic*	*Causative*
Central Alaskan Yup'ik	'sit'	aqum-ga-	aqum-e-	n.d. but presumably derived
	'stand'	nange-ngqa- nekv-a	nanger-t- nekv-e	" " " " " " " "
	'lie'	ina-ngqa-uq	inar-t-uq	inar-t-aa (all 3 past tense)

Acategorial roots: aqum-, nanger-, nekev-, inar-

Such sets are equipollent (all forms derived; none is basic).

WARNING: Partly my segmentation.

Typology

Preceding examples have shown that derivational bases vary from verb to verb and language to language.

Typology for paradigms: Base-static, base-dynamic, base-ingressive, base-causative, etc.
Or: Static base, dynamic base, etc.

Typology for whole languages: The base type for most paradigms.

> Statistically sound description: The base type for significantly more than the mean (mean calculated within areas and worldwide, for each event structure type).

Or the default base type (language by language)

Survey design: Potentially **ingressive** predicates

Wordlist: 3 posture verbs 'sit', 'stand', 'lie'
2 cognition/perception verbs: *
'know' (*wissen*);' realize, come to know'; 'let know, inform'
'know' (*kennen*); 'recognize; get acquainted'; 'acquaint'
3 color terms ('white', 'black', 'red')
2 temperature states ('cold', 'hot, warm')
(begun) 'dead' and 'die'
(planned) 2 psychology predicates: 'afraid' and 'angry'

* The cognition/perception verbs in European languages rarely look like a set. But cf. Turkish:

kennen	tanï-mak	tanï-mak	tanï-t-mak

Method

- Look up the items of the wordlist in bilingual dictionaries (e.g. Russian-Mongolian and then Mongolian-Russian; also consult bilingual dictionaries in German and/or Turkish where available; English is not preferred for ordinary dictionaries). Better: a modern linguistic analysis.

  (Items of the wordlist = all three LES types.)

- Or elicit. Or consult an expert. Or two or three of these.

- Look up (elicit, confer on) not just that gloss but its synonyms; and not just that target word but all likely candidates for its immediate derivational paradigm.

- Determine the base.

Labor-intensive work.

Technical apparatus

Wordlist. (Blanks in a document file; fill out, expand.)

Survey instructions and protocol.
Includes mention of some additional event structure types, e.g.:
'be/become known, apparent, evident' (impersonal)
and its causative ('make known', 'let it be known that …')
permansive ('stay sitting, keep on sitting')
and its causative ('keep s.o. standing'), etc.

Database. (Spreadsheet, for this pilot study.)

Sample. 83 languages so far (not all datapoints from all);
northern Eurasia well covered, North America less, a few others

Data sheet: Section of blank sheet

sit	stat.
	dyn.
	st=dyn
	caus
stand	stat.
	dyn.
	st=dyn
	caus
lie	stat.
	dyn.
	st=dyn
	caus
kennen	stat.
	dyn.
	st=dyn
	caus
wissen	stat.
	dyn.
	st=dyn
	caus

Data sheet: Example from Kazakh

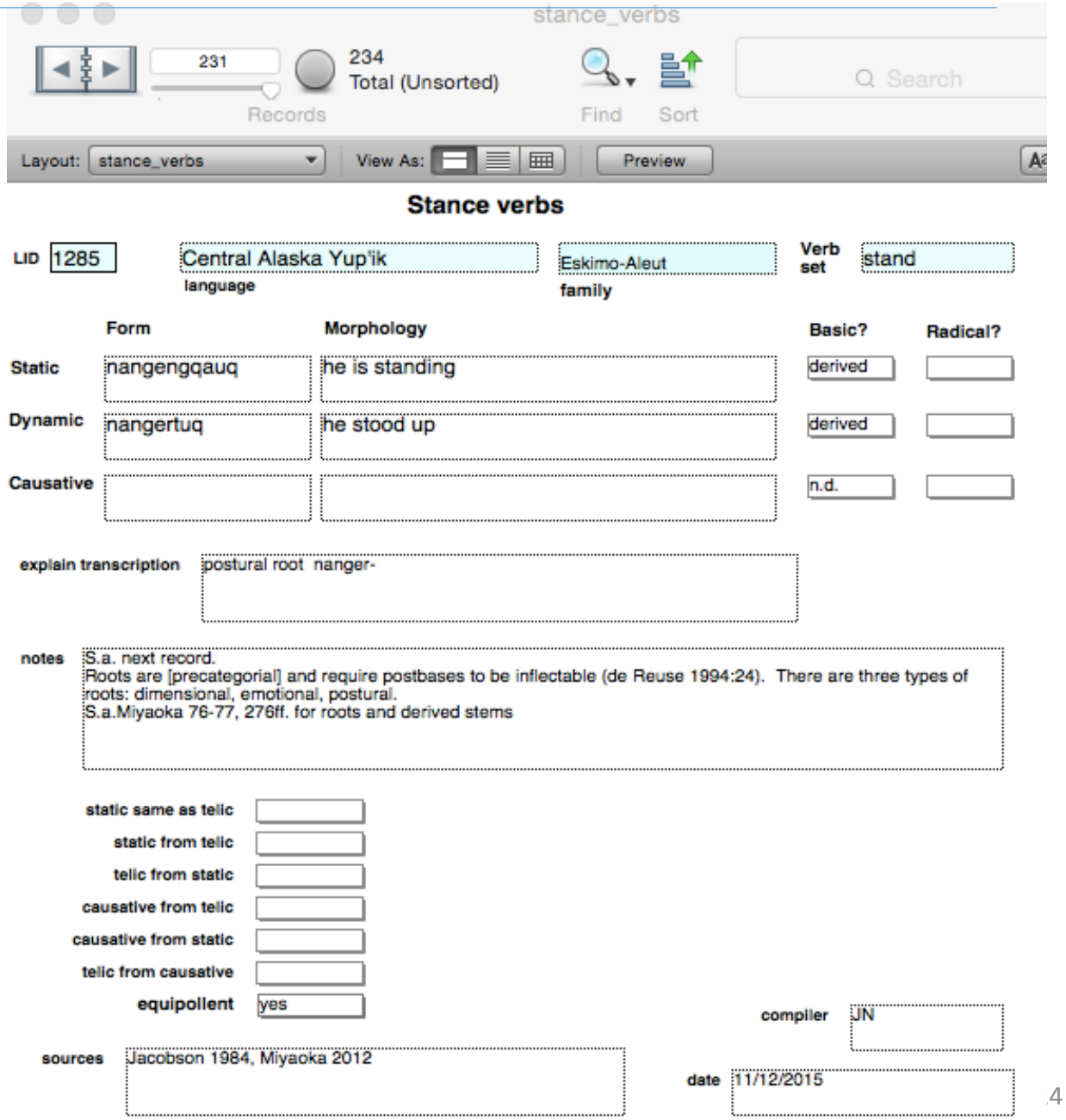
kennen	stat.	tan-ys bolu	(tanys знакомый, знакомство)
	dyn.	tan-ys-u	
		tan-u 'recognize'	
	st=dyn		
	caus.	tanys-tyr-u, tanys jetu	
	stat.	bilu	
	dyn.	bil-is-u	
	(Also 'знакомый': ashna, tiletin)		

Bases:	tan-	'recognize'	dynamic
	bil-	'be/get acquainted'	st=dyn

wissen	stat.	**bilu** білу	
	dyn.	**bilu** познать	

Base:	bil-	'know/realize'	st=dyn

Database:
Sample page
(posture verbs)



stance_verbs

231 Records | 234 Total (Unsorted) | Find | Sort | Search

Layout: stance_verbs | View As: | Preview

Stance verbs

LID 1285 | Central Alaska Yup'ik (language) | Eskimo-Aleut (family) | Verb set: stand

	Form	Morphology	Basic?	Radical?
Static	nangengqauq	he is standing	derived	
Dynamic	nangertuq	he stood up	derived	
Causative			n.d.	

explain transcription: postural root nanger-

notes: S.a. next record.
Roots are [precategorial] and require postbases to be inflectable (de Reuse 1994:24). There are three types of roots: dimensional, emotional, postural.
S.a.Miyaoka 76-77, 276ff. for roots and derived stems

static same as telic:
static from telic:
telic from static:
causative from telic:
causative from static:
telic from causative:
equipollent: yes

compiler: JN

sources: Jacobson 1984, Miyaoka 2012

date: 11/12/2015

Comment on survey

Excellent dictionaries for many north Eurasian and Caucasian languages.

(Very good, consistent lexicographic tradition in Russia, especially mid 20th century. Good publication record for many languages of the USSR. Recent Daghestanian dictionary project. Various good linguistically sophisticated fieldwork-based dictionaries in recent years.)

Spotty record for Australia, New Guinea.
Some very good dictionaries for Africa.

Poor record for North America.

Poor = impossibiity of recovering event structure and sometimes also argument structure from entries.

(But points of brilliance: Hill, Thompson & Thompson, Young & Morgan, Aoki)

Survey results: By LES set (more precisely, base of LES set)

Bold = plurality (and close second if any) for set. Entries are numbers of verbs with that LES basic.

	Static	Dynamic	Stat=Dyn	Caus	??	Total	Total known
Posture, all languages	54	41	72	25	25	216	191
Cognition, all languages	22	3	20	0	2	47	45
States, all languages	130	10	18	0	44	202	158
Total	206	54	110	25	71	465	394

$p < 0.0001$
X2=80.05
d.f.=2,
on static vs. nonstatic

Percent (of known):				
Posture, all languages	0.28	0.21	**0.38**	0.13
Cognition, all languages	**0.49**	0.07	**0.44**	0.00
States, all languages	**0.82**	0.06	0.11	0.00

Survey results: By continent

	Static	Dynamic	Stat=Dyn	Causative	??
W Eurasia	**142**	34	50	24	20
NE Eurasia	48	11	**57**	1	17
N America	**16**	9	4	0	34
Caucasus	**35**	15	22	0	7
N Asian Pacific Rim	**28**	9	8	0	12
Same, percent of known:					
W Eurasia	**0.57**	0.13	0.20	0.10	
NE Eurasia	0.41	0.09	**0.49**	0.01	
N America	**0.55**	**0.32**	0.13	0.00	
Caucasus	**0.49**	0.21	**0.30**	0.00	
N Asian Pacific Rim	**0.63**	0.20	0.17	0.00	

$p = 0.0121$
X2=8.83,
d.f.=2,
on static vs. nonstatic

Survey results: Posture verbs by continent.

Entries are percentages.

	N	Static	Dynamic	Stat=Dyn	Caus	Other, ??
Europe (to Volga)	33	**0.37**	0.14	0.14	**0.24**	0.11
Caucasus	11	0.04	0.26	**0.49**	0.00	0.20
N Inner Asia	16	0.12	0.02	**0.80**	0.02	0.04
N Pac Rim	6	0.22	**0.50**	0.17	0.00	0.11
N America	6	**0.33**	**0.44**	0.06	0.00	0.17

Survey results: Cognition verbs by continent.

Entries are percentages.

	Static	Dynamic	Stat=Dyn	Caus	Other, ??
Europe (to Volga)	**0.66**	0.06	0.27	0	0.00
Caucasus	0.13	0.00	**0.88**	0	0.00
N. Inner Asia	0.14	0.14	**0.71**	0	0.00
N Pac Rim	0.00	0.00	**1.00**	0	0.00
N America					

Survey results: State verbs by continent.

Entries are percentages.

	Static	Dynamic	Stat=Dyn	Caus	Other, ??
Europe (to Volga)	**0.82**	0.05	0.10	0	0.03
Caucasus	**0.83**	0.15	0.03	0	0.00
N Inner Asia	**0.58**	0.00	0.29	0	0.13
N Pac Rim	**0.67**	0.00	0.04	0	0.29
N America	**0.23**	0.02	0.06	0	**0.69**

Possibly a better typology and tabulation:

Compare just static vs. non-static (non-static = dynamic + static-dynamic)
(maybe **this** is what should be called static vs. dynamic)

	Static	Nonstatic	
Posture	57	**113**	
Cognition	22	23	
States	**130**	28	$p < 0.0001$

	Static	Nonstatic	
W Eurasia	**145**	107	
E Eurasia	48	**69**	
N America	16	13	$p = 0.0121$

Geographical and historical implications

Areal distribution:

Base-static predominates in Europe.

Base-causative in Germanic, Slavic, Romance, Albanian, Greek.

(Rare worldwide.)

Dynamic=static (ingressive) predominates in the Caucasus and northern Asia (east of the Volga).

North America undersampled but base-dynamic unusually strong.

Temporal:

The base-causative type develops in Late Proto-Slavic to early attested Slavic, reversing a base-static and base-dynamic type.

PIE was mixed base-static and base-dynamic.

Gołąb 1968, Nichols 2010, 2012, 2014, Rix ed. 2001

Lexical-typological correlations

Posture verbs: Ingressive and dynamic types favored worldwide.

Cognition verbs: Ingressive type strongly favored worldwide.

States: Static type strongly favored worldwide.

Adjectives very likely here.

Likely typological correlations (hunches, or at best hypotheses)

Base-transitive in the causative alternation (argument structure) associated with base-dynamic and base-causative LES.

Base-dynamic correlates with paucity or lack of adjectives as a word class.

Base-static correlates with high-manner motion verb type.

Lexical stability:

- Base-causative associated with high rate of lexical repacement.
  - Likewise base-dynamic, sometimes? (See Romance posture verbs.)
- Otherwise, posture verbs tend to be stable.
- In lexical renewal, the base is likely to be replaced. (Think Kuryłowicz.)

Achievements and ingressives (Aktionsart) are in complementary distribution.

- Conditioning context: something fundamental about the lexical status and nature of aspect, Aktionsart, LES, etc.

Possible dilemma

Consider base-static English:

Static	*Dynamic*	
know	realize	
	figure out	
	work out (how)	*(probably telic)*
	grasp	
	catch on	
	get it	and others

Possible dilemma

Consider base-static English:

Static	*Dynamic*	
know	realize	
	figure out	
	work out (how)	*(probably telic)*
	grasp	
	catch on	
	get it	and others

Analysis: English is so firmly base-static that it doesn't even have a dynamic counterpart to 'know', so it opportunistically recruits other verbs to fill in.

(This assumes that *non-base* is like *marked*, so defectivity identifies the marked member.)

Possible dilemma

Consider base-static English:

Static	*Dynamic*	
know	realize	
	figure out	
	work out (how)	*(probably telic)*
	grasp	
	catch on	
	get it	and others

Or: English is strongly base-dynamic and has many dynamic verbs for 'know', all of which are neutralized in the static range.

(This assumes that *non-base* is like *marked*, so neutralization identifies the marked member.)

Possible dilemma

Consider base-static English:

Static	*Dynamic*	
know	realize	
	figure out	
	work out (how)	*(probably telic)*
	grasp	
	catch on	
	get it	and others

Or: English is strongly base-static and has no dynamic 'know'. However, most dynamic verbs (opportunistically recruited) can also be used statically:

He just doesn't get it. I realize you mean it. I can't figure out what happened.

Much less flexibility the other way: ? Finally I knew the answer.

This means even dynamic verbs "try" to be static.

Summary of this problem:

Three possible stories on what is base and what is not.

Big theoretical issues:

Does a gap identify a non-base? or can they occur in bases?
Does neutralization identify base as it identifies unmarked?
Do verbs flexibly extend their type from base to non-base? or vice versa?

Starting from precisely the meaning 'know', it seems clear that it is basic and lacks a precise dynamic counterpart.
'Know' is a very fundamental meaning, a good starting point for a lexical-typological analysis.
But it's just one word; how to justify a starting point?

Conclusions

The received view of event structure may be Eurocentric.

If base-dynamic and static=dynamic (ingressive) LES dominate elsewhere as they do in northeastern Eurasia

> (including great stability in Turkic and Mongolic, the ultimate spreading and contact languages)

then we should ask whether it isn't transitions, endpoints, etc. and not states that are basic to lexical meaning.

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