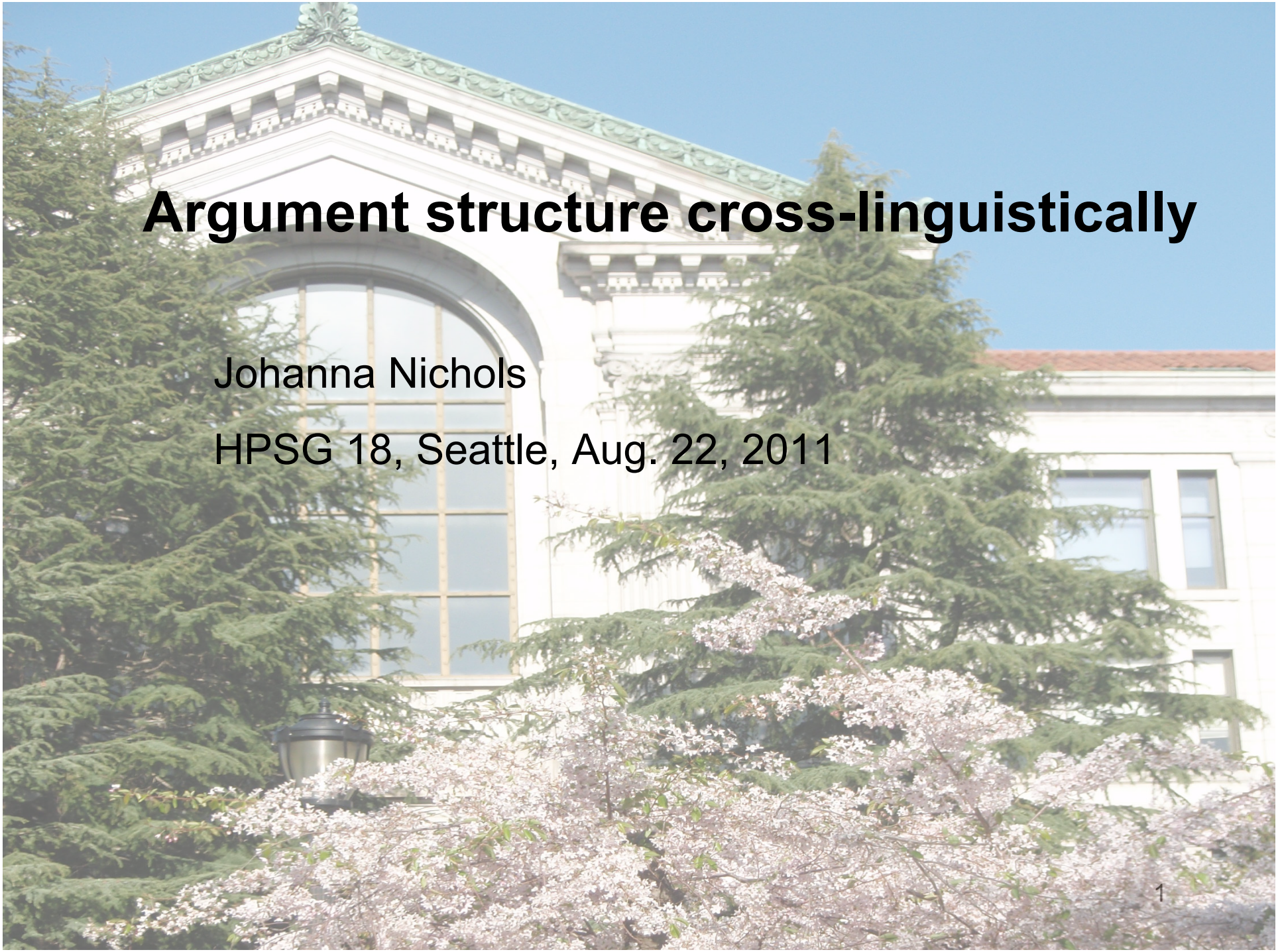


Argument structure cross-linguistically

Johanna Nichols

HPSG 18, Seattle, Aug. 22, 2011

Contents

Introduction: Analyzing argument structure cross-linguistically

Valence and alignment:
- Russian
- Ingush

Other supposed kinds of alignment: split-S; hierarchical

Other things that make argument structure look different:
- invisible arguments
- dummy arguments

Some recent and ongoing valence/alignment/argument structure projects
- -- notably, work on ditransitives

Theoretical perspective taken here

Typological
Also, the perspective of a language and language-family specialist

Where this tutorial fits in with selected other work:

Dixon 1979, 1994, etc.: S, A, O as cross-linguistically useful grammatical relations, superseding "subject" and "object".

Foley & Van Valin 1994, Van Valin & Lapolla 1997: Grammatical relations as construction-specific, semantic roles as verb-specific

Croft 2001: Grammatical relations as construction-specific and language specific; A, S, O not arguments but cognitive.

Bickel 2011: Multivariate definitions make construction-specific, language-specific grammatical relations commensurable. A, S, O are arguments.

My purpose is also to exhaustively analyze argument structure and valence patterns for two languages in which I have expertise, to show what questions and dilemmas come up. Theoretically closest to Bickel 2011. A, S, O are arguments; **not** construction-specific, **not** language-specific, but universal.

What kind of theory is typology?

Non-generative, declarative

Concerned chiefly with describing and explaining cross-linguistic distributions

Modeling is primarily by standard statistical methods (especially those of the population and biological sciences)

Emphasis on coding and codability: unambiguous, replicable classifications and definitions (which can be question-specific, project-specific, etc.)

Bottom-up ontology (always fundamentally revisable); assumptions: we will never observe all possible types, at any point a new phenomenon may necessitate a major ontological overhaul

Receptive in principle to the goals of formalizability and full implementation, though typologists are unlikely to ever do much of either. (Statistical methods serve many of the same objectives, and are grounded in mathematics.)

Atomistic: Individuals work on individual problems without an overarching effort to put everything into a coherent system. (Probably a practical rather than a principled decision.)

Multivariate: Accustomed to using crosscutting classifications and multiple inheritance hierarchies

Growing use of text corpora as sources of information to be described and explained

Argument structure is very simple

-- and cross-linguistically very consistent.

Close to universal.

Argument structure is very simple.

It follows straightforwardly from number of argument places (positions):

Places	*Arguments*	*Terminology*	*More terminology*
0	--	Avalent	Impersonal
1	S	One-place	Intransitive*
2	A O	Two-place	Transitive,* monotransitive
3	A G T	Three-place	Ditransitive

* Term that is not well or standardly defined traditionally or currently.

Also, **default** vs. **non-default** varieties of all arguments.
Default = structural or direct coding; non-default = oblique, quirky, semantic.

Examples from English and Russian

0	(It's snowing.)	Temneet. get.dark-3s.PRES It's getting dark.	Morosilo. drizzle-PAST.NEUT It was drizzling.
1	He's running. S	On pobezhal. he ran off S	
	She laughed. S	Ona zasmejalas'. she laughed S	
	The kids are growing. S	Deti rastut. children grow S	
	I got sick. S	Ja zabolela. I got sick S	

2 arguments

I read the paper. A O	Ja chitaju gazetu. I read newspaper-ACC A O
I saw an elephant. A O	Ja (u)videla slona. I saw elephant-ACC A O
Snow covered the roofs. A O	Sneg pokryval kryshi. snow covered roofs-ACC A O

3 arguments

I gave apples to the kids.
A T G

Ja dala detjam jabloki.
I gave children-DAT apples-ACC
A G T

I gave the kids apples.
A G T

Ja dala jabloki detjam
I gave apples-ACC children-DAT
A T G
(No change except word order. Not a dative shift. The difference is pragmatics: with this order, 'children' is focus.)

We loaded the barge with hay.
A G T

My zagruzili barzhu senom.
we loaded barge-ACC hay-INSTR
A G T

We loaded hay on the barge.
A T G

My zagruzili seno na barzhu.
we loaded hay-ACC on barge
A T G
(Change of case/preposition. This is a locative alternation.)

Which is A and which O (etc.)?

S = the sole argument.

A = the more agent-like (volitional, responsible, sentient, acting)
O = the more patient-like or theme-like (changes (incrementally), moves)

G = the more goal-like argument (stationary; can be incrementally affected; ground)
T = the more theme-like argument (moves; no incremental change; figure)

Note that G can be incrementally affected:
load the **barge** with hay: the barge gets full, rides low in the water
spread butter on the **bread**: the bread gets covered
-- in this respect it's like a patient and unlike a theme.

Dowty 1991 and much other work

How are semantic roles (theta roles) assigned to arguments (or vice versa) in this view?

Lexical semantics of verb determines the semantic roles of its participants.

The number of arguments is usually equal to the number of participants, but there are occasional discrepancies:

Individual verbs (see below on 'miss' in Russian vs. English)

Some languages limit the number of arguments of simplex verbs to two

-- That is, the argument structure is lexically specified for each verb, though for the great majority of verbs it is determined by default from the semantic participants.

Argument roles (which is A, which is O, etc.) are determined from semantic roles.

Competing terms: O or P? G or R?

O vs. P: My opinion: This is non-trivial, and O is preferable.

S and O are the two arguments with extreme neutralization of semantic roles. Better to have terms that don't suggest semantics. (More on this below.)

Is O more patient-like or more theme-like? No answer to this question; but the behavior of ditransitives factors these two out and shows that they aren't equatable: G is patient-like in undergoing incremental change; T is theme-like in just moving. No reason the terminology for the one object of a monotransitive should assume that one of the two object functions (patient, theme) is more basic.

G vs. R: Not especially important.

G seems better for contact verbs ('cover', 'fill', 'surround'); "recipient" connotes animacy and implies transfer verbs ('give', 'say', etc.).

Is three the maximum number of arguments?

No: Derived causatives, applicatives, etc. of ditransitives have 4 arguments:

Ingush (Nakh-Daghestanian, Caucasus)

Aaz	Ahwmadaga	bierazhta	axcha	dal-iit-ar
I.ERG	A.-ALL	children-DAT	money.NOM	D.give-CAUS-PAST
A	Causee	G	T	

I had/let Ahmed give money to the children.

Maybe not? Verbs meaning 'rent', 'lease', 'lend' have term and price participants that are argument-like (assigned a semantic role by the verb):

I	rented	a car	from Hertz	for a week	for $270
A		T	G?	TERM	PRICE

The dealer	leased	me	a Prius	for three years	for $12,000
	A	G	T	TERM	PRICE

I	rented out	my garage	to two students	for the semester	for $1000.
A		T	G	TERM	PRICE

How does argument structure differ cross-linguistically?

How does argument structure differ cross-linguistically?

(1) Some languages have few or no underived ditransitives.

Erromangan (Oceanic, Vanuatu; Crowley): 2: 'give', 'tell'
Manam (Oceanic, PNG; Lichtenberk): 5: 'give', 'give freely', 'show', 'put on', 'ask for'
Ewe (Benue-Congo, Ghana; Essegbey 1999): 3: 'give', 'teach/show', 'ask'
Saliba (Oceanic, PNG): None; causatives add a third argument.
Taba (Austronesian, eastern Indonesia): None; derived with applicative.
Tzotzil (Mayan, Mexico; Aissen 1987): None; applicative if recipient is present.

Taba

Banda	n=ot	yan	bakan
B.	3sg=get	fish	be.big

Banda caught a big fish.

Banda	n=ot-**ik**	yak	yan
B.	3sg=get-**APPL**	1sg	fish

Banda gave me some fish.

Margetts & Austin 2007:404-5; example from p. 409

How does argument structure differ cross-linguistically?

(2) Some languages have no literal avalent verbs

e.g. English **It**'s raining.

How does argument structure differ cross-linguistically?

(3) Individual verbs differ in individual languages

e.g. English He missed **the target**
A O

vs. Russian On promaxnulsja.
he missed
S
(No object possible with this verb.)

How does argument structure differ cross-linguistically?

That's all.

How does argument structure differ cross-linguistically?

That's all. Argument **structure** is largely universal.

It's argument **realization** that varies.

Valence, alignment, diathesis, case hierarchies, referential hierarchies, non-default coding, …

Valence and alignment in an accusative language: **Russian**

Definition of accusative: S=A; O different

Accusative language:

Default (open, productive, derivationally basic) alignment is S=A ≠O

Accusative case marks direct objects

Direct object = O with default case; or T with basic alignment and default case.

Verb with no arguments

Morosit.

drizzle-PRES

It’s drizzling.

1 argument. Nominative subject (default pattern):

On pobezhal.
he.NOM ran
S (S = agent)

Ona zasmejalas'.
she.NOM laughed
S (S = possibly agent)

Deti rastut.
children.NOM grow
S (S = patient?)

Ja zabolela.
I.NOM got.sick
S (S = patient)

Kamen' upal
stone.NOM fell
S (S = theme)

1 argument (cont.). Nominative subject (default):

Nastupila vesna (S = theme? of existential/locational)
arrived spring.NOM
S
Spring came. Spring has come.

Representative of a clause type in which VS is the neutral or basic word order (Russian is otherwise SV and AVO) and only the argument can bear focus and be clause intonation peak (the verb can't, unlike most clauses). A larger set of verbs -- chiefly verbs of location and existence -- usually have VS order but have the full range of focus and intonation peak possibilities. A small subset of these usually puts the S into the genitive case when the verb is negated. A different set of verbs, including most motion verbs and a number of them with two arguments, frequently has VS or VA order, even when non-presentational. If postverbal word order, genitive of negation, only one argument, and defective focus or accent behavior characterized the same set of verbs it would be tempting to regard the argument as an O. But since they affect different sets of verbs and none of them is singlehandedly decisive for argument status, there is no reason not to call the argument in the above example an S. (For the Russian facts see Timberlake 2004:300-311, 452-4 and references there, especially Robblee 1993, 1995.)

Comment on the term *subject* used here and below:

Term of convenience. Amenable to rigorous definition in terms of arguments (S, A), perhaps with information about their morphological coding, but always language-specific and construction-specific.

1 argument. Dative subject (experiencer)

Mne	xolodno	
me.DAT	cold	
S		
I'm cold.		

Mne	bylo	strashno
me.DAT	was-NEUT	scary
S		
I'm scared.		

Minority pattern, but has non-negligible text frequency. Note that in Russian not every valence has to have a nominative.

(Note: These two predicates are not morphological verbs. They use auxiliaries, here the verb 'be', to mark tense and aspect)

1 argument. Accusative subject (experiencer)

Menja toshnilo
me.ACC nauseate-PAST-NEUT
S
I felt nauseated.

Menja rvalo
me.ACC throw up (lit. 'tear') -PAST-NEUT
S
I threw up.

Very minor pattern. Another valence without a nominative.

1 argument? Nominative subject plus domain; VS order.

Na stole lezhala kniga
on table lay book.NOM
DOMAIN S
A book lay on the table. On the table lay a book.

V komnatu vletela ptica
in room-ACC in-flew bird.NOM
DOMAIN S
A bird flew into the room. Into the room flew a bird.

Existential and presentational sentences, though also used in contexts where English would not use a presentational sentence. The domain phrase is essential; jury still out on whether the domain is an argument.

2 arguments. Default: nominative A, accusative O (direct object)

Mal'chik	razbil	stakan	
boy.NOM	broke	glass.ACC	
A		O	(A=agent, O=patient)

Ja	uronila	sumochku	
I.NOM	dropped	purse-ACC	
A		O	(A=agent, O=theme)

Ja	chitaju	knigu	
I.NOM	read	book-ACC	
A		O	

Ja	videla	ptic	
I.NOM	saw	birds-ACC	
A		O	(A=experiencer, O=stimulus)

2 arguments. Nominative A, various non-accusative O's.

On	zhdet	otveta
he.NOM	waits	answer-GEN
A		O

He's waiting for an answer.

Masha	upravljaet	firmoj
M.NOM	directs	firm-INS
A		O

Masha runs the firm.

Tolja	boitsja	vody
T.NOM	fears	water-GEN
A		O

Tolja is afraid of the water.

These verbs govern specific non-default cases. No clear direct semantic motivation for case choice, but semantically similar verbs often govern the same case (e.g. verbs meaning 'rule, govern, manage' take the instrumental).

2 arguments. Nominative A, various non-accusative O's.

My vosxischaemsja prirodoj
we.NOM admire nature-INS
A O
We're admiring/enjoying nature

Ja udivljajus' ego povedeniju
I.NOM am.surprised his behavior-DAT
A O
I'm surprised at his behavior.

Masha razozlilas' na Toshu
M.NOM got.angry at T-ACC
A O
Masha got angry at Tosha.

2 arguments. Nominative A, various non-accusative O's.

Fine print: Many verbs of perception, emotion, reaction, etc. with non-accusative O's are reflexive. Most of those are paired with non-reflexives where the stimulus is the A and the experiencer the O.

Ja	udivljajus'	ego	povedeniju
I.NOM	am.surprised	his	behavior-DAT
A			O

I'm surprised at his behavior.

Ego	povedenie	menja	udivljaet
his.GEN	behavior.NOM	me.ACC	surprises
	A	O	

His behavior surprises me.

This is a rule of word formation.

2 arguments. Dative A (experiencer), nominative O.

Mne ponravilsja ego otvet
I.DAT liked his answer.NOM
A O
I liked his answer. (Or: His answer pleased me.)

(Not to be confused with the homophonous verb 'please' as used with agent subject, here as an infinitive in a context making the agency clear (underscore = the shared or null subject of the infinitive):

On$_i$ staraetsja [___$_i$ nravit'sja vsem].
he.NOM tries please-INF everyone-DAT
A O
He tries to please everyone.

For homophonous 'like'/'please' with the same valence alternation in Germanic see Eythórsson & Barðdal 2005:832-3, 840-842, 860-864, 867-868.)

2 arguments. Accusative (O), instrumental (A?).

Lodku	zaneslo	techeniem
boat-ACC	carried off	current-INSTR
O		A
The boat drifted away.		The boat was carried off in the current.

No nominative. This is a minor pattern found with only a very few verbs. OVA word order is more common than AVO, making one think twice about which argument is which, but this is probably no more strange than the motion and location verbs that usually take VS order.

3 arguments. Nominative A, accusative T, dative G.

On skazal nam pravdu
he.NOM told us-DAT truth-ACC
A G T
He told us the truth.

Ja dala detjam konfety
I.NOM gave children-DAT candy-ACC
A G T
I gave the children candy. I gave candy to the children.

No dative shift; the order of the objects can be reversed for semantic and pragmatic effects similar to the English dative shift (examples earlier)

3 arguments. Nominative A, accusative T, oblique G (PP).

My	zagruzili	seno	na	barzhu
we.NOM	loaded	hay.ACC	on	barge-ACC
A		T		G

We loaded (the) hay onto the barge.

3 arguments. Nominative A, accusative G, instrumental T.

My	zagruzili	barzhu	senom
we.NOM	loaded	barge-ACC	hay-INSTR
A		G	T

We loaded the barge with hay.

NB: A's of ditransitives are only ever nominative. Never dative, etc.
Also, every ditransitive has an accusative object.

The main Russian valence alternations:

Passive (canonical)
Detransitivization (word formation: reflexivization)

On otkryl okno.	Okno otkrylo-s'.
he opened window	window opened-REFL
A O	S
He opened the window.	The window opened.

No causative
No dative shift (change order of objects, leave cases unchanged)
Locative alternation.
Prefixes partly involved: they derive verbs some of which favor G=O.

Arguments vs. cases in syntactic rules

Nominative S/A:	Verb agreement Controlee of participial relativization Controlee of infinitive
Accusative O/T/G	Genitive when verb is negated Becomes subject of passive
Nominative S / accusative O	Distributive quantification with *po chto za* 'what kind of'
S/A	Controller of reflexive pronouns Controller of adverbial participle
S/A, O, G, T	Basic word order rules

gruzit' **'load' and two prefixed forms (affecting the outcome of the locative alternation)**
Entries are numbers of examples from a pilot survey of the Russian National Corpus that have that alignment of the T and G. These prefixes have no clear lexical meanings; all verbs shown mean 'load'.

Unprefixed:

		T=O	G=O	
	gruzit'	49	26	(=all active forms)
ppl.	gruzhën	0	21	(ppl = participle; passive)
refl.	gruzit'sja	10	3	(refl. = reflexive; passive)
TOTAL		59	50 (46%)	

Prefixed (pf = perfective, impf = imperfective)

		T=O	G=O		T=O	G=O
pf.	nagruzit'	1	18	zagruzit'	15	19
ppl.	nagruzhen	0	60	zagruzhen-	1	29
impf.	nagruzhat'	2	52	zagruzhat'	41	26
refl.	nagruzhat'sja	0	3	zagruzhat'sja	0	0
	TOTAL	3	133 (98%)		57	74 (56%)

Passive participles, and perfectives, favor G=O alignment. Why? Both easily imply result, and it is the G that is commonly affected by the action (see above on incremental change).

Summary: Argument-marking functions of three cases in Russian

Nominative	Citation form S (default) A (default) Derived subject of passive O (minor; chiefly with dative subject) Mentioned in syntactic rules: Controlee in infinitive clause (subject of infinitive) Controlee in participial clauses Verb agreement (with S/A, only if nominative)
Accusative	O (default) S (very minor pattern) G or T of contact ditransitives (depending on locative alternation) Mentioned in syntactic rules: Accusative O becomes genitive when verb is negated Becomes derived subject in passive Reflexive derivation applies to verbs with accusative O
Dative	G of transfer ditransitives ('give', 'tell', etc.)

Valence and alignment in an ergative language: Ingush

Verbs with no arguments

Aarahw jiiqaai
outside J.clear up-NW-J
It's cleared up. The weather cleared

(J, V, B, D = gender agreement markers. In this example J is a default form; there is nothing in the syntax that the verb agrees with.)

1 argument: Nominative S.

Yz	jiilxar.		Xii	laq'ar	
3s	J.cry-WP		river	dry up-WP	
S			S		
She cried.			The river went dry.		

(NB: I call the citation-form case nominative, not absolutive. Reasons: it is the citation form; and given the splits in Ingush argument case marking there is no one syntactic function or alignment type that clearly deserves to be enthroned in terminology. See also Creissels 2009. In Ingush this case is called c'era duozhar (name-GEN D.fall.NZ) 'nominative case', lit. 'name case'; and Ingush speaking Russian call it Russ. imenitel'nyj 'nominative'. I believe the Ingush term was coined by Ingush grammarian Z. K. Mal'sagov in the 1920's. Some Ingush terms, like this one, calque Russian terms; some correspond to Arabic grammatical concepts; some are Arabic or Persian loans; some are entirely original.)

2 arguments: Nominative A, various oblique O.

Nom Lative	So	zhwalegh	qer
	1s	dog-PL.LATIVE	fear
	A	O	
	I'm afraid of dogs.		
Nom Allative	So	bierazhka	hwozhar
	1s	child-PL-ALLATIVE	look after-IMPF
	A	O	
	I looked after the children.		
Nom Comparison	Cwa hwazaljg	bie	tol geana=t'y
	one bird	in hand	surpass tree=on
	A		
	daaghacha	shin	hwazaljgal
	D.sit-PPL.OBL	two-OBL	bird-COMPARISON
			O
	A bird in the hand beats two in the bush.		

2 arguments: Ergative A, nominative O (default)

Aaz xii malar
1s.ERG water drink-WP
A O
I drank water.

Sy naanaz mashen iicar
my mother-ERG car buy-WP
A O
My mother bought a car.

Ambitransitive: (Ergative A,) nominative S/O

Hwo mychahw veav?
2 where V.be born-NW-V
S
Where were you born?

Qaalsaguo vow veav
woman-ERG son V.give birth-NW-V
A O
A woman gave birth to a son.

2 arguments: Dative A, nominative O.

Yz	surt	diezac	suona
that	picture	D.like-NEG	1s-DAT
	O		A

I don't like that picture.

2 arguments: Genitive A, nominative O.

Sy axcha daac
1s.GEN money D.be.NEG
A O
I don't have money.

3 arguments: Ergative A, dative G, nominative T (default)

Aaz cynna axcha dalar
1s.ERG 3s-DAT money D.give-WP
A G T
I gave him money

Muusaaz zhwaliena ghadzh tiexar
Musa-ERG dog-DAT stick strike-WP
A G T
Musa hit the dog with a stick.

Aaz sei jishiina telefon tiexar
1s.ERG 1s.REFL.GEN sister-DAT telephone strike-WP
A G T?
I called my sister on the phone. I phoned my sister.

(More on the status of 'telephone' below.)

2 or 3 arguments: Ergative A, nominative G, lative T

(rare G=O alignment) (also, another type of ambitransitive)

(1) K'udal xygh jyzar
jug water-LATIVE J.fill-WP
a A? G? O? T?
b G T (plus null A)
a The jug filled with water.
b (Also I/you/he/she/we/they filled the jug with water. -- Null anaphoric A.)
b (Also (Someone) filled the jug with water. -- Null arbitrary A.)

(2) Aaz k'udal xygh jyzar
1s.ERG jug water-LAT J.fill-WP
A G T
I filled the jug with water.

(A still-open question is whether there is a difference in argument structure between (1a) and (1b); and, if there is, what the argument structure of (1a) is. See Creissels 2010.)

4 arguments: Ergative A, allative causee, dative G, nominative T, in a causative of a ditransitive.

Aaz	Ahwmadaga	bierazhta	axcha	dal-iit-ar
I.ERG	A.-ALL	children-DAT	money.NOM	D.give-CAUS-PAST
A	Causee	G	T	

I had/let Ahmed give money to the children.

Phrasal predicates with light verbs: The heavy piece is much like a nominative O.

	Xiv **k'edzh** + jeaqqaai	
	water-ERG boil J.LV-NW-J	
	S	
Looks like:	A O	
	The water boiled.	(light verb 'take', transitive)
	Aaz **nab** + jyr	
	1s.ERG sleep + J.LV-WP	
	S	
Looks like:	A O	
	I slept. I took a nap.	(light verb 'make/do', transitive)

(Huge, probably unsolvable problem: is the boldface word an argument? or just a piece of a compound verb? In the Nakh-Daghestanian languages, simplex verbs are a closed class and phrasal predicates are the only means of forming new verbs, so phrasal verbs are a very large, open, productive set of verbs. If they are analyzed as compound verbs, so that the boldface pieces are not arguments, then the open set of verbs in Ingush is mostly accusative, with S=A and a marked nominative case.)

Deponent verbs: Transitivizing suffix (causative, denominal), but only one argument.

So qeika-jyr
1a cough-J.CAUS-WP
S
I coughed. (no A, despite the causative suffix)

Bieruo wetta-dyr
child-ERG vomit-D.CAUS-WP
S
The baby threw up. (no O, despite the causative suffix)
(Suffix has D gender, as though agreeing with an O.)

Deponence = mismatch between syntax (one argument) and morphology (causative). Surrey Morphology Group; Baerman 2006; Baerman et al. eds. 2007.

Selected constructions and constraints

Agreement:	Controlled by nominative only. (A, S, or O.)
Causativization:	Direct causative applies to verbs with nominative subjects: intransitives, and the two-argument verbs like 'fear' with nominative A and oblique O.
Relative controlee:	Almost no constraints.
Infinitive controlee:	A or S; no case constraints.
Reflexivization controller:	A or S; no case constraint; O (chiefly nominative).
Reflexivization controlee:	Almost no constraints.
Nuclear chaining:	Nominative S or O controlee
Core chaining:	Usually nominative controller (for older speakers)
Basic word order:	AOV/V2

Alternations

No passive, no antipassive
Causatives (nominative pivot)
Inceptive (nominative pivot; creates (A) S/O ambitransitive)
No locative alternation. *

Nearly all ditransitives are T=O; only 2 or 3 are G=O, and one of those varies:

Aaz	ghomaragh	mashen	jettar
1s.ERG	sand-LAT	vehicle	J.stack-WP
A	T	G=O	

I loaded the truck with sand.

Aaz	ghum	jettar	mashiena=t'y
1s.ERG	sand	J.stack-WP	vehicle=on
A	T=O		T

I loaded the sand on the truck.

* Despite the importance of result and resultativity in general in Ingush grammar.

Summary: Argument-marking functions of three cases in Ingush

Nominative	Citation form S (default, with simplex verbs) A (minor pattern) O (default, with simplex verbs) T (default) Mention in syntactic rules and generalizations: Every valence must have a nominative (for simplex verbs) Direct causative requires input verb with nominative Verb agreement in gender with A/S/O, whichever is nominative
Ergative	A (default, with simplex verbs; 100% with causatives) S (non-default with simplex verbs; possibly default for phrasal predicates, if they are analyzed as compounds)
Dative	G (default) A, S (minor but high text frequency: experiencer subjects) O (with phrasal predicates; possibly default) Derived subject of inceptive (where input verb has a non-nominative subject)

Summary on Russian and Ingush

Alignment of subjects:	Accusative vs. ergative
Valence patterns:	Default and others for each argument structure type; many splits, no single alignment type per language.
Alignment of objects:	Ingush: T=O (almost exclusive)
	Russian: T=O (basic); G=O (frequent, and frequently derived)
	(In Dryer 1986 terms both are direct/indirect object type)
Grammatical relations:	Different alignment patterns define different grammatical relations
	Every construction, constraint, alternation, etc. defines grammatical relations
	Arguments bear grammatical relations not to clauses but to constructions (potentially, a different one to every construction)
	(Bickel 2011)

Split-S (split-intransitive, stative-active) languages

Not an alignment type; just an extreme (or well-developed) example of a split that nearly every language has.

Recall that most languages don't have a single alignment type (though they usually have default valence patterns and default alignments)

E.g., most Indo-European languages have several verbs with dative and/or accusative S

Split-S is not an alignment.

Most split-S languages have ergative (S=O) or accusative (S=A) as their default or most frequent type

Exceptions: Acehnese, Batsbi (Dixon's *fluid-S* type)

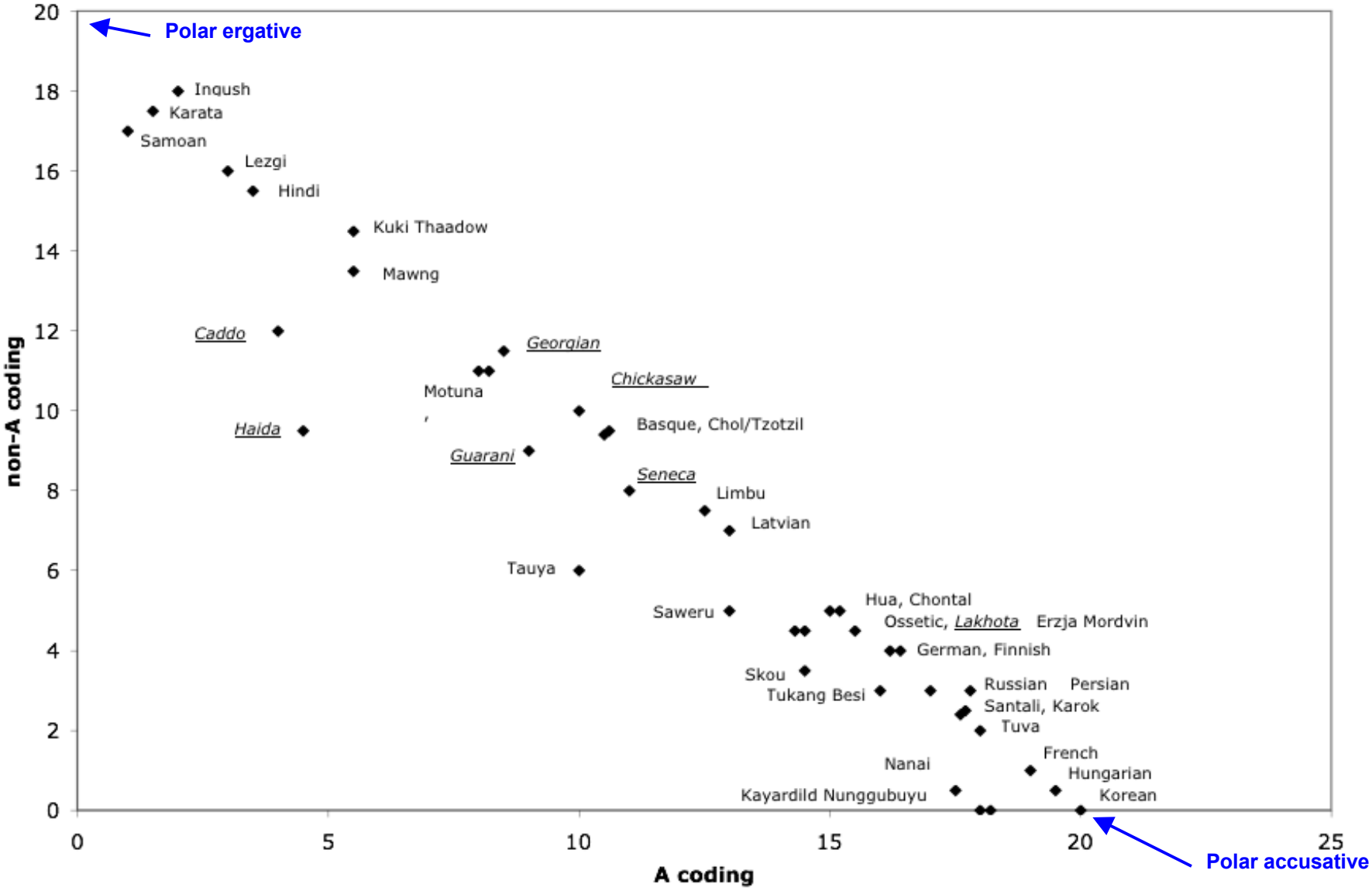
And it's not a type.

Split-S languages form an even cline from mostly ergative to mostly accusative; no polar clusters, no clear types

Zúñiga 2006, Nichols 2008

Number of S=O (or S=non-A) and S=A verbs in a fixed verb list (20 verbs, 40 languages) (Nichols 2008).

Deflections from perfect straight line are mostly due to data gaps. Underlined: languages standardly known as stative-active in the literature. Polar = ideal 100% ergative or 100% accusative types.



Alignment in split-S languages

Standardly described as S=A ~ S=O.

(Fine print: Also A=A ~ A=O, since often some of the verbs involved in the split have two arguments.)

However, the majority of the languages with substantial splits, and the great majority of head-marking split-S languages, are primary/secondary object languages (Dryer 1986), i.e. G=O.

So a better description would be S=A ~ S=G.

(Fine print: Also A=A ~ A=G, as above.)

But S=A ~ S=G (fine print: and A=A ~ A=G) perfectly describes the European languages with dative subjects (Germanic, Baltic, Slavic, Nakh-Daghestanian, Kartvelian, others).

So these (more than Batsbi, Chukchi, etc.) are a close analog to classic split-S languages (Siouan, Caddoan, Iroquoian, etc.).

Hierarchical alignment

Not really an alignment type; systematic determination of grammatical relations by referential hierarchies.

Referential hierarchies:

Speech act participant > kin/name > human > animate > inanimate > mass
Specific > non-specific referential > generic/non-referential
Known/topical/thematic/definite > new/focal/rhematic/indefinite
Singular > plural

Examples:

Subject choice in Algonquian languages (SAP > other)
Differential object marking in Eurasian languages (Specific, definite, etc. > other)

(Bickel 2011:410, Züñiga 2006; Silverstein 1976)

Lability: Radical P alignment in Nakh-Daghestanian (Creissels; Haspelmath)

Northern Akhvakh (ND: Andic; Creissels 2010)

wassho-de	iicc'o	**ax-e**	godi
boy-ERG	door	open:CV-Nsg	COP:Nsg
The boy opened the door			

iicc'o	**ax-e**	godi	
door	open:CV-Nsg	COP:Nsg	
(a) I/we/you/he/she/they opened the door.			(anaphoric A)
(b) The door was opened			(arbitrary A)
(c) The door opened			(no A -- e.g. *zhibeda* (REFL) 'by itself')

ccicci	**ax-e**	godi	
flower	open:CV-Nsg	COP:Nsg	
The flower opened.			(no A)

Is there a *syntactic* distinction between these??

Lezgi (ND: Lezgian; Haspelmath 1993:289-294)

Indija.d-a kal-er req'i-zwa-ch
India-INESS cow-PL kill/die-IMPF-NEG
S / O
(a) In India cows don't die. (S)
(b) In India cows are not killed / one doesn't kill cows. (freely omissible A, O)

Ja Musa, qq'üghür jiq'!
PT Musa hedgehog die/kill:IMPV
O (null A of imperative)
Musa, kill the hedgehog!

Ja dushman, jiq'!
PT enemy die/kill:IMPV
Enemy, die! (null S of imperative)

Criteria for distinguishing labile verbs from transitives (Haspelmath)

Scope of negation (shown on previous slide)
Imperative (shown on previous slide)
Involuntary agent: 'accidentally', etc.

Creissels: These are all semantically constrained;
they do not, overall, distinguish lability from freely omissible subjects.

More work is needed. What **is** the argument structure of the A-less members of ambitransitive pairs? **Are** there any firm criteria for deciding this?

"Invisible" arguments:

In head-marking languages, arguments that trigger no agreement

Limilngan (northern Australia) has two verbs 'lose', both syntactically transitive but one inflected for only one argument:

(1)	Nginyi	nginy-alkgan	mimilung	**m-iny-**uldija-gi
	2M	2M-small	tucker	**III<2M**-lose-PstPrf
			O	(it-you, O-A)
	You! You kid! Did you lose the tucker?			(Harvey 2001:103)

(2)	Gija	marrimarri	**n**-in-biritjga-yi
	later	knife	**2M**-FU-lose-FU
		O	(you, A)
	You will lose (that) knife later.		

(The verb in (1) agrees with subject and object, the verb in (2) only with the subject.)

“Invisible” arguments:

T of ditransitives in head-marking primary-object languages.

Limilngan

i	da-wi-k	arnikgan	**mimilung**	d-Ø-inymuldi-rri=wany
yes	DEF-I-DIST	old woman	tucker	1M<3-give-PstImpf=DUR
		A	T	(me-she, G-A)

Yes, that old woman always used to give me tucker. (Harvey 2001:103)

(The verb agrees with 'me'; it does not agree with 'tucker', though in its syntactic behavior that is also an object.)

Dummy arguments:

Lexicalized agreement in Mawng (Iwaidjan, northern Australia; Singer 2006)

Lexicalized object agreement:

k-angku-marrajpi-kpi-ø k-iwu-ma-ø martpoj
PR-3pl/**3LL**-feel.about-KRDP-NP PR-3pl/3MA-get-NP cockle.sp
They are feeling around in sand underwater, getting Martpoj cockles.
(Singer 2006:206)

LL land gender (O agreement, but no object)

Dummy arguments

Mawng *-marrajpi* 'feel around with hand on sea floor for shellfish' subcategorizes for only one argument but takes Land gender object agreement.

* k-angku-marrajpi-ø martpoj
  PR-3pl/3LL-feel.about-KRDP-NP cockle.sp ('cockles' cannot be object)

* k-angku-marrajpi-ø kunak
  PR-3pl/3LL-feel.about-KRDP-NP ground ('the ground' cannot be object)

k-angku-marrajpi-ø tuka kurrula
PR-3pl/3LL-feel.about-KRDP-NP LOC saltwater ('saltwater' is an adjunct)
He is feeling around in the seawater.

(Singer 2006)

Dummy arguments

Lexicalized subject agreement in Mawng:

inyng-arajpu-ng iny-jaja-ntiny nuwu "**Nganng-arajpu**-n!"
3GEN/3FE**-**ache-PC 3FE-call-PP 2sg.OBL **3GEN**/1sg**-**ache-NP
She was in pain and called out to you, "I'm hurting!" (Singer 2006:219)

GEN non-masc. gender (A agreement)
FE feminine gender (O agreement on first verb)

More familiar examples of dummy arguments:

English	generic Southeast Asian
We're eating apples.	We eat apples
We're eating.	We eat **rice**

Reflexives
Lexically heavy piece in light verb constructions (see Ingush, above)

Recent and ongoing work, current issues, etc.

Ditransitives

Margetts & Austin 2007

Malchukov, Haspelmath, & Comrie 2010

van Lier et al. 2011

Recent and ongoing work, current issues, etc.

Goals of motion verbs: Arguments or adjuncts?

Bickel & Nichols 2009: Arguments, coded like adjuncts. O=adjunct or G=adjunct.

In European languages they aren't coded exactly like the clearest adjuncts (external locatives):

I was reading the newspaper **in the park**
Russ. Ja chitala gazetu **v parke**
in park-PREP

cf. I ran **into the house / to the park / onto the street**
Ja pobezhala **v dom / v park / na ulicu**
in house-ACC in park-ACC on street-ACC

English: possible difference in preposition
Russian (and most case-using European languages): different case

Conclusion: These aren't coded like adjuncts; they're coded as goals.

Recent and ongoing work, current issues, etc.

Ethical datives, etc.

Interested individual; not an argument, probably not in the clause syntactic structure at all, but coded as indirect object.

Czech	Kak	**mi** nevesele vzhlédá š
	how	**me.DAT** not merrily look-2sg.PRS
	How out of spirits you look (I see). (Fried & Masini 2011)	
Italian	Luca	**mi** mangia troppo
	Luca eats too much ('on me'). (ibid.)	

Recent and ongoing work, current issues, etc.

Ethical datives: Compare external possessors (possessor coded as argument).

Russian	Spasli	**emu**	zhizn'
	save-PST-PL	**him.DAT**	life.ACC
			O

They saved his life.

Summary: Degrees of neutralization of semantic roles and semantic transparency in cases, etc. For IE languages:

A	S	O	T	G
2	1	2	3	4

1±2 Marked by a "direct" or "grammatical" or "basic" or high-ranked case, or by a bare case (in languages using both bare cases and adpositions)
Most prone to zero marking
Also used as citation form
There is a default case (or form) for these arguments: direct object, (traditional) subject

3, 4 Often marked by "oblique" or "local" or lower-ranked case, or adposition
There may or may not be a default form for these arguments.

4 Most likely to be coded much like an adjunct;
unlikely to have a default form

1 Much neutralization of semantic roles: S can be agent, experiencer, patient, theme, etc.

2 Considerable neutralization of semantic roles: A can be agent, experiencer, instrument, etc.; O can be patient, theme, content of communication, stimulus, etc.

3, 4 Neutralization only when coded same as O;
otherwise, minimal neutralization (e.g. theme and goal differently marked)
Formal marking likely to code semantics to some extent

Ongoing work on referential hierarchies: RHIM project

(Referential Hierarchies in Morphosyntax)

www.rhim.uni-koeln.de/

8 languages, studied in great detail
(Program and abstracts for May 2011 conference in Lancaster)

Ongoing work on grammatical relations
(Bickel 2011, Witzlack-Makarevich 2010)

Grammatical relations as multivariate, determined by factors such as:

- Role (semantic role, argument role)
- Referential hierarchies
- Clause conditions (TAM, etc.; lexical class of predicate; etc.)
- Syntactic conditions (phrase structure; diathesis; nonfinites; control; etc., etc.)
- Coding properties (case, etc.)

Are there universal affinities among these factors?

Agreement favors referential factors and accusative alignment
(Siewierska 2004, Haspelmath 2005, Bickel 2011:442)

Case is more favorable to ergative alignment; widely considered receptive to referential hierarchies, but this is untested or marginal (Bickel 2011:439-41)

But in general, **grammatical relations hold in individual constructions, not across sets of them and not in languages overall.** (There are clear geographical preferences, however.)

The best object of cross-linguistic description and theory is **clusters** of variables that patter together.

Malchukov et al. valence project

www.eva.mpg.de/lingua/valency/index.php

70 verb glosses x 30 languages. Case, agreement, alternations, TAM constraints, etc.

What do typologists need from formal grammarians?

Thorough, detailed, consistent coverage of all conditions determining grammatical relations, across many verbs

Theoretical work:

- status of G vs. T; respects in which G is patient-like
- status of third arguments in ditransitives: are they indeed arguments in all languages?
- status of arguments of ambitransitive (labile) verbs
- status of goals of motion verbs
- limits and bounds of argumenthood in general
- reasons for hierarchies (e.g. referential hierarchies) and other properties (cognitive? frequency-based? processing-based?)

Computational implementation that will let us present, store, search, catalog, label, and recover grammatical phenomena.

Closer integration with text work and NLP.

Joint work building a widely usable, durable grammatical terminology.

References (p. 1)

Baerman, Matthew. 2006. Deponency: Definitions and morphological typology. Surrey Deponency Databases http://www.smg.surrey.ac.uk/Deponency/Deponency_home.htm

Baerman, Matthew, Greville G. Corbett, Dunstan Brown, Andrew Hippisley, eds. 2007. *Deponence and Morphological Mismatches*. Oxford University Press.

Bickel, Balthasar. 2011. Grammatical relations typology. In Jae Jung Song, ed., *The Oxford Handbook of Linguistic Typology,* 399-444. Oxford: Oxford University Press.

Bickel, Balthasar and Johanna Nichols. 2009. Case marking and alignment. In Andrej L. Malchukov and Andrew Spencer, eds., *The Oxford Handbook of Case,* 304-321. Oxford: Oxford University Press.

Creissels, Denis. 2010. P-lability and radical P-alignment. Presented at 19th International Symposium on Theoretical and Applied Linguistis, Workshop on Typology of Labile Verbs: Focus on Diachrony. Aristotle University of Thessaloniki, April 3-5, 2009. http://www.deniscreissels.fr/public/Creissels-P-lability.pdf [accessed Oct. 2010]

Creissels, Denis. 2009. Uncommon patterns of core term marking and case terminology. *Lingua* 119:3.445-459.

Croft, William. 2001. *Radical Construction Grammar: Syntactic Theory in Typological Perspective*. Oxford: Oxford University Press.

Dowty, David R. 1991. Thematic protoroles and argument selection. *Language* 67.547-619.

Dryer, Matthew. 1986. Primary objects, secondary objects, and antidative. *Language* 62.808-845.

Eythórsson, Thórhallur and Jóhanna Barðdal . 2005. Oblique subjects: A common Germanic inheritance. *Language* 81:4.824-881.

Foley, William A. and Robert D. Van Valin, Jr. 1984. *Functional Syntax and Universal Grammar*. Cambridge: Cambridge University Press.

Fried, Mirjam, and Francesca Masini. 2011. Ethical datives and related constructions: Description. http://francescamasini.caissa.it/ethicaldative/Description.html [Aug. 2011]

Haspelmath, Martin. 2005. Argument marking in ditransitive alignment types. *Linguistic Discovery* 3:1.1-21.

Haspelmath, Martin. 1993. *A Grammar of Lezgian*. Berlin: Mouton de Gruyter.

Kulikov, Leonid. 2011. Voice typology. In Jae Jung Song, ed., *The Oxford Handbook of Linguistic Typology,* 368-398. Oxford: Oxford University Press.

Harvey, Mark. 2001. *A Grammar of Limilngan : a Language of the Mary River Region, Northern Territory, Australia*. Canberra: Pacific Linguistics, Research School of Pacific and Asian Studies, Australian National University.

References (cont.)

Malchukov, Andrej, Martin Haspelmath and Bernard Comrie. 2010. *Studies in Ditransitive Constructions: A Comparative Handbook*. Berlin: Walter de Gruyter.

Margetts, Anna and Peter Austin. 2007. Three-participant events in the languages of the world: Toward a cross-linguistic typology. *Linguistics* 45:3.393-451.

Nichols, Johanna. 2008. Why are stative-active languages rare in Eurasia? Typological perspective on split subject marking. In Mark Donohue and Søren Wichmann, eds., *The Typology of Semantic Alignment Systems,* 121-139. Oxford: Oxford University Press.

Primus, Beatrice. 2011. Case-marking typology. In Jae Jung Song, ed., *The Oxford Handbook of Linguistic Typology,* 303-321. Oxford: Oxford University Press.

Siewierska, Anna. 2011. Person marking. In Jae Jung Song, ed., *The Oxford Handbook of Linguistic Typology,* 322-345. Oxford: Oxford University Press.

Silverstein, Michael. 1976. Hierarchy of features and ergativity. In R. M. W. Dixon, ed., *Grammatical Categories in Australian Languages*, 112-171. Canberra; Atlantic Highlands, NJ: Australian Institute of Aboriginal Studies; Humanities Press.

Singer, Ruth. 2006. *Agreement in Mawng: Productive and lexicalized uses of agreement in an Australian language.* Ph.D. dissertation, University of Melbourne.

Timberlake, Alan. 2004. *A Reference Grammar of Russian.* Cambridge: Cambridge University Press.

van Lier, Eva, Anna Siewierska, and Alena Witzlack-Makarevich. 2011. Alignment typology in three-participant constructions. Presented at Association for Linguistic Typology biennial meeting, Hong Kong.

Van Valin, Robert D., Jr. and Randy J. LaPolla. 1997. *Syntax: Structure, Meaning, and Function*. Cambridge: Cambridge University Press.

Witzlack-Makarevich, Alena. 2010. Typological variation in grammatical relations. Ph.D. dissertation, University of Leipzig.

Zúñiga, Fernando. 2006. *Deixis and Alignment: Inverse systems in indigenous languages of the Americas*. Amsterdam: Benjamins.