Association for Linguistic Typology

9th Biennial Conference

ALT 9

Abstract Book

21st July - 24th July, 2011

The University of Hong Kong

THE UNIVERSITY OF HONG KONG CENTENARY 香港大學百周年

Association for Linguistic Typology

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9th Biennial Conference

Typology beyond the West:
Diversity in East Asian and other non-Indo-European languages

July 21-24, 2011
The University of Hong Kong

Abstract Book

Cover designed by Jerome Zhang

Contents

Association for Linguistic Typology 9th Biennial Conference

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Senior Common Room, 14/F, K K Leung Building

Friday, 22/07/2011

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MB 142, Main Building

Opening Address 8:45a.m.-9:00a.m.
Loke Yew Hall

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MB 217, Main Building

Plenary Session: Panini Award Presentation I 2:00p.m.-2:45p.m.
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Friday, 22/07/2011
Friday Morning session I (9:00 am – 10:30 am):

8:00 am – 8:45 am	Registration, **MB 142, Main Building**		
8:45 am – 9:00 am	***Welcome and introductory remarks.*** **Loke Yew Hall, Main Building**		
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10:00 am – 10:30 am	**Walter Bisang** Nominal and verbal classification—why the former is far more widespread than the latter	**Bernard Comrie, Diana Forker & Zaira Khalilova** Microtypology and the Tsezic Languages	**Hilário de Sousa** Ideophonic compounds in East and Southeast Asia
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12:00pm – 2:00pm	***Lunch***		

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	MB 103, Main Building	MB 167, Main Building	MB G07, Main Building
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Saturday morning session II (11:00 am – 12:00 pm):

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	Case marking II CHAIR: Ljuba Veselinova	**Pronouns and indexing II** CHAIR: Matthias Gerner	**Phonological phrasing** CHAIR: Picus Ding
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Saturday, 23/07/2011
PLENARY SESSION (2:00 pm – 2:45 pm), PANINI AWARD PRESENTATION II:
Antoinette Schapper, Bunaq. A Papuan Language of Central Timor (Australian National University, 2009). ***Loke Yew Hall, Main Building***

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3:15 pm – 3:45 pm	**Rachel Nordlinger** From body parts to applicatives	**Johan van der Auwera, Lauren Van Alsenoy & Maud Devos** On the relation between double clausal negation and negative concord	**Kazuhiro Imanishi** On the ergative behavior of verbal compounds
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Saturday, 23/07/2011

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1. **Federica Da Milano**: Impersonal uses of personal pronouns in East Asian languages
2. **Foong Ha Yap & Mikyung Ahn**: Verbal and nominal pathways in the development of 'SAY' as a sentence final particle
3. **Ines Fiedler**: The nature of complex predicates in Ama (Nilo-Saharan)
4. **M.M. Jocelyne Fernandez-Vest**: Typology of partitives : a discourse-cognitive comparison of Finno-Ugric partitives with their translational equivalents
5. **Saeko Ogihara**: Relative clauses in verb-final languages
6. **Tianhua Luo**: Interrogative verbs in the languages of China
7. **Yujie Chen**: The semantic gradation of demonstratives in Sinitic languages - a cross-linguistic study
8. **Dmitry Gerasimov**: The case for universal hierarchy of functional heads: Guaraní vs. Cinque

POSTER SESSION B (4:45 pm – 5:45 pm), MB 167, Main Building

9. **Bianca Basciano & Chiara Melloni**: VN compounding in Bantu, Romance and Chinese
10. **Frank Seifart**: Cross-linguistic variation in the noun-to-verb ratio
11. **Eleanor Coghill**: Grammaticalization of prospectives and futures from a verb 'to go': the Neo-Aramaic case and its cross-linguistic parallels
12. **Kawai Chui**: Language typology and linguistic-gestural conceptualization of motion events
13. **Motomi Kajitani & Sook-kyung Lee**: Polysemy of the similative plural construction: a crosslinguistic perspective
14. **Bernard Comrie, Iren Hartmann & Martin Haspelmath**: Semantic role complexes and role granularity: a quantitative verb-based approach
15. **Marlou van Rijn**: Phrasal alignment in Functional Discourse Grammar. a typological study.
16. **Michael Cysouw**: Typology without types: quantitatively inducing a numeral system typology
17. **Zhenglin Qu**: The cross-linguistic placement of modification markers in NPs and its explanation

CONFERENCE DINNER
7:00pm Seafood dinner at Jumbo Kingdom Floating Restaurant, Aberdeen

Sunday, 24/07/2011
Sunday morning session (9:00 am – 10:30 am)

	MB 103, Main Building	**MB 167, Main Building**	**MB G07, Main Building**
	Sign, gesture and insubordination CHAIR: Kawai Chui	**Address and verba dicendi** CHAIR: Michael Dunn	**Word order and information structure** CHAIR: M.M.Jocelyne Fernandez-Vest
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10:00 am – 10:30 am	**An Van linden, Jean-Christophe Verstraete & Sarah d'Hertefelt** A semantic typology of complement insubordination	**Anna Siewierska & Eva van Lier** 'Introduce' cross-linguistically – Towards a typology of non-prototypical three-participant construction	**Kirill Prokhorov** Grammatical relations and information structure in Dogon languages
10:30 am – 11:00 am	*Coffee Break*		

11:00am – 12:30pm **ALT Business Meeting,** ***MB G07, Main Building***

BOOK EXHIBIT

July 22 (Friday) & July 23 (Saturday), approximately from 10a.m. – 5:00p.m.
July 24, (Sunday), 9:00a.m.-11:00p.m.
Location: MB 217, Main Building

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Cambridge University Press

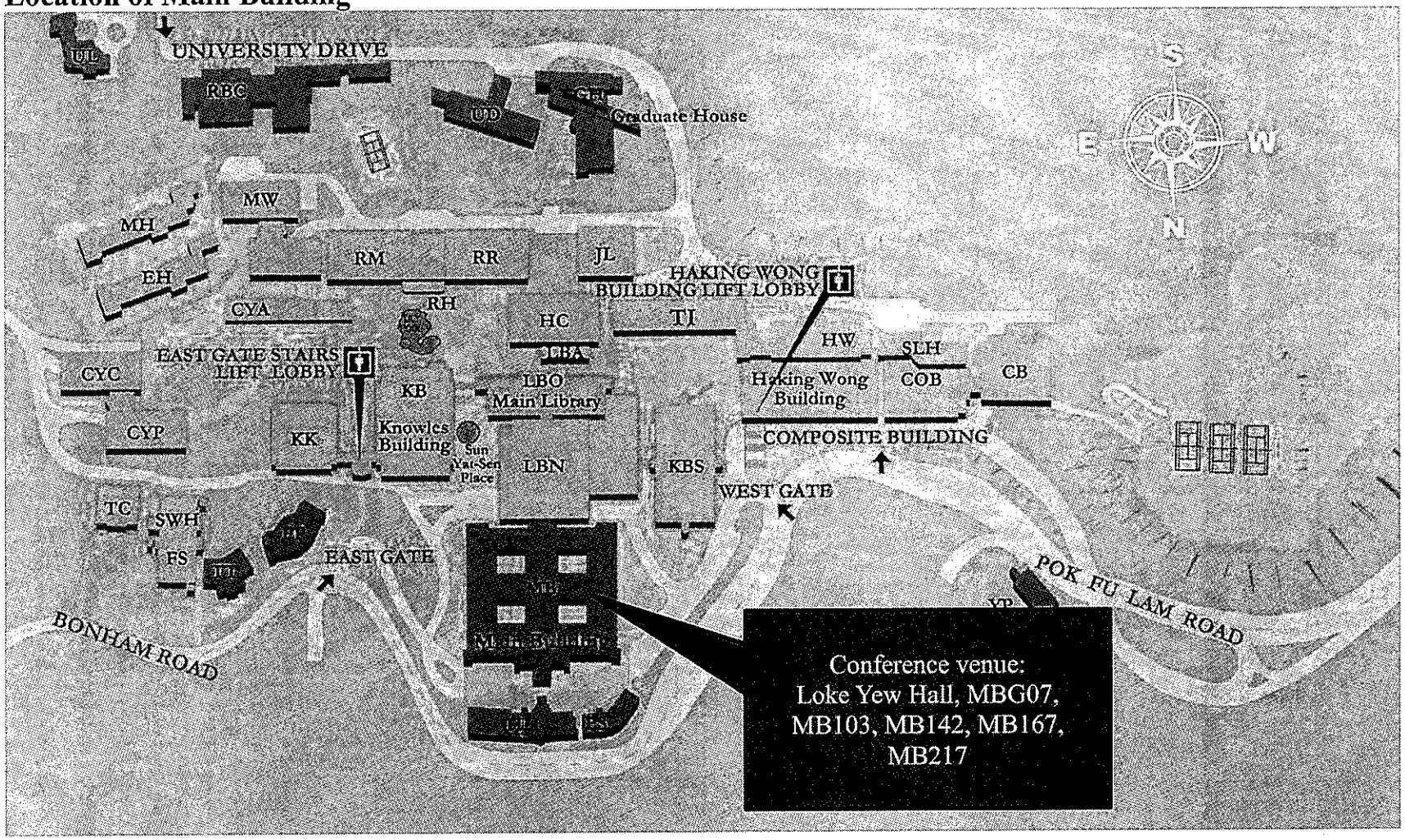
Hong Kong University Press (Represented by Swindon Book Company)

John Benjamins

Mouton de Gruyter

Oxford University Press

Location of Main Building



Giorgio Francesco Arcodia (University of Milano-Bicocca)

Morphologization in isolating languages: focus on Zhongyuan (central plain) Mandarin

Sinitic languages are typically classified as isolating (Norman 1988, LaPolla 2003): they do not possess a rich morphology, the boundaries between morphs are very stable and generally do not become blurred, there is virtually no obligatory inflectional morphology. As to Standard Mandarin, it is often assumed that morphologization processes are strongly constrained by its typological features; according to Wu F., "in Chinese, a grammatical word or a clitic do not further evolve into an inflectional affix, and they are often attached to the neighbouring word to form a new lexical item, the original grammatical word or affix becoming a morpheme inside this new word" (2005:25, my translation; see also Lamarre 2009). The opinion that in isolating languages morphologization processes cannot be completed is shared also by many Western linguists (Traugott & Heine 1991, Bybee, Perkins & Pagliuca 1994, Bisang 1996); this is probably true if one considers only data from Standard Mandarin.

However, Yue (2003) and Lamarre (2009) already pointed out that in some Sinitic languages, especially in the Zhongyuan (Central Plain) Mandarin and Jin groups, one finds the so-called phenomenon of 'rhyme change' (變韻 *biànyùn*), which can be regarded as a rather morphologized expressive device. To give an example, in (1) and (2) the change in the rhyme of the verb mai^{55} 'buy' into 'ɛ' adds a perfective meaning to the event described (濬縣 *Xùnxiàn* dialect, Xin Y. 2006a:47; our emphasis, superscript numbers indicate tonal height):

(1)	m**ai**^{55}	i^{42}	tɕin^{24}	ian^{42}		(2)	m**ɛ**^{55}	i^{42}	tɕin^{24}	ian^{42}
	buy	one	½.kg	salt			buy.PFV	one	½.kg	salt
	'I will / am going to buy ½ kg. of salt'						'I bought ½ kg. of salt'			

In this talk, we shall present and discuss data on the phenomenon of rhyme change in the verbal system of five 'Chinese dialects' (i.e. Sinitic languages), four belonging to the Zhongyuan Mandarin group (濬縣 *Xùnxiàn*, 長葛 *Chánggé*, 滎陽 *Xíngyáng* and 西安 *Xī'ān*) and one belonging to the Jin group (獲嘉 *Huòjiā*), to evaluate their degree of morphologization, in order to assess the validity of the claims introduced above on the 'typological constraint' on morphologization in isolating languages (and, particularly, languages of East and Mainland Southeast Asia; cfr. Bisang 1996, 2004). We chose one non-Zhongyuan language (獲嘉 *Huòjiā*) and one language outside the Henan province (西安 *Xī'ān*) to keep track of the possible role of genetic and areal factors.

We shall understand morphologization not only as "the creation of a bound morpheme (i.e., an affix) out of an independent word by way of cliticization" (Hopper & Traugott 2003:145) but, more generally, as what Traugott (2002:27) terms "secondary grammaticalization", i.e. "the development of morphophonemic 'texture' associated with the categories in question; [...] the degree of morphological bonding/fusion, phonetic erosion, bleaching, etc." However, we shall evaluate rhyme change phenomena in the different dialects according to three main parameters, namely the degree of bonding/fusion, obligatoriness and sistematicity, i.e. the generality of the phenomenon; the second of these parameters, obligatoriness, is normally used to assessing the degree of grammaticalization (compare the 'parameters of grammaticalization' in Lehmann 1995), rather than 'bare' morphologization (compare Joseph 2007). We shall also make some remarks on the origin of rhyme change phenomena, showing how they often seem to be the product of the fusion and erosion of morphs (related e.g. to Mandarin 了 *le*), and that the differences in rhyme change in the various dialects may be seen as the reflection of different stages of diachronic evolution.

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Bianca Basciano (Università Cattolica del Sacro Cuore)
Analiticity and the expression of causativity: data from Sinitic

This talk will deal with the issue of Chinese complex V-V verbs formed by means of a causative light V_1 in Mandarin Chinese, Taiwanese Southern Min (TSM) and Hakka. Mandarin Chinese has few lexical causatives (labile verbs), e.g. 开 *kāi* 'open' and 沉 *chén* 'sink'; however, even when labile verbs are available, a compound form is generally preferred to express the transitive variant. The main means to express causativity in Mandarin Chinese are periphrastics means and complex verbs formed by two verbal roots (i.e. resultative compounds and verbs formed with a light V_1). The tendency to express causativity by means of compounding seems to be linked to the analytic nature of Mandarin. This is even clearer if we consider the diachronic development of the Chinese language, which is characterized by a typological shift from a synthetic to an analytic language and by a substantial change in the lexicon. These factors apparently contributed also to the change in the ways to express causativity by means of different strategies.

In this talk we will focus only on complex V-V verbs formed with a phonetically realized light verb (带音的轻动词 *dài yīn de qīng dòngcí*), i.e. a verb that has general and abstract semantic content (see Grimshaw & Mester 1988, Feng 2005, Zhu 2005, Jie 2008), as e.g. Mandarin 打 *dǎ* 'beat, strike, hit', 弄 *nòng* 'make', 搞 *gǎo* 'do'. These verbal roots, when appearing as V_1s of V-V compounds often do not represent a particular action, origin or manner, as in the case of resultatives, but are blurred verbs, with a general causative meaning, forming the transitive version of intransitive change-of-state verbs, e.g. 弄沉 *nòngchén* 'sink', 弄暗 *nòng'àn* 'darker', 弄断 *nòngduàn* 'break'; thus they are items involved inthe causative alternation. Light verbs do not give any semantic contribution to the whole complex verb. The compound verb just expresses the resultant state, leaving the causing event unspecified: different actions can bring about the resultant state. Among light verbs, we will illustrate one particular case, i.e. the root 打 *dǎ* 'hit, beat, strike'. In V-V compounds 打 *dǎ* can be used either as a full verb, forming a resultative compound, or as a light verb. In a complex verb like 打死 *dǎsǐ* '*dǎ*-die', the meaning of 打 *dǎ* could be either 'beat and kill (make die) as a result' or simply 'kill (make die)'; in the latter case, the resultant state 'die' can be reached performing different actions, as we will show. We will compare this root with TSM 拍 *phah4* 'hit', e.g. a 拍醒 *phah4 chhin2* 'wake', 拍破 *phah4 phoa3* 'break' (Lien 1999:8) and Hakka 打 *da2* 'hit', e.g. Hailu Hakka 打壞 *da2 fai3* 'break', 打缺 *da2 kiet4* 'chip' Yeh 2008:67-68). In TSM and Hakka this item seems to be more grammaticalized than in Mandarin. We will show the variation of use of this item among some other Sinitic languages (in some of them the change in meaning is signalled by tonal change) and the diachronic development of this item in the Chinese language. We will argue that its causative function derives from the progressive abstracting generalization of its 'make' meaning (cf. Moreno 1998)

Finally, we will illustrate another particular light verb, i.e. the Mandarin root 加 *jiā* 'increase', e.g. 加宽 *jiākuān* 'increase + wide = widen', 加深 *jiāshēn* 'increase + deep = deepen'. We will propose that the root 加 *jiā* 'increase' 1) represents the causative component, forming the transitive variant of verbs of change of state based on open-range adjectives involving an increase in the property denoted by the adjective; 2) is the spell-out of one relevant part of the logical representation, i.e. the increasing event (cf. Hay, Kennedy & Levin 1999). Also, we will show that to form the transitive variant of change-of-state verbs based on open-range adjectives denoting a decrease in some properties (increase in negative properties), a V_1 that marks the negative direction of the change in degree is required (cf. Steffen Chung 2006). Instances of this kind of formations can be found in TSM and Hakka too, e.g. TSM 加強 *gāgiŏng* 'strengthen', Meixian Hakka 加長 *ka44 tsoŋ 31*.

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VN Compounding in Bantu, Romance and Chinese

In this paper, we will develop a comparative analysis of VN (nominal) compounds in Romance, Bantu languages (especially Bemba) and Mandarin Chinese:

Table 1.

BANTU	**ROMANCE**	**Chinese**
Be. *lúbùmbá-nóngó* 'mud-building hornet' lit. 'mould-clay pot'	It. *apribottiglie* 'bottle-opener'	领事*lǐngshì* 'consul' lit. 'lead-business'

VN compounds generally convey an agentive/instrumental meaning and they can refer to humans, animals and objects in all the languages at issue. The languages examined show many similarities, mainly differing in the presence or lack of declension markers (final vowel on V / number morphology on N) - arguably related to the morphology of the individual languages - and in the (un)productivity of the phenomenon.

Table 2.

	ROMANCE	BANTU	Chinese
ARGUMENTHOOD	N direct object of V (also subject or locative)	N direct object of V (also locative or complement licensed by applicative)	N direct object of V; also locative or subject (NV order)
N CONSTITUENT	• Plural or mass noun / also singular • No determiner	• Plural or mass noun • No argument	Root
V CONSTITUENT	Verb stem + final vowel	Verb stem + final vowel	Root
HEADEDNESS	Exocentric	Exocentric	Exocentric
DETERMINER ON N	No	No	No
RECURSION	Limited	Limited	Limited
PRODUCTIVITY	Only with agentive / instrumental interpretation	No (Bemba, but cf. Chichewa a.o. Bantu languages)	Limited

With respect to standard synthetic compounds attested in Germanic, e.g. *truck-driver*, this kind of compounds do not have overt marking of nominalization. However, there are some cases of Bemba compounds taking overtly realized prefixes such as *ka-* and *mu-* (e.g. *kámíná-mísà* 'swallow-gulps = drunkard'). On the basis of synchronic, diachronic and comparative evidence, we will show that *ka-* and *mu-* are fully derivational, differing from the homonymous class prefixes. These compounds are very common in other Bantu languages, e.g. Gykuyu (Mugane 1997, Bresnan & Mugane 2006). While in Romance languages synthetic compounds are not attested (with a few eceptions), in Chinese there are compounds akin to those found in Germanic languages (e.g. 展览主办者 *zhǎnlǎn zhǔbàn zhě* 'exhibition (to)sponsor SUFF = exhibition sponsor'; cf. He 2004, a.o.). Interestingly, there seems to be a connection between the degree of productivity of VN compounds and the presence/absence of synthetic compounds, which seem to represent in fact a more sophisticated word formation strategy, arguably featuring an incorporation (the NV order) and a derivational (the suffix) phenomena.

Recent analyses have proposed that VN compounds are fossils of simpler stages of the syntax of modern languages (cf. Progovac 2006, 2009). According to this view, this kind of compounds are in most languages (e.g. English and Slavic languages) only preserved as fossils, mostly referring to names, nicknames and derogatory expressions, e.g. English *pickpocket*, *daredevil*. We believe that a proto-linguistic analysis can hardly account for the productivity of VN compounds in Romance, where, in addition, the meaning of this kind of compounds is not confined to (derogatory) nicknames and phytonyms (see also Chinese). Another interesting issue concerns the influence of the syntactic word order of a language on the order of the constituents of VN compounds. As a matter of fact, the languages at issue are all VO languages and have nominal exocentric compounds with the VN order. Interestingly enough, Japanese, which is a OV language, has similar compounds, but with the NV order. To this respect, Chinese compounds where N is the external argument of V are quite interesting: the order is NV (e.g. 海啸 *hǎixiào* 'sea + scream = tsunami') *vs.* Romance (e.g. Italian *bollilatte* 'milk kettle'), where the order is VN.

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A revised clitic-positioning typology

The proposed paper incorporates ideas from the literature and the author's own field data on how clitics are ordered relative to the rest of the domain. The domain itself is the clause (with the verb as its head) or a nominal expression (headed by the noun).

The main typological divide is between head-adjacent and phrasal positioning. The former type of clitic must appear immediately before/after the head verb/noun, whereas phrasal clitics are positioned relative to some edge element of the domain. This edge element is either initial or final in the phrasal domain. If the language uses the final edge element, then the only available positioning is after (and phonologically dependent to) it. If, on the other hand, the initial element anchors the clitic(s), then the clitic(s) can be either before or after the initial anchor. If *before*, the clitic(s) can lean phonologically in either direction. If *after*, the clitic(s) must be phonologically dependent on the anchor; this is known as Wackernagel's position. The anchoring element of a Wackernagel clitic is furthermore parameterized as either a prosodic word or a syntactic phrase. (Some languages, e.g. SerBoCroatian varieties, allow both types of anchoring initial elements.)

The preceding sketch builds on historiographic work by the proposed paper's author. In addition to Wackernagel (1892), many of the ideas come from the work of Susan Steele (1975 in *Word order and word order change*, 1976 in *Linguistic studies offered to Joseph Greenberg*, 1977 in *Mechanisms of syntactic change*, 1981 in *The encyclopedia of AUX*). Steele's work points out several asymmetries in positioning AUX elements; these observations turn out to be applicable to clitics overall. First, if a head-adjacent clitic follows the head, then the clitic depends on that head phonologically (Steele 1975: 207, 248 n. 14, 1981: 158). I have further observed that if a clitic precedes the head relative to which it is positioned, then it phonologically depends not on the head but the preceding free element. Thus, head-adjacent clitics always lean phonologically on the preceding element. Furthermore, Steele has identified only three positions within a phrasal domain where clitics appear—dubbed the three "missionary positions" (1975: 227, 233, 236)— pre-initial, post-initial, and (post-)final. That is, contrary to the later (extremely influential) proposals of Judith Klavans (1980/1982/1995 dissertation, 1985 *in Language* vol. 61), where a fourth, penultimate position was added, the Steele typology turns out to be empirically more accurate in allowing only post-initial position if a clitic interrupts the domain. A wealth of literature shows that no attested language with penultimate positioning where the verb is not final. In other words, all cases of penultimate position are better analyzed as head-adjacent rather than phrasal positioning. In fact, Steele (1981: 158–59), without citing Klavans, also observes this phrasal-positioning asymmetry.

Though mistaken about details of the eight positions and directions of phonological affiliation, Klavans has contributed one enduring observation: "The independence of syntax and phonology in cliticization" (= the title of her 1985 article). That is, though a clitic is positioned relative to some head or initial/final anchor, the clitic need not lean phonologically in the same direction (e.g. in Kwakwala). Clitics can take so-called dual citizenship. More recently, Cysouw (2005 in *Morphology and its demarcations*) investigates such dual-citizenship—or in his terms, ditropic—clitics. What I find startling in Cysouw's data is that all ditropic clitics precede the head or initial phrasal element.

To sum up, the possibilities found in the world's languages—found in Yagua, Kugu Nganhcara, Djinang, Udi, Northern Talysh, Ingush, and Kwakwala, e.g.—show that the types are limited and not as theoretically elegant is some proposals might suggest.

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Nominal and verbal classification—why the former is far more widespread than the latter

Classification as it is manifested in classifier systems is found with nouns and verbs. While nominal classification is widespread and rather well-described (Aikhenvald 2000, Grinevald 2000), verbal classification seems to exist in much less languages and is discussed less frequently (McGregor 2002; McGregor, Schultze-Berndt & Wiebusch 2008). Starting out from morphological compounding as an important historical source of both types of classifier systems, the paper will argue that this asymmetry is functionally motivated.

In nominal classification, compounding is at the beginning of numeral classifiers (mainland SE Asia), noun classifiers (Jacaltec [Mayan]; Craig 1986) and systems that come very close to noun-class marking (Miraña [Witotoan; Colombian Amazon]; Seifart 2005). Numeral classifiers do not only mark individuation in many systems, they also express definiteness, possession, contrastive focus, singulative, size and politeness. Similarly, class-nouns express various functions such as definiteness, anaphoricity and modification by relative-clauses (Craig 1986, Aikhenvald 2000). Class-markers of Miraña are affixed to numerals, demonstratives, several pronominal expressions and to verbs for marking cross-reference (Seifart 2005). Even if the emergence of noun and numeral classifiers is based on different semantic-cognitive criteria (Grinevald 2000), they are both integrated into the expression of numerous grammatical functions without any reduction in their classificational system.

Verbal classification is observed in several Australian languages, in Gújjolaay Eegima (Niger-Congo, Atlantik-BAK; Sagna forth.) and in Tsafiki (Barbacoan; Ecuador; Dickinson 2002). In Gooniyandi (Non-Pama-Nyungan, Bunuban), whose class-markers are derived from erbal roots, the criteria of classification are Aktionsart, valency, clause types and direction of movement (McGregor 1990). Similar functions are expressed in Nyulnyulan languages (Non-Pama-Nyungan) by verbs with the meaning of 'do, say', 'sit', 'make, put', 'give', 'go', etc. (McGregor 2002).

There are two conditions which are responsible for the asymmetries in the persistence of classification in the grammar of nouns and verbs:

(i) The individual elements used for classification should not interfere with other processes of grammaticalization that are also related to their concrete meaning.
(ii) The grammatical category for which classification is used should not impair the initial classificational system.

Nominal classification:
(i) The initial semantics of the markers involved (animacy, shape, flexibility, instruments, etc.; Allan 1977) is not used for other grammaticalization pathways.
(ii) The grammatical functions into which classifiers develop (individuation, definiteness, anaphoricity, etc.) allows for the integration of the initial classificational criteria without concomitant reduction of semantic distinctions.

Verbal classification:
Events are perceived online in terms of event structures consisting of verbs and their participants and they can be looked at from different temporal and spatial perspectives. Hence, there is a strong tendency to specify verbs for transitivity, aspect and directionality rather than to classify them. This supports the violation of (i) and (ii) as follows:
(i) Some verbs involved in compounding-based classification are further grammaticalized into markers of transitivity, aspect or directionality.

(ii) Since these categories prototypically consist of very few oppositions, many initial members of the classificational system get eliminated during grammaticalization.

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Sampling language isolates

The literature on stratified sampling for typological research (Bakker 2011, Bell 1978, Dryer 1989, Dryer 1992, Hawkins 1983, Nichols 1992, Rijkhoff et al. 1993, Rijkhoff and Bakker 1998, Tomlin 1986) consistently identifies the requirement that languages in a sample be genealogically independent in order to avoid biases related to the common ancestry of members of the sample population. The pursuit of this goal, together with concerns about areal-biases, the effects of colonial languages and the fair representation of languages from all over the world (Dryer 1989, Nichols 1992) has contributed to a culture of sampling which inadvertently ensures that certain biases remain. For instance, certain languages repeatedly receive representation across multiple samples (e.g. Chukchi as a representative of Chukchi-Kamchatkan) and the (extant and extinct) language isolates recognised by Ruhlen (1987) (e.g. Basque, Burushaski, Nivkh) repeatedly reoccur in typological samples constructed based on the proposals of Rijkoff et al. (1993). At the same time, other isolates and small isolate-families are often excluded from large-scale samples. In this paper, we present the results of an experiment conducted to empirically examine the extent to which a sample composed of isolates would affect the outcome of typological research. The scientific aim of the research is to provide an empirical base from which to argue for or against the inclusion of isolates in sampling techniques and to quantify the degree to which languages systematically excluded or marginalised in sampling procedures differ from the general population, and by which characteristics. To do this, we have constructed a sample composed of languages isolates, languages without any known relatives and languages from very small isolate-families which would normally face exclusion from stratified sampling on the basis that they would skew the ability to represent large families. Specifically, we test whether the distributions of over forty different structural features, including phonological, syntactic and semantic characteristics shown by such languages, in order to compare and contrast the outcomes with the established linguistic frequencies and distributions for those features.

In *Ethnologue* (Lewis, 2009), there are 50 languages listed as isolates and 6 one-member families. These languages constitute our *main sample*. Such a sample is heavily biased towards South America, cf. also (Dahl, 2008, Dahl, Forthcoming) for similar observations. For the pilot study leading to this project we use 16 languages from the six macro-linguistic areas outlined by Dryer (1992). They constitute our *small sample*.

Our current results demonstrate that a sample consisting only of isolate languages shows no major deviations from cross-linguistic distributions of features within the domains of phonology, tense-aspect, word order and negation as presented in *WALS* (Haspelmath et al., 008). Specifically, of the forty features checked for these domains, the small isolate sample shows a marked difference in the distribution of a handful of parameters when compared to the istribution of the same variables in large scale samples. For instance, isolates show a strong endency to have voicing in plosives only; in this respect they stand out as exceptions to general and local areal patterns shown by Maddieson (2008). Another parameter where isolates differ markedly from large samples is in the expression of major tense-aspect categories. The isolates in our small sample show a strong tendency not to mark them; however, these isolates are all located in areas where such marking is generally absent so in this sense, the isolates can be considered to conform to areal patterns. A few specific languages, including Basque and Seri, stand out as exceptions by repeatedly deviating from a number of word order parameters that are otherwise consistently applied in their respective areas.

On the whole, sampling isolates and one-member families has proven enlightening in several respects. It shows that conclusions about the general distributions of structural features will not necessarily be skewed in such a sample. Furthermore, by showing which languages are

more resistant to areal contact than others, it allows an assessment of the cohesion of different linguistic areas. Finally, it highlights knowledge about small languages from a comparative perspective, something that is rarely done in large-scale cross-linguistic research.

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The role of referential hierarchies in pronominal indexing: evidence from Alor-Pantar

Referential hierarchies determine thresholds beyond which morphosyntactic distinctions are realized. An important issue is whether they constitute a complete explanation. The Alor-Pantar languages of eastern Indonesia are a fertile ground for investigating this question. They have verb prefixes which typically index person and number of object arguments, but they exhibit significant variation, with semantic conditions differing in prominence across the languages, and some degree of lexical stipulation of the verbs involved.

We discuss published and recent fieldwork data elicited using new video stimuli which systematically manipulate properties of the arguments (animacy, volitionality) and properties of the predicate (telicity and active-stative), based on Arkadiev's (2008) typology of semantic alignment. Teiwa (Klamer 2010), a member of the Pantar subgroup (Holton, Klamer, and Kratochvíl 2009), has a single set of prefixes indexing objects. There is a strong correlation between object animacy and the presence of a prefix. In (1) the animate object is indexed by a prefix on the verb. In (2) the object is inanimate and no prefix appears. This is, however, not always a sufficient condition, as prefixation depends on the choice of verb. Alor languages -- Adang (Haan 2001), Abui (Kratochvíl 2007) and Kamang -- have more prefix sets. In Kamang each set is associated with either animate or inanimate objects. Consider (3), (4), and (5) from a single speaker (Schapper, p.c.). The prefixes *ga-* and *ge-* are used with animates whereas *go-* is used with inanimates. In table 1 *ga-* and *ge-* are particularly associated with animates, with *ge-* showing the strongest tendency in indexing animate objects. The prefix *go-* is mainly used with inanimates. The profiles for the other Kamang speakers are similar.

Using example frequency, we argue that there is a potential competing explanation in which the prefix form is determined by the verb, and the correlation of the prefix choice with object animacy is an indirect consequence of the typical object choice of the verb. The different prefix sets are then the result of lexical stipulation, and morphology has a greater synchronic role.

Appendix

Teiwa:

(1) Name ha'an [n-oqai g-unba']
sir 2SG 1SG-child 3SG-meet
'Sir, did you see (lit. meet) my child?' (Klamer 2010: 159)

(2) bif eqar kopang nuk [tei baq kiri]
child female small one tree log pull
'A little girl is pulling a log.' (Response to video clip C18_pull_log_29)

Kamang:

(3) lami saak nok [ge-dum **ga**-buh latsi]
husband old(of.people) one 3.POSS-child 3I-lift.up stand
'An old man stands holding his child.'

(4) lami saak nok sue [ge-nok **ge**-beta]
husband old(of.people) one arrive 3.POSS-friend 3III-push. away
'An old man comes and pushes away his friend.'

(5) nok gal koo [ping go-sire]
one 3SG stay plate 3II-wash
'A person washes a plate.'

Prefix	**Indexing animate objects**	**Indexing inanimate objects**	**Total**
ga- (set I)	3	1	4
go- (set II)	2	4	6
ge- (set III)	2	0	2
no prefix	2	2	4
Total	9	7	16

Table 1. Video stimuli results (Kamang, SP12)

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The semantic gradation of demonstratives in Sinitic languages- a cross-linguistic study

This paper investigates the semantic spectrum of demonstratives in Sinitic languages from a cross-linguistic perspective. Demonstratives are used to identify a referent mainly by their function of pointing - deictic function, anaphoric function and so on. At the same time, certain semantic properties, such as distance, time, animacy and even geographic factors, can be encoded by the demonstrative system. These semantic features are supplementary devices to the pointing functions, used to identify the referents more rapidly and accurately.

Distance represents the core of all semantic factors possibly represented by demonstratives. Diessel (1999) proposes that demonstratives in all languages can be marked by distance. But it must first be recognized that the semantic distinctions vary according to the referents of the object categories, as Chu Zexiang and Deng Yunhua point out (2003). It is thus necessary to differentiate object categories in order to comprehensively study the semantic spectrum based on distance. In some languages, demonstratives referring to location have different distinctions from those referring to degree or size, for example, in the Taihe dialect (Gan dialect), demonstratives referring to common nouns have a one-way system, while they have a three-way distinction when indicating location.

We find that the semantic factor by which the semantic layering of demonstratives is established in Sinitic languages (or Chinese dialects) is only related to distance, and does not concern animacy, geography or any other parameters. Based on a representative sample of about 30 Chinese dialects from different branches of Sinitic, we obtain the following conclusion:

1. If there is a one-way demonstrative system in a language or a particular object category, the demonstratives are neutral, such as *gəʔ44* in Suzhou dialect.
2. The two-way system is thought to be the most common system and is widely distributed in many languages worldwide, such as English and Mandarin Chinese. It is distance-oriented, proximal and distal forming a pair of oppositions.
3. The three-way system presents complex diversities displayed in the following diagram:

Three way system	Person-oriented	proximal	medial	distal	Japanese
	Distance-oriented	proximal	medial	distal	Huanggu dialect
		close	proximal	distal	Xinyu dialect
		proximal	distal	yonder	Wujiang dialect
		proximal	distal	neutral	Suzhou dialect

Neutral demonstratives are significantly different from medial demonstratives in their semantic properties, and this results in a series of interesting grammatical differences.

In some dialects, there are even finer distinctions for demonstratives are. For example, the Chongming dialect (Wu) has a four-way system. In some languages, a six-way system is possible in principle, but no such example of this type has been found in Sinitic languages.

Apart from distance, there is a large variety of semantic properties which can be encoded by demonstrative systems, such that we propose the following universal implications related to them (based on a sample of 37 Sino-Tibetan languages):

Universalone: other semantic properties ⊃ distance.

Universal two: set of semantic properties attached to proximal demonstratives ⊃ same set of properties also attached to distal demonstratives.

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Language typology and linguistic-gestural conceptualization of motion events

In the linguistic representation of motion events, English is a satellite-framed language which has a class of verbs that incorporate the motion and manner information, whereas path is an adjunct; Spanish is a verb-framed language, in that motion and path are lexicalized as a single verb, while manner is an adjunct (Talmy 1985). Chinese is regarded by Slobin (2000) as a serial-verb language, since each verb in a series is morphologically unmarked and monosyllabic, and manner is not syntactically subordinated to path (Slobin 2000:228). The spoken data in Huang and Tanangkingsing (2005) show that Mandarin is a strongly verb-serializing language.

Based on the different lexicalization patterns in the expression of manner, Slobin (2004) made a claim about the relationship between language typology and saliency: Information about manner is regularly and readily provided in high-manner-salient languages; manner information in low-manner-salient language is provided only when manner is foregrounded. Gesture can provide visible evidence for the discussion of language typology and conceptualization. The purpose of this study is, thus, to examine the gestural depiction of motion-event components in Chinese conversational discourse, and to compare the results with those found in other typologically different languages, to understand the relationship among gesture, language typology and conceptualization of motion events.

The data used in this study are casual daily conversations among college students, family members, and friends. The gestures are the idiosyncratic spontaneous movements of hands and arms which accompany a speech event with context-dependent meaning and use. 199 linguistically expressed motion events were found to include gestures, and 92% (183 instances) has the manual depiction of only one motion-event component in a single gesture. The frequency distribution of all the gestures across the various motion-event components is as follows: manner gestures (16.1%, 32 instances); path gestures (53.3%, 106 instances); ground gestures (4.5%, 9 instances); one occurrence of figure gesture. Due to the rarity of ground and figure gestures, the discussion will focus on manner and path. First, of all the 95 motion events that include linguistic representations of manner, only 33.7% (32 instances) have the manual enactment of manner. As to the total of 120 motion-event events with path information in speech, imagistic representations of path constitute 88.3% (106 instances). Since similar results were also found in Chinese narrative discourse, Chinese speakers do gesture path much more commonly, despite the prevalence of manner in speech.

Motion-event gestures were mainly performed in the central gesture space with noticeable and discernable configurations, suggesting saliency in conceptualization. According to Slobin (2004), Chinese is a high-manner-salient language, but our findings show that manner is not commonly gestured as salient information. Instead, speakers prefer gesturing path. Similar results can be found in English, Spanish, Japanese, and Turkish (Allen et al. 2007; McNeill & Duncan 2000; Özyürek et al. 2005; Özyürek et al. 2008), showing that the way people gesture motion events does not have to do with linguistic typology. Gesture and language are parts of the same system (Lakoff 2008; Langacker 2008). The finding that path is the salient component in manual configurations across various languages exhibits a universal pattern of the linguistic-gestural conceptualization of motion events.

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Grammaticalization of prospectives and futures from a verb 'to go': the Neo-Aramaic case and its cross-linguistic parallels

Some Neo-Aramaic dialects have developed a gram for prospective aspect that contrasts with a future tense. The availability of a long written record for Aramaic, as well as new fieldwork data for spoken dialects at varying stages of the grammaticalization cline make this an ideal case study for the grammaticalization of prospectives and future tenses.

Much has been written on the grammaticalization of futures, but too seldom has a distinction been made either in synchronic descriptions or diachronic studies between future tense and prospective aspect. Prospective aspect, according to Comrie (1976: 64), is „where a state is related to some subsequent situation". As such, it is the mirror image of perfect aspect, where a state is related to a preceding situation. The English *going to* future is an example of a gram expressing prospective aspect. Typically it is used when there is present evidence that a future event will take place, as in 'He's going to fall!' It exists alongside a future tense with no such present state component, i.e. the *will* future.

The distinction between prospective and future is important also because of its relevance to a diachronic account of the development of futures. While futures develop from various sources, prospectives seem to derive predominantly from a translocational verb 'to go' (although this link is difficult to establish with certainty, given the vagueness of descriptions of future functions in many grammars). Prospectives, moreover, often go on to develop into futures: thus they represent an earlier stage along the cline. The detailed knowledge we have of Aramaic varieties allows us to follow closely the various stages of the grammaticalization of a verb 'to go' to prospective and towards a general future.

It has been suggested (Bybee and Pagliuca 1987: 116, Bybee, Pagliuca and Perkins 1991: 30) that a future developed from a translocative verb will derive from a verb in an imperfective form, where such a form is available. The evidence from Neo-Aramaic seems, on the face of it, to contradict this, but a closer analysis shows that the form used, though not strictly imperfective, has in common the expression of a current situation leading to a future one: this model needs, therefore, to be modified rather than abandoned.

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Microtypology and the Tsezic Languages

While linguistic typology has been concerned primarily with the study of cross-linguistic variation by means of worldwide samples, there is also room for consideration of the contribution that can be made by the study of microvariation within a small group of genetically or areally related languages. This methodology is, for instance, well developed within generative grammar, where the variation across different Romance varieties spoken in Italy, to cite the most prominent example, has given rise to a fruitful interplay between the details of particular varieties and the general typological space occupied by a particular phenomenon. This presentation proposes to illustrate microtypology by analyzing two topics that show such microvariation among the Tsezic languages, a group of 5-6 languages within the Nakh-Daghestanian (East Caucasian) language family. The microvariation within the Tsezic languages is viewed consistently against the more general background of worldwide typological variation for the phenomena in question.

1. Clause alignment types

While the Tsezic languages in general agree in having an overall ergative-absolutive morphological alignment, with S and P in the Absolutive and A in the Ergative, the East Tsezic languages (Hunzib and Bezhta) differ from their West Tsezic relatives in also having a small number of intransitive predicates with their single argument in the Ergative case, i.e. an apparent instance of agentive-patientive (active-inactive) alignment. Comparison of the details of the behavior of these verbs across the Tsezic languages enables a more nuanced assessment to be made both with regard to the internal development of the Tsezic languages and with regard to their place within overall alignment typology. The origin of the construction is argued to be the reinterpretation of a very specific configuration, rather than a general phenomenon of active-inactive alignment. The construction is argued to have been present at an earlier stage of West Tsezic, with clear evidence from some West Tsezic languages (Tsez, Khwarshi) of relics of the earlier situation.

2. Reflexives and reciprocals

Nearly all languages investigated to date require that in a reflexive or reciprocal relation between two arguments of a predicate, the antecedent be the more prominent argument (e.g. the A), and the anaphor the less prominent (e.g. the P). West Caucasian languages like Adyghe have been cited as exceptions, but this possibility in such languages has been attributed to the fact that the markers of reflexive and reciprocal are bound morphemes rather than independent noun phrases. The different Tsezic languages show, to different degrees from language to language and to a greater extent with reciprocals than with reflexives, constructions where the reflexive or reciprocal either must be the antecedent, or is preferably the antecedent, or may dispreferably be the antecedent. The range of variation is documented and the hypothesis advanced that such a relation between less prominent antecedent and more prominent anaphor is possible (but by no means required) only in languages that otherwise have significant ergative alignment.

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Semantic role complexes and role granularity: a quantitative verb-based approach

Semantic argument roles have been formulated at a verb-specific level (e.g. 'hitter' and 'hittee', 'breaker' and 'breakee', 'lover' and 'lovee', 'fearer' and 'fearee'; "micro-roles"), at an intermediate level (e.g. 'agent', subsuming hitter and breaker, or 'experiencer', subsuming lover and fearer, etc.; "meso-roles"), and at a level that is close to the level of argument realization (especially argument coding by case/adpositions and person indexing) (e.g. Actor, subsuming agent and experiencer, Undergoer, subsuming patient and stimulus; "macro-roles") (see, e.g. the gradual collapsing of semantic roles in Van Valin's Role and Reference Grammar, Van Valin 2005 and passim).

The problem with the verb-specific level of micro-roles is that it has no within-language generality, and the problem with the argument-realization level of macro-roles is that it has little cross-linguistic generality. As a result, linguists have typically worked at the level of meso-roles. This level appears to be general within a language (allowing us to account for the similar behaviour of 'break', 'hit', etc.) and distinctive for cross-linguistic comparison (allowing us to express many salient differences between languages, such as the contrast between experiencer-subject constructions and oblique-experiencer constructions). However, the meso-role level is far from sufficient, because there are different granularity levels that have some justification or other (micro-meso-roles and macro-meso-roles, or sub-roles and role complexes).

In this presentation, we pursue a new approach to the clustering of micro-roles that does not attempt to settle on a level of meso-roles with a dual role of allowing both within- language description and cross-linguistic comparison. Instead, we compare micro-roles directly in terms of their argument realization, in a comparable sample of 70 verb meanings across a sample of 10 languages from different parts of the world. (Eventually we hope to have complete data for about 40 languages, but by the time of the Zurich workshop, not all data will be in yet.) Since the verbs correspond closely across languages, the micro-roles of the verbs can be seen as equivalent across languages and compared in terms of their realization/coding. Realization/coding patterns differ dramatically across languages and do not allow for immediate comparison, but we can ask which of the micro-roles tend to be coded in the same way not only within a language, but also across languages.

To the extent that the 70 verb meanings are representative of the entire verb lexicon, and to the extent that the counterpart verbs are semantically equivalent, this approach yields an objective clustering of micro-roles into semantic role complexes that are motivated by argument coding. We thus get a kind of semantic map of micro-roles. Statistical clustering techniques (such as Neighbornet and k-means) are used to analyze the similarities.

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The essive/functive in typological perspective

In the literature, the existence of an *essive/functive* case carrying the meaning of a temporary state of being or function, often equivalent to English 'as N' ('as a child', 'as a doctor'), is mainly acknowledged in descriptions of Uralic languages, but the function considered central in the semantics of Uralic essives is found in other languages as a possible function of case markers or adpositions whose designation refers to other functions considered more central.

Basque attests the possibility that essive/functive adjuncts are encoded by NPs devoid of any mark of their function even in languages with a rich system of cases of adpositions, but the expression of this meaning more commonly involves cases or adpositions, and the paper I would like to present at ALT9 deals with the syncretisms in which case markers or adpositions used for the expression of a temporary state of being or function are involved cross-linguistically, and the grammaticalization processes that may be responsible for the polysemy patterns observed in this domain.

The cases or adpositions encoding a temporary state of being may be also used for predicative complements of verbs of change (a function for which Finnish and other Uralic languages have a special *translative* case). This can be illustrated by the Mandinka postposition *ti*. Mandinka (Mande) illustrates not only the *essive/functive-translative* syncretism, but also the *essive/functive-comparative* syncretism. In several Mande languages (including Mandinka), the postposition used for the expression of a temporary state of being or function is also obligatory in nominal predication expressing permanent identification. The *essive/functive-instrumental* syncretism, illustrated by Russian, seems to be common. South and West Caucasian languages have an *essive/functive-manner* syncretism, with the same suffixes used in essive/functive function and in the derivation of manner adverbs from adjectives. The *essive/functive-comitative* and *essive/functive-benefactive* syncretisms, more surprising at first sight, are however found in the Mande languages Soso and Bambara respectively.

Concerning the possible origins of cases or adpositions having the expression of a temporary state of being among their possible functions, connections with the expression of spatial relationships or with the expression of manner are widely attested. Evolutions from originally spatial cases or adpositions may explain syncretisms that have no direct functional explanation. For example, comparative data suggests that the essive/functive-comitative postposition of Soso originates from a locational noun that grammaticalized first into a spatial postposition before developing more abstract uses and eventually losing its original spatial uses. But other grammaticalization paths are possible. For example, the East Caucasian languages of the Avar-Andic-Tsezic branch have essive-translative suffixes of nouns whose origin can be traced to the converb of a verb reconstructed with the meaning 'become', and some other East Caucasian languages express the essive/functive function by means of complex markers combining a suffix used to derive abstract nouns ('the quality of being an X') with a locative suffix.

Michael Cysouw (Ludwig Maximilians University Munich)
Typology without types: quantitatively inducing a numeral system typology

Compiling a typology traditionally involves categorizing languages into discrete types ("categorization"), or positioning them on a continuous scale ("linear measurement"). For example, to obtain a categorization of word order one might classify a language as either being VO or OV, while for a linear measurement one might establish the fractional occurrence of VO clauses in a text collection for each language. I will argue that both these kinds of typologies are a special case of a more general approach to typology in which there are no types. In this approach, every language is different from all other language, so every language will be its own type type. However, not all languages will be equally different from all others. Some are more similar to each other than others. These similarities define the typology.

In such a typology without types, the dissimilarity between all pairs of languages in the sample is the basic empirical observations. The resulting table of pairwise dissimilarities is the typology, though a somewhat unusual one from a traditional perspective. However, by using various established statistical techniques (viz. various forms of clustering and/or dimensional scaling), it is easily possible to derive a traditional categorization or a linear measurement from a table of pairwise dissimilarities. With such statistics also comes a notion of suitability, indicating to which extent the resulting categorization or linear measurement represents the underlying dissimilarities. Conceiving of typology as establishing pairwise dissimilarities between languages opens up various new possibilities to make typologies, and turns out to be statistically much more powerful than traditional conceptions.

This approach to doing typology will be exemplified by the concrete case of quantitatively inducing a typology of numeral systems. There is a long tradition in classifying the structure of numerals across the world's languages, and this topic is specifically chosen here for the new method to be testable against traditional classifications. We use a selection of the enormous amount of data from Chan (2010) to automatically induce the typology of Comrie (2008).

The basic idea of the quantitative approach is to define the "type" of a language as a complex construct which consists of the relations in form between all pairs of (a selection of) numerals in each language. Such (long) tables with language-specific relations can be compared to each other, and the pairwise comparison of all languages will result in a metric on language diversity, what we would like to call a "typology without types". From this metric, it turns out to be trivial to statistically separate decimal from vigesimal systems. Figure 1shows a NeighborNet separating the decimal language on the left from the vigesimal languages on the right. French and Danish appear in between these two classes. The other, much more rarer, types from Comrie (2008) are more difficult to disseminate. In contrast, the decimal systems appear to be much more variable than traditionally assumed in numeral systems typology, and it seems worthwhile to propose a more fine-grained sub-classification in this realm.

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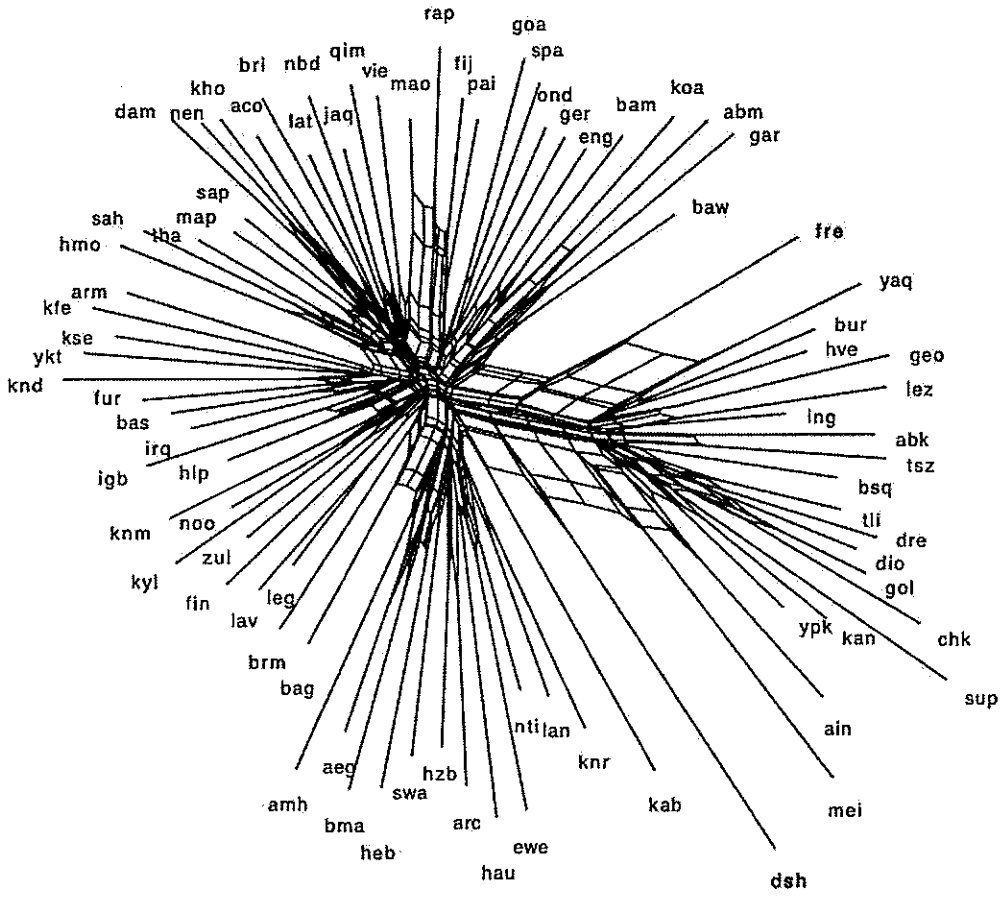
Figure 1. NeighborNet of numeral systems, separating decimal (left) from vigesimal (right) with French and Danish in between these two types.



Federcia Da Milano (University of Milano-Bicocca)
Impersonal uses of personal pronouns in East Asian languages

As Kitagawa and Lehrer (1990) have pointed out, although the use of the 2nd person singular for an impersonal is crosslinguistically widespread, not all languages permit such an extension. Their hypothesis is that the extension of the 2nd person pronoun to an impersonal is possible only in languages with small, closed pronouns sets.

The impersonal use of personal pronouns is not discussed in reference grammars and data beyond just a few examples are available virtually only for some European languages.

The aim of this paper is to analyze impersonal uses of personal pronouns in East Asian languages: the analysis will be based on data obtained through a questionnaire.

An interesting example is represented by languages such as Japanese and Korean: neither Japanese nor Korean, as other East Asian languages, possesses a clearly defined closed set of personal pronouns. As Bhat (2004) pointed out in his monograph on pronouns in cross-linguistic perspective, a question has been raised as to whether some of the Southeast Asian languages like Burmese, Thai and Japanese can be regarded as not possessing any personal pronouns at all; these languages use different nouns instead of pronouns in order to indicate social status, politeness, etc.
For example, the impersonal sense of:
(1) *you react instinctively at a time like that*

corresponds to Japanese (2) and Korean (3):

(2) *sooiutoki-ni-wa honnooteki-ni ugoi-te sima-u*
such time-at-TOP instinctively moving end-up-PRES
(3) *kirŏl-ttae-n paro hayngtong-il chwihae-yaci*
such-that-time-TOP immediately action-OBJ show-should
(Kitagawa/Lehrer 1990:755)

where the impersonal sense is expressed by a 'zero pronoun'.

Crosslinguistically, also 3pl are often used as impersonals and one would expect 3pl impersonals, at least in the generic sense of the term, to be universal. However, this does not appear to be so. There are languages in which 3pl forms may receive only a definite reading. According to the respondents to a questionnaire elaborated by Siewierska (2008) this is the situation in Mandarin, Cantonese and colloquial Sinhala as well as Japanese, Vietnamese and Thai. That the latter three languages do not allow for an impersonal reading of the expression used for third persons is not surprising, since, as we said, they are typically seen as lacking true personal pronouns. The nominals that are used in lieu of pronominal forms continue to have transparent semantic content and are thus not easily interpretable as impersonal.

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Ideophonic compounds in East and Southeast Asia

Many East and Southeast Asian languages have large inventories of ideophones—words which vividly evoke perceptions and sensations. Some of them, like the Aslian (e.g. Tufvesson in press), Japonic and Korean languages, have large inventories of ideophones that are morphologically free. They also tend not to be used together with non-ideophones of similar meanings (if they exists at all, given the often highly- specific meanings of ideophones). For instance, in Okinawan, the ideophone *buttakwátta*, which describes a sticky and clingy state, is rarely used together with verbs (including attributive forms of verbs) like *takkwajuɴ* or *muccakajúɴ* 'stick'. In contrast to these languages with large inventories of free ideophones, there exists a linguistic area in the core of East and Southeast Asia where many ideophones are (canonically) bound to an adjective or verb. For example, in Southern Pinghua, *fəi*^{11}*-tut*^{5} *tut*^{5} (which describes an adorable type of fat stature) and *fəi*^{11}*-tɐn*^{53} *tɐn*^{53} (which describes a type of fat and short stature, usually undesired) are composed of the adjective 肥 *fəi*^{11} 'fat' and the bound ideophones of – *tut*^{5}*tut*^{5} and *-tɐn*^{53} *tɐn*^{53}, respectively. These chunks of adjective/verb plus ideophone are called 'ideophonic compounds'. Ideophonic compounds like these exist in a great number of languages in the area: some Mon-Khmer languages (e.g. Vietnamese *dài lượt thượt* (long IDEO), Mang *ʔe*^{55} *lep*^{51} *lep*^{51} (hard IDEO) (Gao 2003:84)), Hmong-Mien languages (e.g. Kaili Hmong *faŋ*^{55} *kɛ*^{31} *lɛ*^{31} 'beautifully yellow' and *faŋ*^{55} *ka*^{13} *la*^{13} 'uglily yellow' (Zhang & Cao 2005:134)), some Sino-Tibetan languages (e.g. Taiwanese *dziat*^{5}*-kun*^{53} *kun*^{53} (hot-IDEO), Tibetan དཀར་ཆབ་ཆབ *dkar chabchab* 'whitish') and Tai-Kadai languages (e.g. Northern Zhuang *laep-saengsaeng* (dark-IDEO); Lao ເຢັນຈອຍໆ *jên3 còòj4còòj4* (cool IDEO) (Enfield p.c.)).

There are a number of differences amongst the aforementioned languages in terms of their ideophonic compounds. First of all, presuming that the adjective/verb in an ideophonic compound is the morphological head, it seems that only Sinitic languages have right-headed ideophonic compounds, like Southern Pinghua *pʰɐn*^{25}*pʰɐn*^{25}*-jɐŋ*^{53} (IDEO-fragrant). However, the majority of ideophonic compounds in Sinitic languages are instead left-headed, and it is curious why Sinitic languages, where noun compounds and noun phrases are overwhelmingly right-headed, should have a large class of ideophonic compounds which are left-headed. In addition, in some Sinitic languages, right-headed ideophonic compounds are demonstrably more-marked phonologically (e.g. in Shanghainese, a word-tone language, left-headed ideophonic compounds have one tonal domain, e.g. *[baʔɕyɪʔɕyɪʔ* $^{1\text{-}1\text{-}13}$*]* 'snowy white', whereas the rarer right-headed ideophonic compounds have two tonal domains, e.g. *[ɕyɪʔɕyɪʔ*$^{3\text{-}4}$*][baʔ*^{2}*]* 'snowy white'). Another difference is whether the ideophones are actually morphologically bound or not: in Sinitic languages, the ideophone are always morphologically bound to the adjacent adjective/verb, whereas in Vietnamese, the ideophones can occur without the accompanying adjective/verb, albeit less frequently. An even looser form of ideophonic 'compound' is the type in Hmong where the adjective/verb and the ideophone can have an intervening noun: Kaili Hmong *ɕau*^{12} *ki*^{33} *li*^{33} (red IDEO) 'reddish', *ɕau*^{12} *mi*^{23} *ki*^{33}*li*^{33} (red face IDEO) 'reddish face' (Zhang & Cao 2005:104). In terms of semantics, there seems to be a hierarchy of semantic domains where ideophonic compounds are likely or unlikely to be found; in the aforementioned languages with ideophonic compounds, colour seems to be the category most frequently found to form ideophonic compounds. (Curiously, colour ideophones are lacking in the Japonic languages.) It is hoped that a typological study of the ideophonic compounds would contribute to the understanding of this areal phenomenon.

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Typology of reflexives – Unity in variation

The last few decades of cross-linguistic research yielded converging evidence that languages employ special strategies to express reflexivity (binding of co-arguments of a predicate) (e.g. Faltz 1977, Farmer & Harnish 1987, Genusiene 1987, Reinhart & Reuland 1993, Lust et al. 2000, Levinson 2000, Schladt 2000, Moyse-Faurie 2008, and Heine & Miyashita 2008). Refining their findings, we will argue that, what makes reflexivity special is the need to avoid two identical variables on a verbal grid, in line with Reuland (2008), reflecting a universal of the grammatical system, rather than a pragmatic universal (contra Farmer & Harnish 1987, Levinson 2000), and that languages employ just a limited set of strategies to express/license reflexivity.

We predict that there are two types of licensing strategies: protection of the argument (adding a marker such as *–self*, a body part, a doubled pronoun – all with secondary semantic effects such as focalization or intensification (König & Siemund 2000, Gast 2008)) or a valence-reducing operation (Reinhart & Siloni 2005). In some languages valence reduction requires dedicated morphology (verbal markers (Genusiene 1987), infixes, stem change, clitics), in others there is no visible marking (English), or a simple reflexive or even a pronoun may be used. A crucial variable involved is the Case system (Dutch versus Frisian and Old English - Van Gelderen 2000).

Schladt (2000) gives an overview of different types of reflexive markers in a sample of 150 languages which have a traceable lexical source of the reflexive marker. We complement this study by looking at the reflexive strategies across languages irrespective of the source, form or overall existence of a 'special' reflexive. One finding is that elements protecting an argument need not be anaphors in the Chomsky 1981 sense, as shown by Malayalam (Jayaseelan 1997), and Peranakan Javanese (Cole et al. 2008). A widely prevalent language type employs either a protecting strategy or a valence reducing strategy, where the selection of strategy depends on verb class (as e.g. in Germanic, Romance, Slavic, Georgian, Sakha, etc.). Boone (2009) finds that Iroquoian and Muskogean are also of this type. Kannada and Telugu also exemplify these two strategies (Lidz 1995, Lust et al. 2000). Franssen (2010) finds that 52 % of his sample of Australian languages only use a valence reducing strategy.

Our typology of reflexives reflects both the commonalities and the range of variation, and accommodates reflexives from Frisian to Fijian. We will specifically address some languages that appear to challenge our approach, in that they do lack a reflexive marker and prima facie a pronoun-anaphor distinction. This has been reported for Fijian (Dixon 1988).

(1a) null-object

sa	va'a-.dodonu-.ta'ina	Ø	o	Mika
asp	correct	3sg+obj	art	Mike

'Mike$_i$ corrected him$_j$.'

(1b) pronominal object

sa	va'a-.dodonu-.ta'ini	'ea	o	Mika
asp	correct	3sg+obj	art	Mike

'Mike$_i$ corrected himself$_i$.' or
'Mike$_i$ corrected him$_j$.'

Fijian allows null-objects. However, no reflexive interpretation is available, as the object

lacks protection. The pattern of (1b) follows if the overt pronoun is used to protect the argument, much like in Malayalam *taan tanne*. That is, *'ea* is in fact [*Ø 'ea*]. A similar account applies to inanimate objects in Chamorro (Chung 1987).

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Michael Dunn (Max Planck Institute for Psycholinguistics)
Fiona Jordan (Max Planck Institute for Psycholinguistics)
Historical interdependencies are data, not noise!

Attempts to generalize about correlations between typological features are confounded by shared history. Form a paraphrase of Galton discussing the same problem in culturally transmitted features: "some concurrences might result from transmission from a common source, so that a single character might be conunted several times form its mere duplicates" (Tylor 1889:272). In the field of linguistic typology a popular solution has been at attempt to compile an independent sample upon which to base generalizations (Perkins 1980; Dryer 1989; Nichols 1992), but genealogical independence is particularly hard to achieve. According to the Ethnologue classification of languages the mean size of a family is only five and the median size is one, yet two thirds of languages belong to just six big families. Thia means that the rich information about within family diversity is lost under a strict independent sampling approach. Attempts have been made to expand the sample size of languages usable in a statistical analysis by taking into account levels of genealogical relatedness (Dryer 1992; Bickel 2008), but these methods only begin to exploit the information available from genealogically structured variation in languages.

Phylogenetic comparative methods, developed within computation biology, provide a solution to "Galton's problem". They start from the known relationships between taxa (species, langauges) and model variation takng this known history into accout. Rather than analyzing independent instances of languages, phylogenetic comparative methods work form the identification of independent *events* of typological change (Mace and Pagel 1994). In this paper we will use data from Austronesian, Bantu, Indo-Europeaan and Uto-Aztecan to demonstrate methods which allow us to ask questions about the distribution of typological diversity while controlling for hierarchical relatedness. Sampling can show associations between features, but only phylogenetic methods allow on to assess whether relationships are causal, that is, whether a change in one typological feature is regularly associated with changes in another across the tree. Furthermore, phylogenetic comparative methods allow detection of family-internal evolutionary dependencies not visible from ahistorical typological surveys.

Dependencies between typological features can be produced by multiple causal routes, and phylogentic comparative methods allow us to infer thes specifc models of typological change. We will show how these methods enable us to test competing hypotheses about processes of typological change, and demonstrate that even where there is a clear consensus about the existence of cross-lineage typological dependencies (such as between certain aspects of word order variation) that the exact evolutionary processes underlying this variation differ markedly from family to family.

This paper demonstrates that once we engage with language as an evolving system, then we will find that the tools already exist to incorporate phylogenetic information into our study of linguistic diversity – allowing us to investigate processes as well as patterns.

Stefanie Fauconnier (University of Leuven)
Non-volitionality: at the crossroads between voice, aspect and mood

This paper examines the different functions that are cross-linguistically associated with markers used in involuntary Agent constructions (IACs) such as "John accidentally broke the glass" (Kittilä 2005). On the basis of data from a 200-language sample, I argue that the cross-linguistic polysemy of these markers is more extensive than is usually assumed, covering three different domains, namely voice, aspect and mood. Furthermore, I propose explanations for these polysemies, and examine their implications for the semantic concept of volitionality, which turns out to be relevant on the level of the entire event, and not just the Agent.

First, the link between detransitive voice and IACs was already noticed by Kittilä (2005). I take this one step further by arguing that not every type of detransitivizer can be used in IACs. This is only possible with anticausative markers (see the IAC in (1)), which normally eliminate the Agent from the syntactic and semantic structure of a transitive clause (Haspelmath 1987). This link between anticausatives and IACs is functionally well-motivated, since both constructions are associated with uncontrolled events.

GUUGU YIMIDHIRR (Haviland 1979:125)

(1) *ngadhun-gal* *galga* *dumbi-idhi*
1SG-ADESS spear[ABS] break-**ANTICAUS**.PST
'I accidentally broke the spear'

Second, there is a link between aspect and IACs in that IACs can be characterized by resultative markers, as in (2). Again, this link can be explained: IACs may use resultative markers, which emphasize the endpoint of the action, i.e. the Patient, to signal that there is no canonical Agent at the starting point of the action (see also DeLancey 1985).

JAPANESE (Ono 1992:381)

(2) *Kooichi-ga* *shorui-o* *yabui-te-shimat-ta*
Kooichi-TOP document-ACC tear-LINK-**RESULT**-PAST
'Kooichi tore up the document unintentionally'

Third, markers used in IACs can also express ability, i.e. a dynamic modal function (compare (3a) with (3b)). This link between mood and IACs is less direct, since the polysemy is never exclusively restricted to these two concepts. The marker in question always has an additional third meaning, wich semantically links IACs with modality. This third meaning can be associated with either anticausatives (see above), or so-called "manage-to" semantics, as in (3a). See Narrog (2010) for the link between detransitivization and modality, Enfield (2003) on manage-to and modality, and Thompson (1985) on manage-to and IACs.

ST'ÁT'IMCETS (Davis et al. 2009:210–212)

(3) a. *ka-gwél-s=kan-a*
MODAL-burn-CAUS=1SG.SUBJ-**MODAL**
'I accidentally set it on fire/managed to get it lit'
b. *wá7=lhkan* *ka-cát-s-a*
IMPF-1SG.SUBJ **MODAL**-lift-CAUS-**MODAL**
'I can lift it'

Finally, I argue that these polysemies are important with respect to the semantic categorization of the concept of volitionality, which is traditionally considered as a feature associated with prototypical Agents (e.g. Dowty 1991). My results, however, show that both the semantics and the formal marking of IACs correlate with voice, aspect and mood, which are associated with the proposition as a whole. It thus seems that volitionality is not merely

linked to the Agent, but is important on the level of the entire event: IACs are coded as events which develop differently from volitionally instigated ones.

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M.M. Jocelyne Fernandez-Vest (CNRS, University of Paris 3)

Typology of partitives: a discourse-cognitive comparison of Finno-Ugric partitives with their translational equivalents

The most recent investigations of Partitives have brought forward a distinction between the Partitive as a morphological case, which exists notably in Basque and in Finnic languages, and Partitive as a semantic notion, often expressed by other cases (ablative / elative / genitive) – see Luraghi & Huumo (eds.) 2010). The Partitive neither corresponds to the traditional functions of « case » (Moravcsik 1978), nor respects the boundary case/adposition (Hagège 2009); marking « non canonical subjects and objects » (Sands & Campbell 2001), Partitive is an unavoidable pivot of the (Finno-Ugric/Uralic) Finnic grammar. As the result of a study of the Finnish Partitive (FIP) in a discourse-cognitive perspective, centered on FIP as a mark of the Object (and excluding its automatic use in a negative/dubitive sentence), I compare the main criteria for choosing the FIP: context/cotext, situation, or simply the inherent aspect of the verb? The verbs of the corpus (oral/written, impromptu speech, literary excerpts) are classified into 3 categories – RES (resultative), IRR (irresultative) and RES-IRR (resultative-irresultative), according to their most typical aspectual meaning. This repartition, based on /+ and – values/ (FIP O = verb [– decisive change] and situation [– end point], to be combined with the aspect of the verb (RES/IRR/RES-IRR) and its internal variation (derivation suffixes)) shows the great number of RES-IRR verbs (nearly 50%) and the ground difference betwen activity verbs and mental verbs (nearly 70% of the second take a FIP O — Askonen 2001). The discussion of the respective choice criteria is nourished by a comparison between Finnish texts and their translation into other FU languages – with (Estonian) or without (Northern Sami) a Partitive case – and neighboring Indo-European (Scandinavian) languages. The role of this special case for the information structuring of the sentence and discourse is apprehended through the variations of translation: fictive dialogues (novels, theater) and how the translator 1/ transfers a selection of the combined features of FIP into a Partitive lacking language, 2/ tries to reconstruct a difference of topicality or definiteness when FIP has neutralized it (e.g. in negative sentences, Fernandez-Vest 2009), 3/ makes explicit with FIP a polarity which was only latent. Notions borrowed from cognitive linguistics are referred to, e.g. Talmy's sequential perspectival mode (local scope of attention), as opposed to synoptic perspectival mode.

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Ines Fiedler (Humboldt University Berlin, Germany)
The nature of complex predicates in Ama (Nilo-Saharan)

A considerable part of the verbal lexicon in Ama consists of complex predicates "composed of more than one grammatical element (...), each of which contributes part of the informations ordinarily assiciated with a head." (Alsina, Bresnan and Sells 1997: 1). In Ama, complex predicates are built out of a preverb and a main verb, the latter carrying tense, aspect and number inflection. The preverb determines the semantics of a predicate with generic verbs, such as 'to do', or concretizes the meaning of the main verb, as in (1):

(1) múì/mɔ 'to rise, to travel' (IPFV/PFV)
fīr múì/mɔ 'to jump'
dídídì múì/mɔ 'to skip'
tɛtɛŋmúì/mɔ 'to get up'
fīnīau múì/mɔ 'to wake up'

The paper aims at discussing some properties of complex predicates in Ama, their implications for the interpretation of the construction in the language itself and in comparison to similar constructions in and outside the African continent (cf. Güldemann 2005).

1. Complex predicates are attested in the lexicon to occur with quite a lot of different lexical verbs. By far most are represented by instances of the generic verb 'to do', around 20 other verbs are also found regularly in this construction (cf. example 1). Furthermore, the same pre- verb can occur with different inflected verbs, resulting in different interpretations (2). It will be investigated which semantic relations between preverb and inflected verb are attested, and what impact this has for the analysis of the inflected verb (cf. Bowern 2010). Is it possible to see all of them as verbal classifiers (cf. Mc Gregor 2002) or do we need a further differentiation?

(2) fīnīau ŋɔrùf 'to snore' (lit. sleeping snore)
fīnīɛ tùŋ 'to sleep' (lit. sleeping lie_down)

2. What is the origin of preverbs in Ama complex predicates? It will be shown that they do not constitute a coherent class, but rather consist of different parts of speech (nouns, verbs, adverbs, onomatopoetic forms, etc.). Furthermore, Arabic loans also tend to become preverbs, so that we can assume that preverbs in Ama constitute an open class (cf. Schultze-Berndt 2003).

3. The preverb always precedes the verb. In most cases, nothing intervenes the two elements of a complex predicate, but the negation marker *há* (3) (as well as the predication focus marker ká) is allowed to separate the predicate. What are the special properties of these two elements that they may intervene?

(3) à bá sá bɔrgəlɛì há ɲɔn.
1S TF watch steal NEG take
'I didn't steal the watch.'

4. In (3), the preverb does not change the argument structure of the verb 'to take'. But the valency of the verb might be changed by derivational morphology. We will have a closer look wrt. this feature on complex predicates containing other verbs.

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Simon Fung (University of Alberta)
Voice and applicatives in Tagalog

Tagalog has often been described as having anywhere from five to eight voices or focuses, which are marked by a set of verbal affixes (Hirano 2008, Katagiri 2005, Schachter and Otanes 1972). However, many of these constructions do not merely reassign different grammatical relations to the verbs' semantic arguments, but also add an extra semantic argument to the verb. For example, (1) and (2) are usually identified as being different voices of *bili* 'to buy,' even though *ibinili* requires a beneficiary and *binili* does not (examples from author's fieldnotes):

(1)	B<in>i~Ø-li-Ø	ni	Juan	ang	radyo
	<PASS.REAL>buy~PERF-buy-REAL	GEN	Juan	NOM	radio
	'Juan bought the radio.'				

(2)	I-b<in>i~Ø-li	ni	Juan	si	Maria	ng radyo
	BEN-<PASS.REAL>buy~PERF-buy	GEN	Juan	NOM	Maria	GEN radio
	'Juan bought the radio for Maria.'					

The verbs in (1) and (2) not only assign different syntactic relations to the same semantic argument (for *radyo*), but *ibinili* also has one more semantic argument than *binili*, the beneficiary *Maria*. This means that *ibinili* is not a voice alternation of *binili*, but a valency-increasing construction (see Mel'čuk (2006) for a rigourous description of the contrast).

Beck (2009) identifies two types of valency-increasing constructions, causatives and applicatives. In Tagalog, semantically, the additional arguments have the same semantic roles as the applied argument of typical applicative constructions in other languages: directions and recipients, beneficiaries, instruments, locations, reasons, and comitatives (Peterson 2006). Syntactically, however, they are atypical; while applied arguments are defined as syntactic objects (Beck 2009), the additional arguments in Tagalog (with the exception of comitatives) always occur as syntactic subjects, in the nominative case (the controversy over subjecthood in Tagalog will be addressed). These applicative-like constructions do occur in the passive voice, but have no active-voice counterparts (again with the exception of comitatives).

Although unusual, this pattern has been observed in other languages. For instance, in Dyirbal, the instrumental applicative introduces the instrument in the absolutive case, which usually marks the syntactic subject. More similarly, the Japanese construction known as the *adversative passive* also introduces maleficiaries as subjects (examples from Mel'čuk 2006):

(3)	Ziroo	no	haha	ga	sin-da
	Ziroo	GEN	mother	SUBJ	die-PERF
	'Ziroo's mother died.'				

(4)	Ziroo	ga	haha	ni	sin-are-ta
	Ziroo	GEN	mother	DAT	die-MAL-PERF
	'Ziroo's mother died on him.'				

These examples motivate a slight modification to the definitions of causatives and applicatives: when in the same voice, applied arguments occur in the same syntactic relation as prototypical patients, while causers occur in the same syntactic relation as prototypical agents.

To support my claims about Tagalog applicatives, I conduct a survey of 368 Tagalog verbs, with examples gathered from the internet, dictionaries, and native speakers. These examples show that while some verbal constructions are true voices, while others have an additional semantic argument, and are applicatives, according to the modified definition.

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Dmitry Gerasimov (Institute for Linguistic Studies, Russian Academy of Sciences)
The case for universal hierarchy of functional heads: Guaraní vs. Cinque

Observing cross-linguistic similarities in adverb placement and affix/particle ordering, [Cinque 1999] argues for a fine-grained universal hierarchy of functional heads corresponding to various TAM categories:

(1) [*frankly* $\text{Mood}_{\text{speech act}}$ [*fortunately* $\text{Mood}_{\text{evaluative}}$ [*allegedly* $\text{Mood}_{\text{evidential}}$ [*probably* $\text{Mod}_{\text{epistemic}}$ [*once* T(Past) [*then* T(Future) [*perhaps* $\text{Mood}_{\text{irrealis}}$ [*necessarily* $\text{Mod}_{\text{necessity}}$ [*possibly* $\text{Mod}_{\text{possibility}}$ [*usually* $\text{Asp}_{\text{habitual}}$ [*again* $\text{Asp}_{\text{repetitive (I)}}$ [*often* $\text{Asp}_{\text{frequentative (I)}}$ [*intentionally* $\text{Mod}_{\text{volitional}}$ [*quickly* $\text{Asp}_{\text{celerative (I)}}$ [*already* T(Anterior) [*no longer* $\text{Asp}_{\text{terminative}}$ [*still* $\text{Asp}_{\text{continuative}}$ [*always* $\text{Asp}_{\text{perfect (?)}}$ [*just* $\text{Asp}_{\text{retrospective}}$ [*soon* $\text{Asp}_{\text{proximative}}$ [*briefly* $\text{Asp}_{\text{durative}}$ [*characteristically*(?) $\text{Asp}_{\text{generic/progressive}}$ [*almost* $\text{Asp}_{\text{prospective}}$ [*completely* $\text{Asp}_{\text{SgCompletive (I)}}$ [*tutto* $\text{Asp}_{\text{PlCompletive}}$ [*well* Voice [*fast/early* $\text{Asp}_{\text{celerative (II)}}$ [*again* $\text{Asp}_{\text{repetitive (II)}}$ [*often* $\text{Asp}_{\text{frequentative (II)}}$ [*completely* $\text{Asp}_{\text{SgCompletive (II)}}$ [Cinque 1999: 106]

While Cinque's theory has spawned a lot of discussion, most publications both pro and contra focus on the syntactic behaviour of adverbs (see [van Craenenbroeck (ed.). 2009] and references therein). Works dedicated to consequences of Cinque's proposal for the typology of affix ordering remain a few, to say the least. This is a lamentable gap, since Cinque's claim on that part are pretty radical and their verification appears easier than in the case of adverbs, since affixes generally manifest more rigid order, much less prone to obscurement by phenomena such as focusing, modification of one element by another, etc.

This study presents morphological template for the verb in modern Paraguayan Guaraní, more precise and detailed than that in [Gregores, Suárez 1967: 151–155]. Ordering of Guaraní TAM suffixes provide an apparent counter-example to Cinque's universal hierarchy. While not all suffixes can unambiguously be identified as manifestations of certain functional projections, those that can give evidence in favour of the following hierarchy (relative ranking of heads divided by slash is still not clear):

(2) $\text{Mood}_{\text{evidential (I)}}$ > T(Past) > $\text{Mood}_{\text{evidential (II)}}$ > $\text{Mod}_{\text{necessity}}$ > $\text{Asp}_{\text{prospective}}$ > $\text{Asp}_{\text{habitual}}$ / T(Anterior) > $\text{Asp}_{\text{proximative}}$ > $\text{Asp}_{\text{continuative}}$ / $\text{Asp}_{\text{repetitive (II?)}}$ > $\text{Asp}_{\text{completive}}$ > $\text{Asp}_{\text{retrospective}}$

The ordering summarized in (2) deviates in several aspects from the purportedly universal hierarchy in (1), thus providing empirical counter-example against Cinque's generalizations. Yet the latter summarize striking similarities between a large number of unrelated languages. While most probably not universal, the hierarchy in (1) reflects a very widespread areal and/or genetic feature. In the remainder of the talk, I am going to discuss several options for modification of Cinque's theory in order to reconcile it with the Paraguayan Guaraní data. Two approaches seem to be most worthy of attention: the grammaticalization approach and the nanosyntactic approach.

Under the first approach, apparent violations of the Cinquean ordering of affixes which is assumed to be the basic one are ascribed to the grammaticalization history of the affixes involved: it is natural to suppose that affixes relatively recently grammaticalized from verbs still retain some verbal properties and project a functional structure of their own. Thus, much like in the case of adverbs, affixes some may modify other affixes and not the verb. Paraguayan Guaraní, where many TAM suffixes can easily be traced back to verbal sources, provides an excellent testing ground for a hypothesis like this. We are going to illustrate the discussion with suffixes such as *-pa-* (completive; < *-pa* 'to end'), *-ta-* (prospective; < *-pota* 'to want'), and *-je(v)y-* (semel-repetitive < -jevy 'to return').

The nanosyntactic approach [Starke 2009] takes primary syntactic units to be submorphemic elements which are grouped into trees corresponding to morphemes and words in the course of derivation. Under this novel approach it seems logical to assume universal hierarchy of projections corresponding to elementary features (e.g. 'eventive', 'specific', 'past', 'negative', etc.) rather than to affixes. Cinque's hierarchy, like that in [Rizzi 1997], is just one way of clustering of such features into morphemic subtrees. This novel approach opens new fascinating vistas on typologically oriented study of languages that exibit TAM categories with uncommon and peculiar semantics.

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Matthias Gerner (City University of Hong Kong)
Verb categorization devices

I survey a representative sample of ca. 320 languages for their morphosyntactic implementation of "verb categorization devices". Departing from a statistical-distributional rather than a cognitive definition of classificatory phenomena (as in McGregor 2002, Gerner 2009), this study will scrutinize five major morphosyntactic types (and numerous subtypes):

A. Lexical Devices
   (1) By means of **core NP-arguments** [classification of verbs by number of possible NP arguments: intransitive, monotransitive, ditransitive] (nearly all languages)
   (2) By means of **adjunct NP-arguments** [a closed set of instrumental or temporal NPs show selectional restrictions for certain verbs in frequency constructions] (isolating languages of East Asia)
   (3) By means of **classificatory verbs** [a closed set of inflected 'dummy' verbs categorizes the open set of uninflected verbs] (in various parts of the world)

B. Grammatical Devices
   (1) By means of **verb affixes** [a closed of verbal affixes categorizes verbs in verb classes and thereby mirroring the nominal categorization technique of 'noun classes'] (in several languages of the world)
   (2) By means of **conjugation systems** [each verb is inflected in a verbal paradigm for a number of parameters such as person of core arguments, TAM etc; there is a small number of conjugation paradigms] (e.g. Romance languages)

For some of the above types, the *classification of linguistic forms* also relates to a *classification of experience* (Lucy 2000). A potential for a classification of referring events denoted by verbs is attested for types A(2), A(3) and B(1). For A(2), Gerner (2009) shows that classifiable verbs match the concept of TOUCH-events, i.e. of physical events in which two objects enter into touch contact either once (e.g. 'beat') or iteratively (e.g. 'hammer'). As for A(3) and B(1), classificatory verbs and affixes are often associated with a number of generic activity concepts (*do*, *change*, *express* etc).

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David Gil (Max Planck Institute for Evoluntionary Anthropology)
Obligatory vs. optional Tense-Aspect-Mood marking: a cross-linguistic study

This paper presents an ongoing cross-linguistic study of the grammatical marking of Tense, Aspect and Mood (TAM), assigning languages one of the following two feature values:

(1) (a) Obligatory TAM marking, if all basic declarative affirmative main clauses contain a grammatical expression of at least one of the three TAM categories;
(b) Optional TAM marking, if there are some basic declarative affirmative main clauses with no grammatical expression of any TAM categories.

Obligatory TAM marking languages include English, Mursi, Kayardild, Japanese and Pirahã, while optional TAM languages include Cantonese, Ju|'hoan, Jarawa, Lavukaleve and Lakhota. At the time of writing, almost 500 languages had been examined.

The distribution of obligatory and optional TAM marking displays striking continent-scale geographical patterning. One large area of near-exclusive obligatory TAM marking covers North and East Africa, Europe, and West, Central and South Asia, while another such area comprises all of Australia. Conversely, a single large contiguous area of near-exclusive optional TAM marking spans eastern China, mainland Southeast Asia, most of the Indonesian archipelago, and western New Guinea. Elsewhere, both language types occur interspersed, with no large-scale geographical patterns evident.

The presence of obligatory TAM marking correlates with another general and logically-independent morphosyntactic property, namely the grammatical encoding of thematic-role assignment and the relationship of government between a verb and its full nominal arguments. This correlation is supported empirically by three separate studies, demonstrating specific correlations between the presence of obligatory TAM marking and (a) the presence of case marking, as per Dryer (2005); (b) the presence of dependent marking, as per Nichols and Bickel (2005); and (c) the unavailability of associational interpretations (interpretations underspecified with respect to thematic roles), in accordance with the cross-linguistic experimental study described in Gil (2008).

Given the presence of large-scale areal patterns governing the distribution of the above features, the observed correlations may in principle be attributable to universal grammar, or alternatively to geography and parallel patterns of contact and diffusion. These possibilities may be teased apart through the pairwise examination of geographically and genealogically proximate languages differing with respect to the distribution of TAM marking. For example, while Twi has obligatory TAM marking, in Yoruba TAM marking is optional — and as shown in Gil (2008), associational interpretations are much more readily available in Yoruba than in Twi. Several such pairwise examinations suggest that although geography may also play a role, the correlation between TAM marking and the encoding of thematic-role assignment does indeed reflect a real property of the architecture of grammar.

Why should this be so? In conclusion, it is suggested that obligatory TAM marking and the grammatical encoding of thematic-role assignment are both consequences of a single deeper property, namely the presence of *predication*, defined as an emergent property entailing the clustering of grammatical features pertaining, among others, to TAM marking and thematic-role assignment. Specifically, whereas languages with strongly grammaticalized predication exhibit obligatory TAM marking and grammatical encoding of thematic-role assignment, languages with weak or no grammaticalization of predication are characterized by optional TAM marking and little or no grammatical encoding of thematic-role assignment.

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Claude Hagège (Collège de France)

Resultative verbal compounds as an areal phenomenon in SE Asia

A Resultative Verbal Compound (RVC) is a succession of two verbs, one of which, V2, expresses a result of the state of affairs expressed by V1. This construction is widespread in SE Asian languages (cf. Bisang 1992). Thus, in (Mandarin) Chinese, if *zhǎo* "to seek" is followed by *dào* "to reach", one gets a verbal compound meaning "to find", as in ex. (1). Chinese RVCs are also recognizable by the fact when a negation is inserted between V1 and V2, the resulting meaning is negative potential, as illustrated by (2a), which says that, although the person in question jumps, s/he cannot go over the place in which s/he is located. There is an interesting difference, unapparent in English, between this structure and the one which uses a negated verb "can", illustrated by (2b): (2a) says that the action has begun, but fails to reach the intended result, whereas (2b) says that the action cannot be carried out at all. The positive potential is expressed by inserting *de* between the two verbs, but the structure one gets is ambiguous, since *de* also introduces adverbial complements in Chinese. Therefore, *kuài*, which (as usual in Chinese) means "be fast" when a verb and "fast" when an adverb, functions as a potential resultative verb in (3a), and as an adverbial complement in (3b), whose negative counterpart is (4), where we find *de* + *bù*, as opposed to negative potential (2a), where *de* cannot be inserted. We also notice that V2 can be represented either by a monosyllabic verb, as in (1) (cf., as well, (5) and (6)), or a polysyllabic verb, as in (2). Furthermore, Chinese RVCs can be transitive, as in (1), intransitive as in (2) and (3a), and they can also refer to an affected participant, as in (5), whose English equivalent encodes the result as a participle, according to a satellite-framed strategy also used for motion events, as in *he swam across the river*. It should be stressed, in addition, that the meaning of an RVC cannot always be inferred from the addition of those of V1 and V2: (6) shows that RVCs may also be idiomatic.

Like Chinese, Thai has V1 + V2 constructions in which V2 refers to the result of the action carried out by V1, and these constructions can be negated by inserting a negation between V1 and V2, as shown by (7) and (8), whose structures and meanings are close to those of (1) and (2) respectively. The same is true of Khmer, where "think" + "see" yields "find the solution" (ex. (9)), and similarly, "walk" + NEG + "reach" means "cannot walk to" (ex. (10)). Vietnamese, on the other hand, has a V2 *ñược* which, like Chinese *dào*, Thai *phõp* and Khmer *dâl*, refers to the successful result of an action ((11)), and even an interesting V2 *phải* which implies that this result is undesired ((12)); but unlike these languages, Vietnamese can put the negation either before or after V1, and the meaning, then, as seen in (13), is not potential. Finally, Hmong uses as V2 such verbs as *puv* "fill" in (14), but it can also insert between the two verbs, as in (15), a nominal complement which functions as object of a transitive V1 (*lom*) and subject of V2 (*tuag*), a structure not attested in the other languages.

This feature of Hmong suggests that the V1-V2 structures in (14) and (15) occupy an intermediate position between serial verbs and RVCs. The V1-V2 structures in examples (1) - (13), on the other hand, may be treated as compounds, although Chinese linguists treat them, in this language, as *dòngbǔ jiégòu*, namely "verbal complement construction", implying that they view them as a syntactic rather than a morphological phenomenon. Admittedly, it is not always easy to draw a sharp dividing line between those, among the resultativeV1-V2 constructions, which should rather be treated as compounds and those which are syntactic phenomena (cf. Cartier 1972: 149, Xu 2008: 9). However, some facts point to the morphological treatment. First, RVCs are often so lexicalized that their meaning cannot be directly deduced from an addition of those of their parts, as in *kàn-chū* (look-go.out=) "realize", or they are, even, idiomatic, as in (6). Second, speakers cannot always form RVCs freely: in all these languages V2's belong to a closed list. The richest list is found in Chinese: 270 according to Xu 2008.

Given this high number and the important and millenary-long influence of Chinese on many other South-East Asian languages (among which those selected here), which also exhibit

RVCs and are not directly related to Chinese genetically, we can hypothesize that we have to do here with an areal phenomenon.

Examples

Chinese (Bisang 1992: 101-102; Xu 208: 9, 139, 175)

(1) *wǒ **zhǎo-dào** le nèi běn shū*
(1SG seek-reach PST that CL book)
"I found that book".

(2) a. *tā **tiào-bu-guòqù***
(3SG jump NEG go.over)
"he cannot jump over (this place)".
b. *tā bù néng tiào-guòqù*
(3SG NEG can jump- go.over)
"he cannot jump over (this place)".

(3) *tā **zǒu de kuài***
(3SG walk *de* fast)
a. "he can walk fast".
b. "he walks fast".

(4) *tā zǒu de bú kuài*
(3SG walk *de* NEG fast)
"he does not walk fast".

(5) *tā **xué-lèi** le*
(3SG study-tired CS)
"he has studied himself tired".

(6) *tā **kàn-pò** le*
(3SG look-perforate CS)
"the scales have fallen from his eyes".

Thai

(7) *kháo **há-phõp** _dek sám khon*
(3SG seek- come.across child three CL)
"he found three children".

(8) *phóm **nøk-mày-_Dk** nángsXX lèm ni*
(1SG remember-NEG-go.out book CL this)
"I cannot remember this book".

Khmer (Khin Sok 1999 : 310)

(9) *khñom **kXt-khøñ***
(1SG think-see)
"I have found the solution".

(10) *sa:raœn **daœ-mXn-dâl** sa:la*
(Saraœn walk NEG reach school)
"Saraœn cannot walk to the school »".

Vietnamese (Nguyên Đinh Hoa 1972: 399-401, Vư 1983: 101)

(11) *nó **tìm-ñược** vang ở dưới sông*
(he search get gold be.at below river)
"he found gold at the bottom of the river".

(12) ***ăn-phải** trứng ung*
(eat undergo egg addle)
"by mischance, (he) ate an addle egg".

(13) *anh.ấy [không học thành / **học không thành**] bác- sĩ*
(he [NEG study become/study NEG become] doctor
"he [didn't study/studied but did not take his degrees in] medicine".

Hmong (Bisang 1992 : 229)

(14) *ib co kooj **ya-puv** nkaus tsev*
(NUM PLgrasshopper fly fill whole house)
"a host of grasshoppers flew into the whole house".

(15) *txiv.ntcawm muab tshuaj lom Los Xab tuag*
(uncle take medicine poison Los Xab die)
"the uncle poisoned Lo Sa".

Abbreviations: CL classifier, CS change of situation, NEG negation, NUM numeral, PL plural, PST past, SG singular.

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Gwendolyn Hyslop (Research Centre for Linguistic Typology, La Trobe University)
On 'knowledge' and 'evidentiality' in Kurtöp, a Tibeto-Burman language of Bhutan

A common definition of evidentiality is 'grammaticalized information source' (Aikhenvald 2004:14). Recent research points to other, related categories (e.g. the 'mirative' DeLancey 1997) and some scholars suggest a broadened notion of evidentiality (e.g. Brugman and Macaulay 2010). In this paper I present data from Kurtöp, a Tibeto-Burman language of Bhutan, as support in favor of a wider notion of evidentiality.

Based on primary fieldwork in Bhutan, I demonstrate how Kurtöp finite clauses are obligatorily encoded for a range of evidential-like categories. For example, Kurtöp makes a five-way contrast in perfective aspect. The form *-shang* is used when the speaker has first-hand knowledge of the event while *-pala* is used when the speaker expects someone else to have first-hand knowledge of the event. The form *-para* is used when the speaker presumes that a given event took place while *-mu* codes indirect evidence of an event. These four forms contrast paradigmatically with *-na*, which marks the mirative (recent and surprising knowledge of an event, c.f. DeLancey 1997) perfective.

In imperfective aspect, a Kurtöp verb contrasts new information with old, intrinsic knowledge. For example, upon discovering that water from a tap is cold, a Kurtöp speaker would utter *khwe khik-**ta***, but to relay that information to someone else would say *khwe khik-**taki***. The options available to speakers in future tense are manifest as epistemic modality. The only true future verbal suffix, *-male*, is used primarily by first person, as it necessarily encodes speaker certainty of the event. A bare verb contrasts with *-male*, encoding future tense with speaker uncertainty.

Kurtöp has several copular roots: affirmative equational (*wen*), affirmative existential (*nak-*), negative equational (*min*) and negative existential (*mut-*) which are also obligatorily marked for evidentiality. The affirmative and negative equational copulas indicate direct evidence in their bare form, or may be altered to encode direct evidence, mirativity, intrinsic knowledge, presumption, or other values.

Finally, Kurtöp also has particles which encode information about speakers' source of knowledge or expectations of knowledge. Information questions must have a particle at the end of the clause; *yo* is used when the speaker expects the hearer to know the answer while *shu* is used when the speaker does not expect the hearer to have the answer. A hearsay particle *-ri* may be suffixed to any phrase to mark that the speaker heard the information s/he is relaying.

The Kurtöp data evidence a rich system that encodes not only source of information, but also speaker's expectations of other's knowledge, surprise, and certainty. There is no evidence in Kurtöp that 'source' of information is treated in any sense differently from the other evidential- like categories found throughout the verbal system. Rather, source of information is coded alongside a wide variety of categories, providing information *about* the knowledge. The Kurtöp data, I argue, suggest that the typological notion of evidentiality should be widened to subsume other categories that allow speakers to express information *about* knowledge, not only *source* of knowledge.

Gwendolyn Hyslop (Research Centre for Linguistic Typology, La Trobe University)
Karma Tshering (Research Centre for Linguistic Typology, La Trobe University)
Typological profile of the phonology of the Tibeto-Burman languages of Bhutan

Recent fieldwork in Bhutan is producing descriptions of several previously described Tibeto-Burman languages. For example, full grammars have been completed for three languages (van Driem 2008 for Dzongkha; Andvik 2010 for Tshangla; Hyslop to appear for Kurtöp). A few articles, such as van Driem (2008) and Hyslop & Tshering (2010) have also been devoted to various aspects of Bhutanese languages. In this talk we discuss the present the phonemic systems of nine Tibeto-Burman languages, identifying a typological profile that is characteristic of Bhutanese languages.

Eighteen Tibeto-Burman languages have been identified in Bhutan to date (van Driem 1998). Of these, six belong to the Central Bodish sub-family (e.g. Dzongkha), eight belong to the East Bodish (e.g. Dakpa) sub-family and four remain unclassified within Tibeto-Burman (e.g. Tshangla, Lepcha). This paper presents the phonologiese of Dzongkha, Tsha-Sili, Kurtöp, Bumthap, Kengkha, Dakpa, 'Olekha, Lepcha, and Tshangla.

Dzongkha (van Driem 1998) contrasts voiced, voiceless and aspirated stops at five places of articulation, and has voiced and voiceless fricatives at two places of articulation. In terms of sonorant consonants, Dzongkha has one lateral, one rhotic, both of which may be voiced, and four nasals. There are seven vowels, two registers of tone following all initial consonants, and level, glottalized tone versus falling tone. In addition, vowels may be long or short. In terms of syllable structure, Dzongkha has only simple onsets and mainly open syllables, though possible codas are *–m* and *–p*.

The East Bodish languages (van Driem 1998, (author) 2008, (author) 2010, field notes) have phonological systems similar to that of Dzongkha, except for the voiceless sonorants, which are found only in Dzongkha. Dakpa and 'Olekha have a relatively rich set of complex onsets while Kurtöp, Bumthap and Khengkha have fewer. The vowel systems of the East Bodish languages vary dramatically, though the tonal systems are the same: high/low register tone constrasts following sonorant consonants only. Vowels may also be short or long. Tasha-Sili, considered a dialect of Dzongkha, has a phonological system characteristic of East Bodish.

Lepcha (Plaiser 2007) and Tshangla (Andvik 2003) remain unaffiliated Tibeto-Burman languages. However, both languages have phonological systems similar to the East Bodish languages. Lepcha, Tshangla, and Kurtöp/Bumthap/Khengkha share the same consonant phonemes, with the exception of Lepcha, which has a labiodental fricative. Lepcha also differs from these languages in having eight vowels, where Tshangla and Kurtöp/Bumthap/Khengkha have five each. Lepcha and Tshangla are distinct from the East Bodish languages and Dzongkha in no having tone or constreastive vowel length.

While it is expected that languages in the same family would have similar phonological systems, we argue the striking similarities found amongst the languages of Bhutan is due to convergence. With Dzongkha being the national language, the other languages have been under pressure, so to speak, to conform to the phonology of Dzongkha. We support this hypothesis by including a summary of the phonologies of Tibeto-Burman languages of neighboring North East India (author 2008), which are strikingly different from the Dzongkha prototype.

Giorgio Iemmolo (University of Pavia, Italy)
Towards a typological study of Differential Object Marking

This paper is a cross-linguistic study of Differential Object Marking (DOM) and Differential Object Agreement (DOA), i.e. the phenomenon whereby only some direct objects (DOs) are case marked or trigger agreement depending on their semantic and pragmatic properties (e.g. Bossong 1985, 1998; Comrie 1979, Croft 1988, among others). Properties influencing DOM include animacy, definiteness, specificity and topicality. Within the functional-typological literature, two main approaches to DOM can be identified, the "markedness" or "discriminatory" approach and the "indexing approach". In the markedness approach, advocated for example in Comrie (1979) and Croft (1988), DOM reflects the marked status of highly definite and animate direct objects (in the typological sense of the notion of markedness, as defined e.g. in Croft 2003). Proponents of the indexing approach have however argued that this analysis is in contrast with the notion of transitivity as put forward by Hopper and Thompson (1980), in that the high degree of affectedness (and consequently the high clause transitivity) of the direct objects directly correlates with a high degree of individuation (Næss 2004, 2007). DOM has also been studied within generatively oriented theories of grammar, such as Optimality Theory and Lexical Functional Grammar. For example, Aissen (2003), de Swart (2007) and Nikolaeva (2001) tried to provide an account of DOM from OT-syntax and LFG approaches, adopting both a discriminatory and an indexing perspective.

The aim of this paper is to discuss and evaluate current models of DOM and DOA based on a cross-linguistic perspective. Drawing on data from a sample of 110 languages with either DOM or DOA or both, we compare the phenomena against previous approaches, and present some new results that emerged from our study. In particular, it will be argued that:

1. the distribution of DOM and DOA in many languages of the sample is better captured when information structure parameters, such as topicality, are taken into account: the frequent connection between DOM/DOA and semantic factors such as animacy and/or definiteness is indeed a result of the frequent connection between these features and information structure salience;

2. the relevance of information structure parameters becomes even more stringent when the diachrony of DOM/DOA are taken into account: in fact, in many cases the object marker had an "as for" meaning, as attested for instance in Tariana (Arawakan), Armenian, Italian, Persian (Indo-European), and Tubu (Nilo-Saharan);

3. the role of affectedness in determining DOM/DOA is irrelevant both from a synchronic and from a diachronic point of view. It will be shown that the only cases in which affectedness plays a role display a formal opposition between two overt morphemes, such as in Finnish. On the contrary, when the alternation in direct object encoding is between zero and overt marking, there seems to be no influence of affectedness: in this case, DOM is regulated by semantic and information structure parameters.

Examples:

(1) Hebrew (Afro-asiatic, Semitic)

(a) *David* *natan* *matana* *lə.rina*
David give:PST.3SG present to.Rina
"David gave Rina a present"

(b) *David* *natan* *'et matana* *lə.rina*
David give:PST.3SG ACCpresent to.Rina
"David gave the present to Rina" (Hopper and Thompson 1980: 256)

(2) Santali (Austro-asiatic, Munda)
   (a) idi-me-a-e
   take-2SG.OBJ-FIN-3SG.SUBJ
   "He will take you along with him"
   (b) ere-ker-ie-a-kin
   deceive-PST1:TR-1PL.OBJ-FIN-3DU.SUBJ
   "They (two) deceived us" (Neukom 2000)

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Kazuhiro Imanishi (University of Tokyo)

On the ergative behavior of verbal compounds

'Verbal compound' is defined as the combination of a verbal element (such as verb, gerund, etc.) and another element (such as noun, adverb, etc.). This includes incorporation, pseudo-incorporation, and N-V compounds such as *fox-hunting*, *fast-walking*, etc. In verbal compounds, agent, recipient, and beneficiary nouns are not used (Gertz (1998) etc.), e.g. **doctor-recommending*, **child-giving*, etc. Comrie (1978) mentions that this is a representation of ergativity.

In the present paper, I claim the following: (a) the exclusion of agent, recipient, beneficiary should not be treated as an example of ergativity; (b) the restriction is due the (typical) high referentiality of these semantic roles.

(a) On ergativity: Keenan (1984) and DuBois (1987) suggest two different motivations of ergativity: semantic one and pragmatic one. I claim that Keenan's semantic motivation is represented in the ergativity in the typological sense (cf. Dixon (1994)), and DuBois's pragmatic motivation triggers the exclusion of agent, recipient, and beneficiary in verbal compounds. Thus, the seemingly 'ergative' behavior of verbal compounds should be distinguished from the ergativity in the typological sense.

(b) Referentiality: incorporation, pseudo-incorporation, and N-V compounds are basically word-formation processes which involve a verb. The verb is a lexical item which must not include any referential element because the verb does not have extension and may not be referential. This is the reason why the noun in incorporation and N-V compounds is non-referential. Agent, recipient, and beneficiary are basically high in animacy and referential (DuBois (1987)); hence they cannot be included in a verbal compound.

There are at least two exceptions in which referential nouns can be combined with a verbal element: pseudo incorporation in the VP topicalization in German, and the compound of noun and nominalized verb in Japanese.

(1) ***Den Zauberer gesehen*** *habe ich noch nie.* "I have never seen the wizard."
the.ACC wizard seen have I not yet

(2) *amerika-gaeri* (America-returning) "returning to the U.S."

The pseudo-incorporation in German as in (1) is allowed because this is not a word-formation process, but the combination is meant to use only once in certain circumstance. The compound in Japanese is allowed because Japanese nominalized verbs are more similar to nouns than to verbs (e.g. they cannot take arguments); the compounds such as *amerika-gaeri* "America-returning" in (2) are made by a process analogous to that of nouns such as *amerika-daitooryoo* "America-president".

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Reciprocal-antipassive polysemy: convergence from unrelated languages

The antipassive, which raised considerable interest in the syntactic description of ergative languages (Dixon 1994), is often defined as a derived detransitivized construction the patient argument of which is either suppressed or realized as an oblique (Polinsky 2005). The antipassive is traditionally claimed to correlate with ergativity, but recent studies extend the analysis of antipassive constructions to accusative languages (Say 2005, Creissels 2006, among others).

To derive the antipassive construction, certain ergative languages, in particular Australian (ex. Anguthimri) and Palaeosiberian (Chukchi) ones, use an antipassive marker diachronically related to the reciprocal function. A typological investigation in the development of the reciprocal markers shows that a similar morphological correlation also exists in accusative languages, in particular in Bantu languages. The fact that the same polysemy is observed in genetically unrelated languages provides clear evidence that the morphological coincidence is by no means homophonous in nature. In addition to Australian and Bantu languages, Austronesian and Slavonic can be mentioned among the language families in which the reciprocal-antipassive polysemy is attested.

Languages with one reflexive-reciprocal marker only (*i.e.* Slavonic ones) tend to use it to convey the antipassive meaning. It seems that the use of reflexive as a means to express the antipassive meaning requires that the reflexive be already used to convey a reciprocal meaning. Interestingly, crosslinguistic studies reveal that in languages with distinct reflexive and reciprocal markers, *i.e.* Oceanic, some Bantu and Australian languages, there is a strong tendency to use the latter to derive the antipassive meaning. So far, no example has been found of a language displaying reflexive-reciprocal contrast and using the reflexive marker to derive the antipassive meaning.

This paper, that argues in favour of the recognition of antipassives in accusative languages, aims at answering the following question: what, in the respective properties of reflexives and reciprocals, might explain this asymmetry?

Building on examples taken from the aforementioned language families and beyond, it will be argued that while reflexives and reciprocals share some syntactic and semantic characteristics, it is reciprocals that are more compliant with the antipassive interpretation. For instance, unlike reflexives, canonical reciprocals require a plural subject. This constraint, when violated, opens a path to extended meanings, such as antipassive. In the following example from Tswana (Creissels & Voisin 2008), the antipassive reading is preferred to the reciprocal one on pragmatic grounds:

1.	Lepodisi	Le	batlana	le	legodu
	5.policeman	SM3:5	look for.RECIPR	with	5.thief
	'The policeman is looking for the thief'				
	'The policeman and the thief are looking for each other'				

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Sook-kyung Lee (University of New Mexico)
Polysemy of the similative plural construction: a crosslinguistic perspective

This paper illustrates how the similative plural construction also functions to express pejorative meanings and a pragmatic hedge across languages. It argues that such polysemy can be explained in terms of the construal of similative plurality and how it is extended through the process of subjectification in grammaticalization.

In some languages, there is a nominal plural construction meaning 'X and similar things.' This construction has been called the "similative plural construction" (cf. Daniel 2005; Daniel and Moravcsik 2005; Moravcsik 2003; also discussed under the term "approximative" in Corbett 2003). Interestingly, there are languages that use this construction to express pejorative meanings (both contempt toward other people and a humble attitude toward oneself) and pragmatic hedging. Examples 1 and 2 below illustrate (a) similative; (b) pejorative ((b-i) contempt and (b-ii) humbleness); and (c) hedging functions of the similative plural constriction in Japanese and Korean.

In this paper, based on the semantic criteria used for the analysis of the associative plural construction in Moravcsik (2003), we first identify similative plurality as a kind of plurality in which heterogeneous entities are grouped based on their similarity and in which the referents are ordered according to their saliency, with only the focal referent being denominated. Moreover, due to its nature, the similative plural construction leaves non-focal referents unspecified, resulting in a construal of vagueness.

Secondly, we claim that the sense of vagueness expressed by similative plurality plays a crucial role in pejorative and hedging interpretations. According to Suzuki 1994:267-271), a lack of specification suggests a lack of the speaker's willingness to commit to X, and this suggestion of the speaker's non-committal attitude toward X is interpreted as the speaker's negative attitude toward X (i.e., contempt and humbleness). Moreover, the vagueness expressed for a set of referents may, in turn, extend its function to express speaker vagueness about the force of the proposition as a whole (i.e., hedging).

Thirdly, we suggest that these different meanings of the similative plural construction can be explained in terms of subjectification, in which the meaning of a construction shifts from more concrete, lexical, and objective to more abstract, pragmatic, interpersonal, and speaker-oriented (Traugott 1995).

Finally, we show that the polysemy of the similative plural construction found in Japanese and Korean can be extended to unrelated languages. In particular, we consider the English discourse marker *X and stuff like that* to be an example of polysemy between similative plurality and hedging, and echo reduplication in Kannada as an example of polysemy between similative plurality (e.g. *hili~**gili*** 'tigers and such' (Sridhar 1991:268)) and the pejorative for showing contempt (e.g. *gawḍa~**giwḍage** naanu hedaroolla*, meaning 'I am not afraid of the *gawḍa* (who is like any other ordinary person)' (Keane 2001:58)).

Examples:

(1) Japanese:

a.	*has-san*	*kuma-san*	*goinkyo-san*	***nado***	*ga*	*toojoo-suru.*
	Has-san	Kuma-san	Goinkyo-san	**SMP**	NOM	appearance-do

'Has-san, Kuma-san, Goinkyo-san, etc. appear (in the story).' (Teramura 1991:185)

b-i. *yamasaki-henshuuchoo* ***nado*** *ni* *sonna* *koto* *wo* *s-arete* *tamaru* *ka.*
Yamasaki-chief editor **SMP** DAT such thing ACC do-PASS can't.stand EMPH
'I could not stand it if a person like Chief-editor Yamasaki did such a thing.' (Teramura 1991:186)

b-ii. *watashi* ***nado*** *ni* *wa* *totemo* *deki-nai.*
I **SMP** DAT TOP absolutely can.do-NEG
'There is no way a person like me can do it.' (Teramura 1991:186)

c. *go-isshoni shokuji* ***nado*** *ikaga* *desu* *ka.*
HON-together meal **SMP** how.about COP.POL.NONPAST Q
'Would you like to go for a meal together, or something like that?' (Suzuki 1994:271)

(2) Korean:

a. *sakwa* *pay* *kyul* ***kat-un*** ***kek-ul*** *sa-ess-ta.*
apple pear tangerine **like-REL** **thing**-ACC buy-PAST-DECL
'(I) bought apple, pear, tangerine and things like that.'

b-i. *ku-nun* *ne* ***kat-un*** ***ke-n*** *pelsse* *ic-ess-ta.*
he-TOP you **like-REL** **thing**-TOP already forget-PAST-DECL
'He already forgot a person like you.'

b-ii. *ce* ***kat-un*** ***ke-n*** *kamhi* *kkwum-to*
I:HUM **like-REL** **thing**-TOP how.dare dream-also
mos *kkwu-nun* *il-ipnita.*
unable dream-REL event-COP.POL.NONPAST
'A person like me cannot even dream such a thing.'

c. *wuli yehang* ***kat-un*** ***ke*** *ka-ca.*
we trip **like-REL** **thing** go-HORT
'Let"s go on a trip (or something like that).'

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Laura Kalin (University of California, Los Angeles)
Hixkaryana and the typology of OVS word order

The extreme rarity of Object Verb Subject (OVS) word order is a persistent typological puzzle: if there really are languages with basic OVS word order, then OVS must be syntactically derivable; however, there must also be something 'deviant' about OVS word order that makes it so scarce. Only a dozen or so languages are attested to have OVS word order (Dryer, 2008; Derbyshire and Pullum, 1981). This paper focuses on one of the best-documented OVS languages – Hixkaryana – to argue that the 'deviation' in OVS languages is a marked ordering of inflectional projections, namely, Agr_O P above Agr_S P. Data from other OVS languages support this generalization.

Hixkaryana is a Carib language spoken in the Brazilian Amazon by around 600 people (Lewis, 2009). Hixkaryana has OVS word order, illustrated in (1):

(1) kana y-an1m-no biryekomo.
Fish 3SUBJ.3OBJ-catch-IMMEDIATEPAST boy
'The boy caught a fish.' (Derbyshire and Pullum, 1981, pp. 194)

That OVS word order in Hixkaryana is basic/unmarked is evidenced by the fact that O, V, and S form a single intonational phrase and, when the arguments are overt, OVS is preferred (Derbyshire, 1985). Verbs carry rich inflectional morphology, schematized in (2-a) and exemplified in (2-b):

(2) a. Agreement-V-Collectivity-Aspect.Tense
b. y- **ama** -tx -own1
3SUBJ.3OBJ **fell** Collective COMPLETIVE.DISTANTPAST
'They felled it.' (e.g., a tree) (Derbyshire, 1985, pp. 68)

Prefixal person agreement on the verb is a portmanteau morpheme encoding both subject and object agreement. Similarly, the outermost suffix encodes both tense and aspect. To account for the order and position of affixes, this paper proposes the following base order of inflectional projections:

(3) AGR_O P >> AGR_S P >> TNSP >> ASPP >> COLLP >> vP >> VP

The V head raises through v, Coll, and Asp, landing in Tns and picking up these inflectional heads as suffixes. The Agr heads do not syntactically attach to V, but rather phonologically attach at a later stage in the derivation; hence, Agr is a prefix. The fact that subject and object agreement are encoded in a single affix is attributed to head movement of AGR_S to AGR_O. AGR_O P is above AGR_S P to account for the fact that the object (whose landing site is spec of AGR_O P) does not intervene between TNS (the landing site of the V) and the portmanteau agreement prefix, which is housed in the higher of the AGR projections. (The subject moves through spec of AGR_S P and then into the A′ domain; thus, the subject is not a potential intervener in the AGR projections.)

The proposed ordering of AGR_O P above AGR_S P is supported by agreement morphology in other OVS languages. Preliminary findings indicate that if an OVS language has both subject and object agreement, AGR_O is structurally higher than AGR_S. This is manifested in the OVS languages Päri (Nilo-Saharan), Arekuna/Taulipang (Carib), and Makuchi (Carib) by object agreement being a prefix and subject agreement being a suffix (Andersen, 1988; Derbyshire, 1985). These languages differ from Hixkaryana in that the V head raises one head higher, into AGR_S, picking up subject agreement as a suffix while object agreement

phonologically attaches as a prefix at a later stage in the derivation. This generalization needs to be further empirically tested, but opens up promising avenues of new research that have important typological and theoretical repercussions for the field.

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Phonological phrasing as an independent typological parameter

Helped by the widespread assumption that phonological phrasing is essentially determined by surface-syntactic constituency (as advocated by influential prosodic theorists such as Selkirk1984, 1995/1996 and Nespor & Vogel 1986/2007), phonological phrasing as such has not received much typological attention. This is regrettable because this basic assumption does not always stand up to empirical scrutiny: looking at the most natural phrasing in spontaneous, casual speech (as distinct from planned, careful speech or speech reproducing remembered text as often studied in phrasing experiments), there are languages where phonological phrasing at the level of the phonological word and perhaps phrase systematically deviates from surface-morphosyntactic constituent structure (on any plausible morphosyntactic analysis), and instead follows rhythmic principles. Careful prosodic analysis of individual languages is required to establish such mismatching; this precludes a wide- ranging sample-based study, since the requisite prosodic detail is often missing even from substantial descriptive grammars. There is sufficient specialist work available, however, to confidently conclude that the families which show massive misalignment of phonological and morphosyntactic constituency, especially at the word level, include Bantu, Penutian, Wakashan, Tibeto-Burman, Uralic, Indo-Aryan, and Germanic.

For example, in Teke-Kukuya (Bantu, Niger-Congo; Hyman 1987), prefixes of dependent nouns in associative constructions are phonologically phrased not with the stems of which they are morphological co-constituents, but with stems which happen to precede them, across morphosyntactic boundaries:

morphosyntactic constituency:	[Prefix-Stem [Prefix-Prefix-Stem]]
phonological phrasing:	$\text{Prefix}_{\text{extraprosodic}}$ (Stem Prefix Prefix_{p}W) (Stem_{p}W)
	kI-(IIlI kii-mU_{p}W)-(kaay$_{p}$W)
	CLASS-tear ASSOC-CLASS-woman
	'tear of the woman'

The unit of a phonological word in Teke-Kukuya can be motivated through (i) tonal mapping patterns (lexical tone and postlexical tone, no spreading onto stem) and (ii) segmental distributions (consonant and vowel occurrences only definable over the domain (Stem Prefix); processes such as gemination). Similarly detailed evidence for mismatching can be adduced for Tsimshian or Kwak'wala (with Penutian and Wakashan on these grounds subsumed under the "cyclic" subtype in the typological scheme of Milewski 1950); for Limbu, Kyirong, Galo (Tibeto-Burman; Hall & Hildebrandt 2008, Post 2009, Hildebrandt 2010); for varieties of Saami (Uralic; Bye 2010); for Santali (Indo-Aryan; Neukom 2001); and for Dutch, German, English and other Germanic languages (Lahiri et al. 1990, Wheeldon & Lahiri 1997, 2002, Lahiri & Plank 2010).

The purpose of this paper is, first, to present the crosslinguistic evidence for the mismatching of phonological and morphosyntactic phrasing. Second, on this basis generalisations will be suggested as to where and why to expect such mismatching. For example, it seems that it is PREposed function words and/or PREfixes which can be left- detached in phonological phrasing, but not the other way round, with POSTposed function words and/or SUFfixes phonologically right-detached. Also, the current evidence suggests that a trochaic/dactylic rhythmic preference in phonological phrasing – (Strong Weak), (Strong Weak Weak) – is universal, helping to account for the general suffixing preference via a general encliticisation preference and for other prefix-suffix asymmetries (e.g., in syllabification or hiatus resolution).

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Lability in languages (almost) without lability: labile verbs in South American languages

In South America, according to Nichols et al. (2004), labile (ambitransitive) verbs are infrequent. In this respect it is opposed, for instance, to Europe and Caucasus. However, language descriptions show that many languages of this region possess at least a small class of labile verbs. Of course, these small classes of labile verbs might in principle be merely accidental. However, I claim that, despite its low productiveness, the semantics of labile verbs in these languages is not accidental. The aim of the talk is to examine regularities in semantics of labile verbs in South American languages.[1]

The hypothesis I put forward is that South American languages often have labile verbs with an animate patient / theme. For instance, in Yurakaré (isolate), according to van Gijk (2006) *mala-* 'go / take' is among the few labile verbs:

(1) a. mala-m
go.SG-2SG.S
'You go.'

b. ti-mala-m
1SG-go.SG-2SG.S
'You take me'.

In Yagua (Peba-Yaguan, Payne & Payne 1990) one of few labile verbs is *rúpąą* 'miss / escape':

(2) a. Ray-rúpąą-maa tánuvụdajo-vyymu-siy-day.
1SG-escape-PERF jail-INSIDE-ABLAT-DAY
'I have escaped from jail.'

b. Ray-rúpąą-maa-níí
1SG-miss-PERF-3SG
'I have let him escape.'

The same is true for Piraha (Mura, Everett 1986) where the sole labile verb is *xoab* 'die / kill' with an animate patient; Awa Pit (Barbacoan, Curnow 1997), with *alizh kul-* 'annoy / get annoyed', *kaa-* 'bear/ be born', *ishkwa-* 'be startled / scare' among 10 labile verbs; Wai Wai (Carib), with only *ahwo* 'be unhappy / make unhappy' as a labile verb.

Note that the same is not true for European languages and the majority of other languages Nichols and her co-authors examined. Nichols et al. (2004) prove that lability is mainly characteristic for verbs with inanimate patients. For instance, German, a language with many labile verbs, shows almost no labile verbs with an animate patient. In Bulgarian, which have the largest labile class among Slavic languages, only *mrъdvam* 'move / be moved' can have an animate patient (see for details Letuchiy 2006).

However, the tendency to lability of verbs with animate patient is not observed in languages with many labile verbs, such as Warekena (Arawak, Aikhenvald 2002) and Olutec (Mixe-Zoque, Zavala 2000). In these languages the class of labile verbs includes verbs with both animate and inanimate patient.

The data of languages of South America let us draw two conclusions:

1. though statistically lability is characteristic for verbs with inanimate patients, there are languages and even linguistic areals where it characterizes verbs with animate patients;
2. languages of South America do not entirely lack labile verbs.

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[1] The data are from grammars and dictionaries and are collected during the work in CELIA (Paris) in 2007-2008. I am extremely grateful to Francesc Quéixalos and other members of the laboratory for their advise, assistance and fruitful discussions.

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Two competing motivations and the encoding of ditransitives

Through an examination of the coding properties of case or adpositional marking and person-number indexing and on the basis of the relationship between the coding properties of the two objects ("theme" and "recipient") of the ditransitive verb *give* and the properties of the single object of a "standard" monotransitive verb like *catch* and *kill*, Haspelmath (2008) distinguishes three main types of ditransitive construction, as shown in (1). Moreover, he finds that in forming ditransitives, 189 languages in his sample use the indirect-object construction, 84 languages employ the double-object construction, and 66 languages use the secondary-object construction. The purposes of this paper are to give a functional account of the three types of ditransitive construction and to offer an explanation as to why the indirect-object construction is much more common than the other two constructions.

(1) a. **The indirect-object construction**, in which the theme of the ditransitive verb is coded the same as the patient of a monotransitive verb, but differently from the ditransitive recipient.
b. **The double-object construction**, in which both the theme and the recipient of the ditransitive verb are coded the same as the patient of a monotransitive verb.
c. **The secondary-object construction**, in which the recipient of the ditransitive verb is coded the same as the patient of a monotransitive verb, but differently from the ditransitive theme.

On my proposal, the three types of ditransitive construction result from the interaction of the two competing motivations in (2), namely the Event Construal Constraint (ECC) and the Animacy Hierarchy Constraint (AHC). The indirect-object construction arises when the ECC is ranked over the AHC in a specific language (e.g. in Tiipay (Miller 2001) and Vietnamese (Nguyen 1997)). The secondary-object construction results from the AHC's outranking the ECC (e.g. in Belhare (Bickel 2003) and Chamorro (Topping 1973)). As for the double-object construction, it arises from the ECC and AHC's ending with a tie (e.g. in Fongbe (Lefebvre & Brousseau 2002) and Kisi (Childs 1995)).

(2) a. **Event Construal Constraint (ECC)**: From the perspective of event semantics, the theme of the ditransitive verb functions the same as the patient of a monotransitive verb in that both are entities of being acted upon and of typically undergoing a change of state or location, as a result these two arguments should have the same coding in terms of case/adposition marking and person-number indexing.
b. **Animacy Hierarchy Constraint (AHC)**: In forming ditransitives, the typically animate participant (i.e. recipient) outranks the typically inanimate participant (i.e. theme) and gets coded in the same way as does the patient of a monotransitive verb.

With respect to why there are much more languages that use the indirect-object construction, I argue that it is due to the fact that the ECC is directly related to the meaning of the ditransitive construction (which expresses a transferring event) but the AHC is only something secondary to what the ditransitive construction expresses. As a result, there are more languages in which the ECC is ranked over the AHC and there are also much more languages in which the ECC is obeyed than those in which it is violated.

Tianhua Luo (University of Konstanz)

Interrogative verbs in the languages of China

An interrogative verb (IV), according to Hagège (2008), may be defined as "a kind of word which both functions as predicate and questions the semantic content of this predicate".

A sample of 28 languages is examined in Hagège's study (with also a couple of colloquial Mandarin Chinese examples therein), the meanings of a list of IVs (e.g. be who/what, do/say what) and some morpho-syntactic properties of IVs in 28 languages are also presented (see the table below).

Mainly by adopting Hagège's approach, I checked 129 languages in China (Sun *et al.* 2007) and found IVs in 26 languages (among which 20 are of Sino-Tibetan, 3 Altaic, 2 Austronesian, and 1 Creole). Here I compare some of their morphosyntactic properties with the 28 languages sample of Hagège:

	HM/DM/NM	Adpo	Clause order	NP order	alignment
28 lgs	HM 8, DM 12, H/DM 8	Pr 9, Po/S 18	SOV 11, SOV/SVO 4, SVO 6, SVO/VSO 5, VSO 1	GN 16, NG 9, GN/NG 2	ACC 14, ERG 8, split 4, ACT 1, NOM 1
26 lgs	HM 5, DM 4, NM 1, H/DM 3, n/i 13	Pr 2, Po 15, n/i 9	SOV 18, SOV/osv 3, SOV/svo 1, SVO 2, VSO/VOS/svo 2	GN 23, n/i 3	ACC 8, ACT 1, ERG1, n/i 16

H/D/NM head/dependent/no marking, Adpo adposition, n/i no information, Po/S postposition or case suffix

It is clear that the IV languages favor SOV order, postpositions and genitive precedes the head noun. Nevertheless, genitive precedes the head noun seems to be the only sequencing in the 26 languages (though the data of three languages are not available), while this tendency is not so clear in Hagège's sample.

The unity and diversity of IVs in two samples also lies in the interrogative strategies in these languages. Within my 26 languages sample, 13 languages use prefix (among which Muya also use infix, Shixing is also weakly suffixing), 6 use verb-reduplication (usually accompanied by a change of tone on the later verb; this is also found in some Sinitic), 4 use suffixes, while the interrogative strategies of the rest 3 languages are still unclear. The prefixing/suffixing strategies may result from a process of grammaticalization of the interrogative adverbs or particles, while the origin of verb-reduplicating strategy is likely to be developed from the so-called *A-not-A* question. The later hypothesis is tested in the 6 verb-reduplicating languages in my sample (and also in Sinitic, e.g. Shaoxing Wu, Liancheng and Changting Hakka, Zhaoyuan and Changdao Mandarin, Wutai Jin).

A closer look at the correlations between interrogative strategies and morphosyntactic properties may reveal some patterns in genetic (here somehow also areal) distribution of the IV languages as well. For example, the Qiangic languages overwhelmly favors verb prefixing, while the verb-reduplicating strategy is mainly found in the Yi languages.

Hagège, Claude 2008 Towards a typology of interrogative verbs. *Linguistic Typology* 12: 1-44.
Sun, Hongkai; Hu, Zengyi; Huang, Xing (eds.) 2007 *Zhongguode yuyan* [The languages of China]. Beijing: Shangwu Yinshuguan.

Thomas Mayer (University of Konstanz)
Christian Rohrdantz (University of Konstanz)
Consonants in stems: a universal tendency for Similar Place Avoidance

In this paper we explore the phenomenon of Similar Place Avoidance (SPA, an instantiation of the Obligatory Contour Principle), according to which the consonants in CVC sequences of word stems should not share the same place of articulation. For example, (hypothetical) stems like *bit* or *kitab* are in accordance with SPA, stems like *bip* or *kebap* aren't (*kebap* only partially, since the consonant pattern *k–b* shows a difference in place of articulation). This principle was originally claimed to hold for the first two consonants of triliteral stems in Semitic by Greenberg (1950); more recently it was extended to a range of other languages, mostly West African, by Pozdniakov & Segerer (2007).

In order to see whether this constraint is valid even more generally and can aspire to be a universal, we examined data from about 4,500 languages in a large crosslinguistic lexical database (Wichmann et al. 2010), analyzed with methods and techniques taken from the field of Visual Analytics. When analyzed and visualized in this way, successions of consonants having the same place of articulation in CVC sequences are underrepresented, as seen in Figure 1. The place of articulation of the first (row) and second (column) consonant in these sequences is visualized in a matrix whose cell color shows the (dis-)preference of the respective sequence. Whether we group places of articulation as a three-way (L: labial, C: coronal, D: dorsal) or four-way contrast (P: labial, T: dental/alveolar, C: (alveo-)palatal, K: velar), a clear avoidance of identical place successions can be seen at a glance from the coloring along the diagonal.

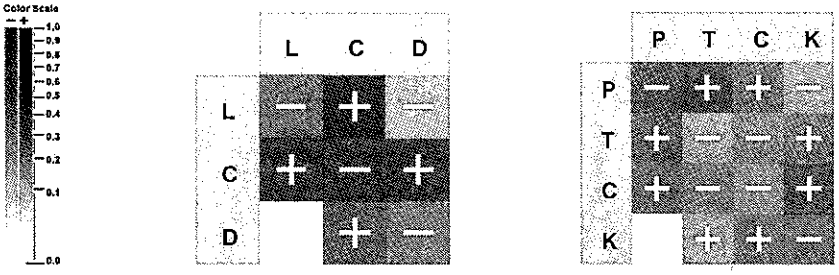

Figure 1: Sequences of places of articulation in all languages. The "+" and "-" signs whether a sequence is observed more ("+", blue) or less ("-", red) frequently than expected. The saturation shows the strength of association.

Most languages in the database conform to the tendency and thus confirm SPA as a universal tendency, as shown in Figure 2 (blue dots). Our results also show that the tendency is stronger for those languages where we have more data (i.e., a higher number of CVC sequences) at our disposal.

Among the points of empirical and technical detail to be addressed in the paper, the question will be raised whether the data also suggest an opposite tendency of an avoidance of places of articulation which are **too** different.

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Wichmann, Søren, André Müller, Viveka Velupillai, Cecil H. Brown, Eric W. Holman, Pamela Brown, Matthias Urban, Sebastian Sauppe, Oleg Belyaev, Zarina Molochieva, Annkathrin

Wett, Dik Bakker, Johann-Mattis List, Dmitry Egorov, Robert Mailhammer, and Helen Geyer. 2010. *The ASJP database (version 12).*

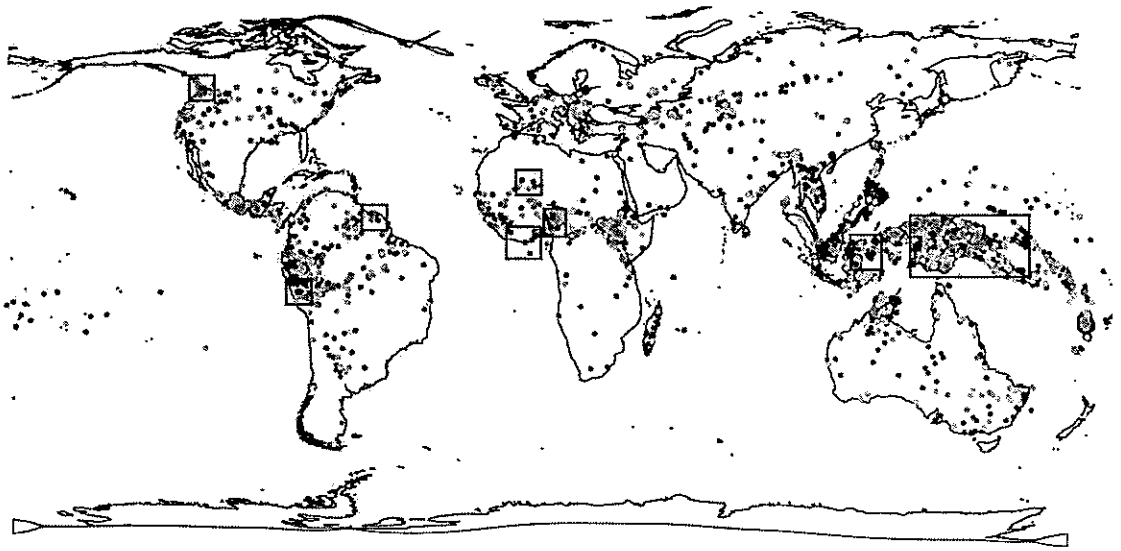

Figure 2: Density equalized distribution of the languages with respect to SPA. The color indicates the number of cells in the main diagonal of the matrix (self-successions of places of articulation) which are negative. Color mapping is from blue (all three cells negative) via green (only two cells negative) and yellow (only one) to red (no cell negative).

Thomas Mayer (University of Konstanz)
Christian Rohrdantz (University of Konstanz)
Bernhard Wälchli (University of Bern / University of Stockholm)

Automatic induction of morphological structures and visual analysis of their complexity

A major desideratum for computational approaches in linguistics is to develop algorithmic procedures for typology. Basic elements of typologically oriented models to language and grammar are universals and hierarchies. In this paper we argue that universals can be viewed procedurally rather than structurally and hence be turned into algorithms which may serve both for the acquisition of linguistic categories from corpora (learning) and for measuring cross-linguistic variation in texts (typology). While structural universals are claims that there is a certain constant structure in all languages, procedural universals are universally applicable algorithms which extract highly different structures when confronted with different input. We will exemplify this approach in the domain of morphological typology based on parallel texts.

Five families of values – (i) degree of synthesis, (i) amount of prefixing and suffixing, (iii) case, (iv) amount of internal inflection, and (v) synthetic vs. analytic negation marking – are extracted automatically from electronic parallel texts (the gospel according to Mark) in a diverse world-wide convenience sample of more than 150 languages. The results are evaluated on the basis of existing traditional typological investigations and it is shown that the automatic approach has the advantage of a much lower degree of data reduction. Instead of classifying languages into discrete types as in Dryer (2005), languages can be located on continuous scales (Map 1).

A simple example of a universal in morphological typology is that any language with non-concatenative morphology (e.g., infixes, ablaut) also has concatenative morphology. Translated into an algorithm this means that we first have to identify stems, prefixes and suffixes and, if there are any such structures, we may proceed to look for internal inflection, stem alternations, etc. First we extract all forms that are likely to have the same lexical meaning on the basis of parallel distribution (a primitive universally applicable lemmatizer). Next we isolate stems defined as shared sequences and affixes as whatever is left over. Once this simple analysis has been performed, we can proceed to look for more complex morphological processes, such as internal inflection.

In order to be able to detect patterns and regularities in the huge amount of data that can be automatically extracted within or across individual languages we avail ourselves of the methodology developed in the field of visual analytics. One of the major challenges of visualizations is to map numerical values from the automatically extracted typological database to suitable pre-attentive visual variables so that an at-a-glance evaluation of linguistically interesting patterns is made possible (see the color mapping in Map 1 for a straightforward case of a visualization which will get much more complex when more features with continuous scales are added).

The proposed approach is holistic and integral; with the help of computers we go all the way from raw text to areal typology. Reference grammars and expert knowledge are used only for evaluation.

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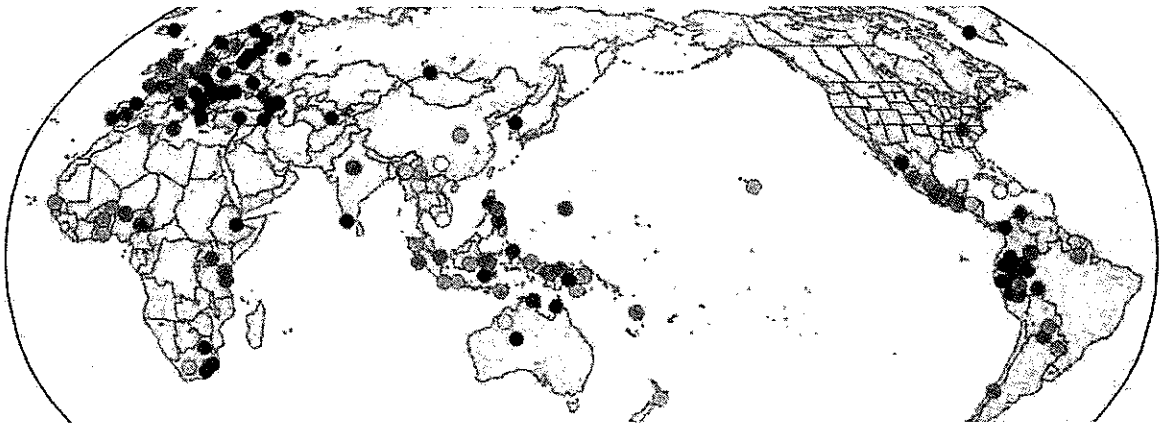
Map 1: Degree of synthesis (saturated color = highly synthetic, white = fully analytic, no affixes), prefixing (red) and suffixing (blue) extracted from translations of Mark



Laura McPherson (University of California, Los Angeles)
Towards a typology of grammatical tone

It is well documented that tone can be used not only to distinguish lexical items, but also to distinguish grammatical categories and syntactic structures. For example, from Tommo-So (Dogon, Mali), *Sáná nàà kòmmò* 'Sana's skinny cow' and *Sáná nàà kómmó* 'Sana's skinny mom' are distinguished by whether or not the tone (*kómmó*) of the adjective is assigned a L tone, which occurs when the possession is inalienable. While the best-documented cases of grammatical tone are found in African languages, closer study reveals syntax-sensitive tone in every one of the world's tonal zones. These phenomena are varied in form, but have in common the fact that tone is determined in part by the morphosyntax; that is, tone is not purely contained in the phonological domain.

Despite the prevalence of grammatical tone worldwide and the existence of general tonal typologies, a systematic typology of syntax-sensitive tone has yet to be undertaken. This typology is important in that it helps shed light on the way phonology and syntax may interact. Here we present the preliminary results of such a study, showing how certain patterns are widespread while others are unattested and considering possible implications. We also discuss the creation of an open source online database of grammatical tone in collaboration with Drs. Chris Collins and Dennis Shasha, developers of the SSWL (Syntactic Structures of the World's Languages) database. One challenge in assembling a database out of grammars is that surface tonal alternations are often not explained in terms of underlying processes; thus, soliciting input from researchers analyzing tonal languages is crucial in amassing a rich collection of data.

A typology of grammatical tone can be defined by two main parameters: type of tonal process (spreading, sandhi, floating tones, etc.) and domain (N+Adj, compounds, phonological phrase, etc.). We find patterns and gaps for both parameters. For example, in process type, we see that floating tones are found in at least four tonal zones: Africa (e.g. Kpelle, Welmers 1962), Asia (e.g. Kuki-Thaadow, Hyman 2007), Papua New Guinea (e.g. Fore, Scott 1990) and Meso-America (e.g. Sierra Juárez Zapotec, Bickmore and Broadwell 1998). However, in all cases, the tones dock at word edges, and no changes are ever observed solely on word-medial tones. That is, there are no tonal infixes, though autosegmental formalism permits the description of such a process. Turning to domains, initial results suggest that syntactic structure itself plays a key role in defining the domain of grammatical tone. For example, sandhi is more prevalent between a verb and its object than a verb and its subject. Furthermore, we find implicational hierarchies for sandhi, such as: if there is sandhi between a verb and its subject or an adverb, then there is sandhi between a verb and its object as well. Any exceptions to this hierarchy deserve careful study.

A final question at the heart of this typology is: What is the correlation between type of tonal system (prototypical Asian word-based or prototypical African mora-based) and the prevalence of grammatical tone? Traditional wisdom tells us that grammatical tone is a feature of African-type systems, but current research suggests that the story is not this simple. The question we then ask is this: Is there a correlation between the type of tone system and the type of grammatical tone? We know of no Asian tone system with structure-specific tone overlays and no African system with Mandarin-like sandhi. The goal of this typological database is to amass a large body of data to determine which factors correlate and how linguistic theory can account for such relationships.

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Helena Metslang (University of Tartu, Estonia)
Differential subject marking conditions in Finnic languages

Differential subject marking has sometimes been explained by the split intransitivity apparatus of ergativity studies. Witzlack-Makarevich (2010) has explained the causes for split argument marking by three main factor groups: the referential properties, the predicates and the whole clause (e.g. TAM, polarity and clause type). Nichols' (2008) typological study on split intransitivty which was based on split-prone verbs placed Finnish close to the lowest end of the ergative-accusative languages continuum: it has only very few ergative features. The talk will show that all the three kinds of conditions outlined by Witzlack-Makarevich (2010) are necessary for explaining Finnic subject marking split but their salience varies throughout these languages. In the talk, pragmatics and the specifics of the partitive case are discussed as significant case choice factors (Metslang forthcoming). I will show that including the existential clauses to the analysis gives us a different picture of the position of Finnish (and other Finnic languages) on the ergativity-accusativity continuum.

The totality-partiality system of the arguments' case-maring is wide-spread among all Finnic languages, mainly including the direct objects (e.g. Kont 1963: 49), predicate nominals (e.g. Larsson 1983: 60-62) and the subject-like arguments of the existential clauses (e.g. Lees 2008). In all these cases the argument alters between the nominative (in the case of the direct object, also the genitive) and the partitive: the nominative argument typically refers to total and definite quantity and the partitive argument to partial or indefinite quantity. Differential subject marking is more characteristic of the subjects with fewer prototypical properties, especially the subjects of existential clauses and they are closer to the objects (Helasvuo 1996; Koptjevskaja-Tamm and Wälchli 2001: 656, 665; Lees 2008; some authors even exclude the existential NP from the subject category: Helasvuo and Huumo 2010). The following examples are from Estonian.

(1) Selle-l kase-l on juba **lehe-d**. (cf. Vilkuna 1992: 61.)
this-ADE birch-ADE be.3 already leaf-**NOM**.PL
'This birch has leaves already.' Lit. 'On this birch is already leaves.' (definite quantity)

(2) Selle-l kase-l on juba lehti.
this-ADE birch-ADE be.3 already leaf.**PRTV**.PL
'This birch has **some** leaves already.' Lit. 'On this birch is some leaves already.' (indefinite quantity)

In the Finnic languages, the factors conditioning differential subject-marking greatly overlap. By analyzing the Bible translations of Finnish, Veps, Livonian and Karelian, Lees (2008) has identified that in all these languages apart from Livonian, partitive subjects dominate. However, Metslang (forthcoming), has shown that in the Estonian existentials, partitive subjects only form 34% of the existential arguments. Heinsoo (1985: 121) claims that in Votic, the partitive subject occurs considerably less than in Estonian and Finnish. In Estonian, the existential subject marking has the following determining factors: polarity; divisibility and other subject noun's properties; inclusivity marking on the NP (in the sense of Lyons 1999; both obligatory reading and facultative pragmatic implicature); verb-governed sentence pattern and presupposition (cf. Metslang, forthcoming; Nemvalts 1996). Often the function of the case-marking distinction is quite insignificant (Erelt et al. 1993). In the case of Finnish, divisibility and quantitative definiteness (inclusivity) have been emphasized as the main influencing factors (Hakulinen et al. 2004). Similarly to Estonian, the Votic subject case alternation stands for inclusivity or it does not convey a clear difference between the clauses with the nominative and partitive subject (Heinsoo 2010). The paper discusses the system of Finnic differential subject marking and seeks to explain the discrepancies.

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Sampling for variety

Language sampling is a central methodological issue in linguistic typology. Different research questions and settings require different types of samples. Rijkhoff & Bakker (1998) make a distinction between probability samples and variety samples. Variety sampling aims to capture as much structural variety as possible in the linguistic phenomenon under investigation, whereas probability sampling aims to produce samples adequate for quantitative measures and statistical testing. In this paper we focus on variety sampling, discussing and comparing two methods that have been designed precisely to construct this kind of samples – the Diversity Value (DV) based method (Rijkhoff & Bakker 1998) and the Genus and Macroarea (GM) based method (Miestamo 2005); for the notions of genus and macroarea, see (Dryer 1989, 2005).

In the DV method, the sample is stratified genealogically on the basis of the DV of genealogical groupings (independent families or lower-level groupings). The DV of each grouping is computed on the basis of the structure of the family tree, paying attention to the number and level of non-terminal nodes in the tree. The probability of a grouping to be represented in the sample is based on its DV. In the GM method, the sample is stratified genealogically so that every language comes from a different genus (as far as possible) and the number of genera to be taken from each macroarea is determined by the overall number of genera in the macroarea. A further stratification is made at the family level ensuring the balanced representation of families.

The sampling methods are compared with a large-scale computerized simulation of the sampling procedures, paying attention to how well they fare in achieving the goals of variety sampling, i.e. in capturing the whole range of the cross-linguistic structural variety found in a dataset. The datasets against which the simulations are compared stem from the *World Atlas of Language Structures* (WALS) database. On the basis of the measures we developed for comparing variety samples, i.e. SAT(uration), DENS(ity), DIS(tribution), and COMP(leteness), it is observed that both methods perform very well in finding all the different structural types in the datasets. Some differences can be detected between the methods, e.g., the DV method seems to perform better with lower sample sizes and the GM method better with larger samples. The factors behind the differences are discussed, and on this basis, an improved method of variety sampling combining the strengths of both methods is proposed, which takes into consideration both areal and genealogical aspects.

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Susanne Mohr-Militzer (University of Cologne)

Modality-specific criteria for word class recognition in sign languages: the verb class in Irish Sign Language (ISL)

Only very few researchers (e.g. Erlenkamp 2000; Schwager & Zeshan 2008) have treated the issue of word class distinction in sign languages and even fewer have treated the subject from a typological point of view. In sign linguistics, the topic of word classes is under-represented due to several methodological problems. A major issue is to find adequate criteria for word class differentiation, adaptable to the visual- gestural modality. In spoken languages parts of speech (PoS) research (e.g. Sasse 1993) semantic, morphological and syntactic criteria are considered. These however prove problematic for sign languages. On the syntactic level, e.g. a relatively free word order and simultaneous constructions hamper PoS analyses relying on syntactic criteria only while on the morphological level, sign languages show a mix of morphological types not found in spoken languages, so that morphological criteria are not easily applicable. Thus, additional criteria are suggested for PoS analyses in sign languages, which are unique to the visual-gestural modality. The use of different mouth actions is one of them (Crasborn et al. 2008).

In sign linguistics, a basic distinction between two different types of mouth actions is made: *mouthings* and *mouth gestures*. These have been found to co-occur with different word classes and to be dependent on the morphological complexity of a sign (Crasborn et al. 2008, Adone et al. 2009). However, this does not hold true completely for the verb class in Irish Sign Language (ISL). ISL shows the traditional tripartite division of the verb class (Padden 1988) into plain, spatial and agreement verbs. Morphologically simpler plain verbs, i.e. verbs with fixed beginning and end points (Aronoff et al. 2005) should occur most frequently with mouthings. Accordingly, the other two subclasses, namely spatial verbs whose beginning and end points are determined by their spatial referents and agreement verbs whose beginning and end points are determined by the R-loci of their grammatical arguments (Aronoff et al. 2005), should occur more frequently with mouth gestures.

The analysis of elicited data in the form of personal stories of 12 native signers from Ireland shows that mouthings occur most often with plain verbs, which are morphologically simpler than the other two verb classes. Spatial and agreement verbs occur almost equally frequently with mouth gestures (39% and 40% respectively), which fits the expectations. One question that remains is why the frequency of mouthings in both of the latter verbal subcategories is relatively high. Interestingly, many high frequency verbs such as GIVE form part of the agreement verb category. One possible explanation is hence that their morphology is no longer perceived as complex and they can be combined with mouthings. Other explanations more closely connected to ISL linguistic structure are possible as well.

From a cross-linguistic point of view, the study contributes to the general discussion of whether there are modality-specific properties in the linguistic structure of sign languages.

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Zarina Molochieva (UC Berkeley/Max Planck Institute EVA)
TAM and evidentiality in Chechen: a case of an equipollent system

This paper presents one of the most complex temporal systems that is known in current linguistic typology. The languages of the world have two major means to express time, viz. lexical or grammatical means to express reference to the past, present, or future. Chechen (Nakh, Nakh-Daghestanian) is one of the languages where the encoding of time expression is represented by the grammatical categories of tense, aspect, and mood, and it is one of the languages where the encoding of time is obligatory.

Equipollent temporal systems (morphologically marked temporal oppositions) are quite rare cross-linguistically. Mostly we find just one unmarked category, contrasted with a simple marked form. For instance, in Russian the perfective always has perfective meaning, whereas 'the imperfective may or may not have the imperfective meaning' (Comrie1976:113). Chechen data shows the equipollent aspectual oppositions, and a range of different aspectual types (focalized and durative continuous, iterative, habitual, iterative habitual, focalized, and durative continuous habitual, etc.). A huge number of synthetic and analytic tense forms (49 forms) require the speaker to make precise distinctions. Chechen verb morphology allows no default meaning of any category, i.e. there is no context where imperfective can have perfective meaning or perfective can be used for an event that was uncompleted. Chechen also has an equipollent evidential system with a witnessed/unwitnessed distinction and no default or unmarked category.

Precision in describing situations can also be achieved lexically (as do, for example, European languages), but, in Chechen, it is obligatory to express the temporal properties of a situation precisely. The typologically important point is not the number of categories which are used for the exact description the temporal properties; the important point is that it is obligatory to describe every temporal property of a situation, which in Chechen is possible to do morphologically. I also argue that the obligatory nature of describing temporal properties, in turn, requires the speaker to make assumptions as to how a situation occurred. For instance, in questions with unwitnessed tenses, the unwitnessed past is used when the speaker assumes that the situation is already completed and is not seen by the addressee, whereas the imperfect (or any other imperfective tense) would implies the speaker's assumption that the situation might still be in progress (1). The speaker reports unwitnessed situations exactly how the speaker assumes that they occurred even though he or she has not see them. The speaker chooses the TAM form that implies that the speaker knows or assumes the event is completed.

1.	*cuo*	*ch'eepalg-ash*	***d-i-na***	***xilli?***
	3SG.NOM	flat.bread.PL-NOM(D)	D-make:PFV-CVBant	be.PRF.Q

'Did she make some flat bread with cheese? (The hearer did not see this.)'

Analyzing such morphologically and semantically complex categories, which are partially based on the speaker's assumptions, as in Chechen, might help us shed more light on our understanding of encoding of time in the languages of the world.

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Cross Linguistic Study of Same- and Different-Subject Simultaneous Events in Sign Language Narrative Discourse

Consider the sentence:
1. John cooked and Mary washed the dishes.
How do we know whether the two actions are sequential or simultaneous?

The relationship between the two actions can be signaled in a variety of ways, including: conjunctions, temporal adverbs, aspect markers, etc. Sometimes multiple devices may be used, and sometimes the relationship is unmarked, and it is left to the "pragmatics" of the context to determine the nature of the relationship. Generally speaking, though, the two events are expressed as separate clauses laid out sequentially, with one preposed, postposed or inserted into the other.

If two actions occur simultaneously, how do we know whether they are performed by the same or by different subjects? The relationship between the subjects can also be marked in a variety of ways: by overt subject reference; use of 'zero'-subject in one clause; indexing with a classifier; use of same- or different- subject markers; etc.

Consider now the Japanese Sign Language (NS) sentence:

2. left hand:		COMMUTE(female classifier handshape+motion to left)
both hands:	MARRIED-COUPLE-2	
right hand:		COMMUTE(male classifier handshape+motion to right)
'The couple both work.'		

Sign languages are uniquely equipped to express simultaneous action. Whereas spoken languages must express clauses consecutively regardless of whether actions are simultaneous or consecutive, sign languages with their multiple articulators (including not only the *two* hands but also the signer's own body) are not restricted in this way. In the example just give, one event is expressed with the right hand while the other is expressed with the left. And the fact that each action is performed by a different subject is indicated by the classifier handshapes incorporated into the verbs.

Consider another NS example:

3. non-manual:			<u>head direction and eye-gaze to right</u>
left hand			BOWL(half)
both hands:	BOWL(left)	TV(right)	
right hand:			EAT
'(I) was eating while watching TV'			

Here the two actions are performed by the same subject simultaneously, one action expressed manually, and the other action "embodied" and expressed through the signer's own body.

In this paper we examine the various devices -- and the complex interplay of devices -- used for expressing simultaneous events, with both same and different subjects, in four sign languages: Indian Sign Language (ISL), Ethiopian Sign Language (YEMQ), Japanese Sign Language (NS), and American Sign Language (ASL). These sign languages are geographically distributed and also unrelated (except for YEMQ and ASL which, although related, do not have the simple mother-daughter relationship usually assumed).

Primary data for this study are taken from a corpus of retellings of "Felix the Cat" cartoons

by two Deaf signers of ISL, and by seven Deaf signers of YEMQ. This is supplemented by data from five additional signers of ISL retelling Aesop's fables, additional narratives by the same YEMQ signers, examples from the author's corpus of NS, and from commercially available narratives in ASL. Finally, some interesting examples from retellings of "Felix the Cat" cartoons by L2 signers of YEMQ are considered.

Åshild Næss (Oslo University)

Case and pragmatic salience: what a language without case can tell us about pragmatic properties of case-marking systems

Based on data from the Polynesian language Vaeakau-Taumako, this paper will suggest an approach to the study of pragmatic properties of case-marking systems, and of the functional links between case-marking systems and systems marking pragmatic structure.

Vaeakau-Taumako has prenominal markers which are cognate with casemarking prepositions in other Polynesian languages, but their functions are only marginally describable in terms of the properties usually ascribed to case-marking systems. Instead, they mark, firstly, any subject of a transitive clause which is displaced from its unmarked preverbal position (preposition *e*); and secondly, any noun phrase, regardless of its syntactic function, which holds a certain degree of salience in the discourse context (marker *a)*. In practice, this means that singular pronouns and person names are nearly always marked, kinship terms and other human-referring nouns are often marked, other definite nouns may be marked under conditions of particular prominence or relevance for the discourse, while nonreferential nouns are never marked. This greatly resembles the conditions typically found to govern systems of Differential Object Marking (e.g. Aissen 2003), and so the Vaeakau-Taumako marking system has central properties in common with certain types of case-marking system, even though it lacks essential features of case systems such as being associated with particular syntactic relations or semantic roles.

The data from Vaeakau-Taumako provides a starting-point for the study of which kinds of pragmatic properties may be relevant for case-marking systems, and how case-marking systems may develop into systems of pragmatic marking. The paper will propose a distinction between two types of "pragmatic salience": referentdetermined salience, which stems either from the inherent properties of an argument (animacy, referentiality) or its status in running discourse (new, given, identifiable); and speaker-determined salience, which is a property imposed by the speaker as a means of directing attention to particular aspects of discourse. The latter type of salience is what is encoded in typical topic/focus-marking systems; by contrast, referent-determined salience seems to be what governs the use of *a* in Vaekau- Taumako, as well as being the basis for Differential Object Marking in many languages. I will suggest that referent-determined salience is the key pragmatic property relevant to case-marking systems proper, and that it may be seen as the link between case-marking and pragmatic marking systems, and a starting point for mapping the relationships between different kinds of semantic, syntactic and pragmatic functions marked on nouns across languages.

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Countering bibliographical bias with LangDoc, a bibliographical database for lesser-known languages

Typologists usually base their research on documents with descriptive information about a language. With some 7,000 languages in the world, the number of relevant documents has grown far beyond the capacity of individual typologists. This not only concerns knowledge of the content of the document, but also knowledge of its mere existence. This leads to two forms of bibliographic bias: 1) typologists might only access material found in their library (library bias) and 2) typologists will only take into consideration material whose existence they are aware of (bibliographical bias, cf. Bakker 2011). Both types of bias have the potential to skew the sample. In this talk we present a project which has as its aim to remedy thesecond kind of bias and raise awareness of the wealth of descriptive material available.

The LangDoc projects aims to provide a freely available extensive online collection of bibliographical references for cross-linguistic research that can be used by anyone for download, search, subscription etc. The present collection, assembled through collaborative efforts between different continent-wide collections, spans some 150,000 references (Hammarström & Nordhoff in press). In addition to standard bibliographical data like author, title, year, publisher etc. (1), annotation of various kinds (target language, document type, macro area) is also present for the bulk of the references (2,3). As a special feature, it is possible to query taxonomic levels above the level of language, such as family, genus, or stock (4).

The following queries illustrate these possibilities:

1) "Give me any work by the author 'John Smith' "
2) "Give me anything written by 'Adelaar' treating a language in the macro-area 'South America' "
3) "Give me any grammar written by 'Dixon' "
4) "Give me anything about West Germanic/Bantu/Iroquoian"

These queries can be combined as in (5)

5) "Give me any dictionary of an Afro-Asiatic language spoken in the macro-area 'Africa' newer than 1950 with more than 200 pages"

The database is linked to a number of related projects such as OLAC, Multitree or Worldcat. Next to the possibility to browse different genealogical classifications (Ruhlen, WALS, Multitree Composite, among others), and the references attached to them, the database also features Fully Automated Sample Drawing, where users can generate a balanced and stratified sample according to the parameters of document type, sample size, algorithm to use, and language classification to use.

LangDoc is thus a useful tool for exploring references to descriptions of lesser known languages, which will help broaden the horizon of linguistic typology. We are anticipating that LangDoc will become available as of March 2011.

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Rachel Nordlinger (University of Melbourne)
From body parts to applicatives

In his typological study of applicative constructions, Peterson (2007) shows that applicative markers derive from a variety of sources, but finds no conclusive examples of an applicative marker having developed directly from a nominal (p. 141). In this paper, I present data from the polysynthetic, head-marking languages of the Daly River region of Australia's Northern Territory, in which applicative markers appear to have developed out of a range of incorporated body parts. I argue that this data has implications for both the typology of applicatives, and of polysynthetic languages more generally.

Consider the following examples from Murrinh-Patha:

(1) *mam-ngi-**ma**-nhet*
3sgS:DO-WITH-HANDS:nFut-1sO-**hand**-slice
'He cut my hand (with a knife).' (author, fieldnotes)

(2) *kardu* *wakal* *mangan-**ma**-art*
NC:human child 1sgS:SNATCH:nFut-**hand**-take
'I passed over the baby' (Walsh 1996: 364)

(3) *nganam-nhi-**ma**-kut*
1sgS:be:nFut-2sO-**hand**-collect
'I collected (the money) from you.' (author, fieldnotes)

(4) *bim-pun-**ma**-yepup*
1sS.HEAR.nFut-3plO-**hand**-hear
'I heard (the story) from them' (author, fieldnotes)

In (1) we see the regular use of the incorporated body part in which it expresses a part of the object, which is encoded with the object agreement marker *–ngi-*. In (2), the same incorporated body part is used in an adverbial function to convey the meaning of 'pass by hand'. The function in (3) and (4) is quite different, however. In this case the incorporated body part functions as an applicative, licensing the presence of a derived direct object, which would not be grammatical (with the given meanings) if the body part were not present. The example in (4) shows that this function has fully grammaticalised, such that it is used in contexts that clearly do not involve action with the hands.

There are few reports in the literature of incorporated body parts as sources for applicative markers (although see Gerdts and Hinkson (2004) on Halkomelem, and Reid (2000) on the Daly River language Ngan'gityemerri) yet it appears to be a robust areal phenomenon in the Daly River region involving a variety of body parts. In Ngan'gityemerri, the body part 'eye' functions as an applicative marker (Reid 1990, 2000) and in Marrithiyel, applicative markers derive from the body parts 'hand', 'eye' and 'belly' (Green 1989). Although Peterson (2007: 141) discusses Gerdts and Hinkson's and Reid's data, he suggests that the applicative in these cases may have arisen from an adpositional function of the body part, rather than from the nominal function, and that these cases do not, therefore, constitute a convincing counter-example to the otherwise robust generalization that applicatives develop from verbal and/or adpositional sources. In this paper, I present the full range of data from the Daly languages and argue that, once such data is taken into account, it is clear that the applicative functions could not have derived from adpositional functions of the incorporated body parts, and that we therefore need to allow for the fact that applicative markers can derive directly from nominal sources as well.

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Saeko Ogihara (University of Colorado)
Relative clauses in verb-final languages

This paper is devoted to an examination of relative-clause constructions in verb-final languages. The main goal of the study has been to investigate whether the final position of the verb affects the ways in which languages form relative clauses. The current study is based on 49 verb-final languages which were chosen from various language families. It argues that the final position of verb along with an argument-coding system (e.g., noun coding and verb coding) affect the ways in which verb-final languages form relative clauses.

Correlation between basic word order and the positional types of relative clauses have been discussed by several linguists. Among them, Downing (1979) and Lehmann (1973) have pointed out that there are correlations between VO basic word order and the use of post-nominal relative clauses. They also drew a correlation between the final position of verbs in basic word order and pre-nominal relative clauses. Dryer (1991, 2005a, 2005b), on the other hand, has asserted that there is no correlation between the positions of relative clauses and nouns and the final position of verbs (OV languages, in Dryer's terms) although he has found a strong correlation between VO basic word order and post-nominal relative clauses. In Dryer's study, both pre-nominal and post-nominal relative clauses are equally common in verb-final languages.

Close examination of relative clause constructions in 49 verb-final languages, however, reveals that although both pre- and post-nominal relative clauses are common in verb-final languages, depending on the argument-coding systems of a language, there are some patterns in relative-clause construction. More specifically, if a verb-final language codes the roles of core arguments explicitly on NPs (noun-coding), it tends to employ pre-nominal rather than post-nominal relative clauses. On the other hand, if a verb-final language codes the roles of core arguments on verbs (verb-coding), it tends to have greater freedom regarding the ordering of relative clauses and head nouns. Both pre- and post-nominal relative clauses are common only in verb-coding verb-final languages. The findings of this study indicate that noun-coding verb-final languages most often employ pre-nominal relative clauses, because it is easier for them to assign arguments to proper verbs in pre-nominal relative clauses than in post-nominal relative clauses, unless they employ a pronoun strategy. Assignment of arguments to proper verbs is easier in pre-nominal relative clauses for noun-coding verb-final languages because the verb itself (either the main or embedded verb) may function as a clause boundary. This may result in a preference for pre-nominal relative clauses among noun- coding verb-final languages.

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Bill Palmer (University of Newcastle, Australia)

Marking-locus and indexing-target: a case study of a typologically unusual mismatch

This paper presents a case study of a typologically unusual mismatch between marking-locus and indexing-target in Nasioi (South Bougainville Papuan), then examines how contact caused two neighbouring Oceanic languages to borrow this mismatch, each in quite different ways.

In her classic marking-locus typology, Nichols (1986) argued that relevant morphology simultaneously marks dependency and indexes properties of the head or dependent. N. Evans & Fenwick (2010) (EF) argue that indexing-target is a separate typological dimension independent of marking-locus. The four marking strategies are well known: head-marking (HM), dependent-marking (DM), zero marking (ØM), and double marking (2M). EF argue that corresponding indexing strategies exist: head-indexing (HI), dependent-indexing (DI), zero indexing (ØI), and double indexing (2I). Any marking strategy may align with any indexing strategy. For example, English, French, Spanish and German all mark possessive dependency on the dependent possessive determiner (so are DM for this dependency). However, the indexing varies. All index gender on the determiner, but English indexes only gender of the possessor, so is DM and DI (***his** man, **her** man, **his** woman*); French indexes only gender of the possessum, so is DM but HI (***son** homme* 'his/her man', ***sa** femme* 'his/her woman'); Spanish indexes gender of neither, so is DM but ØI (***su** hombre* 'his/her man', ***su** mujer* 'his/her woman'); and German indexes gender of both, so is DM and 2I (***sein** Mann* 'his man', ***ihr** Mann* 'her man', ***seine** Frau* 'his woman').

Nasioi (Rausch 1912) marks possessive dependency with a preposed particle that also indexes the number of both possessor and possessum. This indexing is located on the dependent, so is DM, but the feature number is indexed for both head and dependent, so is 2I. Number in possession in Nasioi is therefore DM-2I. Torau and Uruava (Oceanic), have a history of contact with Nasioi. Among various contact-induced changes (Palmer & B. Evans 2010), both have adopted DM-2I for number in possession. Oceanic languages typically index number of possessor but <u>not</u> posessum, so are DM-DI, and also distinguish classes of possessum. E.g Kubokota (Chambers 2009) in (2). In contrast, Torau and Uruava have both added possessum number indexing on the dependent. In Torau (Palmer n.d.) possessum class has been neutralized, and possessum number-indexing has been innovated, as in (3). (Note that Torau is also unusual in that plural is the unmarked number.) Uruava (Rausch 1912) has also innovated possessum number-indexing, but in a completely different way: by coopting former class-distinguishing morphology (compare (4) with (2)). In all three languages, possessum number indexing interacts with other forms of nominal number indexing in interesting ways, in the case of Uruava sometimes resulting in double marking of possession as well as double indexing of number.

(1)

ba-ka-na	*danko*	***ba-ka-ni***	*danko*
3**SG**PSSR-POSS-**SG**PSSM	spear	3**SG**PSSR-POSS-**PL**PSSM	spear
'his/her spear'		'his/her spears'	
bi-ka-na	*danko*	***bi-ka-ni***	*danko*
3**PL**PSSR-POSS-**SG**PSSM	spear	3**PL**PSSR-POSS-**PL**PSSM	spear
'their spear'		'their spears'	

(2)

ɣ ***a-na***	*ŋiru*	***nana***	*ŋiru*
CPOSS-3**SG**PSSR	coconut	CPOSS-3**SG**PSSR	coconut
'his/her coconut(s) (to eat)'		'his/her coconut(s) (to sell)'	
ɣ ***e-di***	*ŋiru*	***dia***	*ŋiru*
CPOSS-3**PL**PSSR	coconut	GPOSS.3**PL**PSSR	coconut
'their coconut(s) (to eat)'		'their coconut(s) (to sell)'	

(3)	*a-**na-na***	*gareni*		*a-**na***	*gareni*
	POSS-3**SG**PSSR-**SG**PSSM	garden		POSS-3**SG**PSSR	garden
	'his/her garden'			'his/her gardens'	
	*a-**di-na***	*gareni*		*a-**di***	*gareni*
	POSS-3**PL**PSSR-**SG**PSSM	garden		POSS-3**PL**PSSR	garden
	'their garden'			'their gardens'	
(4)	***e-na***	*bere*		***na-ŋi***	*bere*
	SGPSSM-3**SG**PSSR	spear		3**SG**PSSR-**PL**PSSM	spear
	'his/her spear'			'his/her spears'	
	e-di	*bere*		***di-ŋi***	*bere*
	SGPSSM-3**PL**PSSR	spear		3**PL**PSSR-**PL**PSSM	spear
	'their spear'			'their spears'	

Guozhen Peng (Zhejiang University of Technology)
Pragmatic based grammaticalization of SAY verbs in Jinghpo

According to cross-linguistic and areal studies, the grammaticalizaion of SAY verbs into complementizers, subordinating conjunctions has been well attested for language families located particularly in the African, South and Southeast Asian regions, including the Sinitic or Chinese languages (Chappell 2008, Lord 1993)

In Jinghpo, an SOV Tibeto-Burman language, there are two SAY verbs (*nga* and *ngu*) undergoing grammaticalizatin into a complementizer. The development of the two complementizers in Jinghpo presents an intriguing case for grammaticalization because of two reasons. First, the distribution of these two complementizers is highly pragmatic orientated, depending on such pragmatic roles as speaker and hearer. Second, the two verbs differ from common SAY verbs in other languages in that their original lexical meaning is polysemous, indicating saying, emotional or cognitive activities. When they are not used as complementizers, their exact semantic interpretation varies according to different nominal elements or other verbs that occur in the same sentence. Therefore, they are most often untranslatable by a simple English expression and encode such meanings as 'feel', 'think', or 'say'. Thus, these verbs are often referred as 'light verb' in the related literature.

This paper will attempt to provide a comprehensive analysis of these two verbs in their function as a complementizer. As a point of departure, this paper will first discuss the various shades of verbal meaning of the two verbs. Then, we goes on to discuss the verb types that are subcategorized for their ability to take *nga* and *ngu* complementizers for introducing complements, based on the implicational hierarchy of verb classes co-ccuring with quotative complementizers: factive verbs in general > modal verbs > stative and emotion verbs > cognition and perception verbs > speech act verbs (Chappell 2008). In particular, we will explore how the 'light verb' usage is related to the new grammatical meaning of the complementizer. Furthermore, we will elaborate on how discourse roles and pragmatics are involved in the choice of the two complementizers, showing that this conforms to the fact that many grammatical relations in the Jinghpo language is discourse or pragmatics based.

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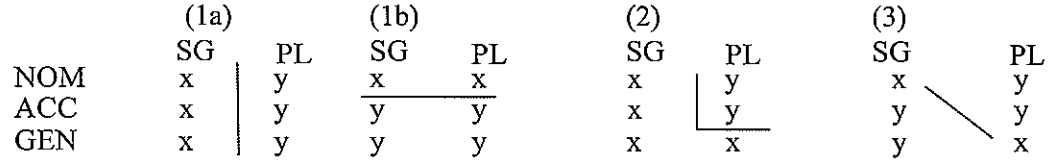
Frans Plank (University of Konstanz)

Patterns of suppletion and the temporal nature of constraints on crosslinguistic diversity

The relationship of typology and diachrony is an old issue, and continues to be debated controversially. The question is whether limitations of crosslinguistic diversity are due to timeless laws or to laws of change. On the first interpretation no language at any time would be allowed to contravene such laws regardless of previous and subsequent stages, which would guarantee that no language would ever change so as to end up being in contravention. On the second interpretation constraints would instead be curbing change, with limitations of diversity as the automatic consequences of what are impermissible transitions from one state to another.

In many cases this would seem a moot question. For example, a timeless law "No dual without a plural" is effectively equivalent to a law of change, "No innovation of a dual without a plural being distinguished from a singular (or such a number distinction being innovated simultaneously), and no loss of a plural as long as a dual is being distinguished (or such a number distinction is being lost simultaneously)". In other cases, a constraint can be made sense of time- lessly as well as diachronically, although the motivations may be quite different. For example, "No infixes without adfixes" is plausibly motivated as an instantiation of a timeless dispreference of discontinuous constructions, harder to store and process than continuous constructions, but no less plausibly as a diachronic regularity to the effect that infixes can only ever originate from adfixes, internalised in order to optimise prosodic structures or (rarely) trapped inside an outer adfix.

Here I will present a case – and I think this is a rare case – where limited diversity can **only** be accounted for diachronically and where **no** timeless law can possibly be invoked, thereby demonstrating that constraints **can** be of different temporal natures. The question is how suppletive stems can be distributed over inflectional paradigms, and the possible constraint is to do with whether the distributions have to respect paradigmatic structures. Modelling paradigmatic structures in terms of geometric arrangements, suppletion often patterns as in (1), with each suppletive stem extending over a solid block, as defined by a single inflectional category (with number and case merely used for exemplification). Suppletive stems can also extend to a neighbour outside their block, with the more complex distribution then having to be stated in terms of two categories ((2), stem *x* used for SG and GEN.PL). The most complex distribution conceivable are crossovers, with no uniform arrangement of the categories and their terms possible where the relevant cells would be horizontal or vertical neighbours ((3), stem *x* used for NOM.SG and GEN.PL).



Now, a survey of suppletion across a wide range of languages, in addition to frequent instances of patterns (1) and (2), also unearthes, if comparatively rarely, instances of crossovers (3). Hence, on empirical grounds, there can be no timeless law prohibiting such crossovers.

However, when focusing on how suppletion comes about, a diachronic constraint **can** be maintained. When suppletion is created through the combination of forms of separate lexemes in one paradigm, then paradigm structures **must** be respected and crossovers **are** pro- hibited. When suppletion develops through phonological dissimilation of allomorphic stems of one

lexeme, just about anything goes distributionwise. The impossibility of a timeless constraint on paradigmatic distributions is due to the indistinguishability of the different modes of origin of suppletion, combination or dissimilation, from the net results of such changes.

Mark W. Post (The Cairns Institute, James Cook University)

Nominalization-based constructions in Tibeto-Burman languages: Typology and evolution

Nominalization-based constructions in Tibeto-Burman (TB) languages have long been a topic of intense interest and debate. Beginning with Matisoff's seminal (1972) paper, analysts have primarily adopted two perspectives: (1) description of nominalization-based constructions in a language or branch of the family and (2) argumentation in favour of or against analysing the relevant set of constructions as synchronically nominalization-based (DeLancey 1986; Genetti 1992; Noonan 1997; Bickel 1999; DeLancey 2002). A pan-TB typology is lacking, although partial accounts are provided by Genetti, Bartee et al. (2008) as well as Yap and Matthews (2008), from a more general East Asian perspective.

Recent years have seen an explosion of descriptive accounts of nominalization-based constructions in previously little-known TB languages (cf. numerous papers in Coupe, Ed. (2008), Yap, Grunow- Hårsta et al., Eds. (in press) and Hyslop, Morey et al. (in press), as well as several recently-completed grammars), such that it should now be possible to construct a more comprehensive and explanatory account of TB nominalization, from both synchronic and diachronic perspectives.

The present paper attempts such an account. It argues that TB nominalizers derive from exactly three sources: genitive postpositions in the construction [{N GEN} V], noun phrase referential modifiers (demonstratives, articles, and classifiers) in the construction [{V ART} N] and semantically general nouns ('person', 'place'...) in the construction [{V N} N]. Adapting the analysis of Deutscher (2008), it further argues that all of these grammaticalization pathways share an initial state in which zero- nominalization of a predicate and appositional modification of a nominal are both possible. Finally, it shows that examples of such "initial states" are provided by, among other languages, modern-day Singpho and Old Chinese, and have probably been achieved repeatedly in the histories of TB languages as a result of multiple partial creolizations (Burling 2007; DeLancey in press).

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Kirill Prokhorov (Humboldt University Berlin)

Grammatical relations and inofrmation structure in Dogon languages

In the traditional descriptive terminology, grammatical relations are taken to be universal in a sense that terms like 'subject' or 'direct object' are universally applicable to any language. This assumption has been seriously criticized in last twenty years (Dryer 1997; Van Valin 1993). The main emphasis in this criticism was on languages in which grammatical relations exhibit a high sensibility to the role semantics. These studies gave rise to a view that grammatical relations generally arise as grammaticalized semantic roles. Recently, several studies (Maslova 2006; Good 2010) occur presenting the evidence that in some languages grammatical relations develop out of information-structural categories, like topic and focus. This paper discusses the material of Dogon languages (Eastern Mali), arguing that a high information-structural sensibility that grammatical relations in these languages exhibit is an evidence that they follow the latter direction.

The paper proceeds from an assumption that a clause has a default information- structural profile in which its basic elements are raked with respect to their default topicality/ focality. Thus it is widely accepted that 'subjects' are generally tend to be topics, while 'objects' normally function as foci (Du Bois 1987; Lambrecht 1994 inter alia). From this perspective several construction in two Dogon languages, Mombo (Prokhorov, field notes) and Tommo So (Plungian 1994; Maslova 2006; McPherson, field notes), are considered.

In Mombo neutral declarative clauses, the subject occupies a clause-initial position and triggers the agreement in person and number on the verb. Pronominal subjects are expressed solely by a suffix on the verb. In the subject focus construction, the 'subject' occurs in the position immediately before the verb and the verb shows no agreement with the 'subject'. That is with respect to two features Mombo subjects show a dependency from topicality. Once default topical status of the subject is changed in the subject focus construction, it looses two features of structural priority. The immediately preverbal position in Mombo is used for several purposes. In the transitive construction it hosts the P. In the ditransitive construction, it is occupied by the R argument. Finally, every focalized constituent, whichever the grammatical relation in a declarative clause it corresponds to, also occur immediately before the verb. So this position is always occupied by the most focal element in the clause and the ditransitive alignment found in Mombo is grounded in a strong discourse correlation between the P and R roles on the one hand on focus on the other.

A similar situation is found in the Tommo So case marking system. The clitic *=ŋ* attaches to discourse-prominent P's or marks the R in the ditransitive construction, while the T optionally takes the same clitic. The same clitic is used with a focalized S in intransitive clauses, but never marks A in transitive subject focus constructions. This distribution reflect the principle of ergative patterning of discourse (Du Bois 1987), according to which the S and A differ with respect to their default topicality. Unlike S, A is very rarely takes focus function. Thus, Tommo So like Mombo marks the most focal element in the clause, but unlike Mombo, it makes an additional distinction between S and A.

Zhenglin Qu (Shanghai Normal University)

The cross-linguistic placement of modification markers in NPs and its explanation

Dik (1997) proposes that relators have their preferred position: (i) in between their two relata; (ii)at the periphery of the relatum with which they form one constituent. In terms of dependent-marking, there are four orderings: two are preferred and two non-preferred.

(1) Preferred: a. [[dependent]R]...[head]
b. [head]...[R[dependent]]
(2) Non-preferred: c. [R[dependent]]...[head]
d. [head]...[[dependent]R]

Our investigation of 79 languages of China documented in Sun et al. (2007) leads to the following tetrachoric table:

orders / M	Mm N	N mM	N Mm	mM N
Demonstrative (9)	9		1	
Quantifier (8)	8			
Pro/Noun (78)	65	17	2	
Adjective (44)	33	8	4	
RC (36)	28	7	3	

(M=modifier m=modifier marker N=noun head)

The table indicates that the distribution of 2d is much more than 2c, which is almost none.

We explain the above tetrachoric table with the explanatory model of two-motivation interaction (Lu & Jin 2010). Specifically, one motivation is that the modification markers tend to appear in between the head N and its modification. The other motivation is that modification marker tend to be post-positional. MmN meets both motivation, thus being dominant. NmM and NMm each meet one, thus existent. mMN meets neither, thus none-existent.

The following is the distribution of modification markers in 84 languages of China:

Sino-Tibetan:
Chinese (1): Chinese
Tibeto-Berman(41): Tibetan, Manba, Baima, Tshangla, Lisu, Lahu, Hani, Jinuo, Naxi, Tanglan, Bisu, Sangkong, Kazhuo, Rourou, Nusu, Tujia, Pai, Kachin, Geman, Anung, Idu, Tani, Sulong, Bengru, Achang, Zhaiwa, Langsu, Xiandao, Bola, Leqi, Chiang, Pumi, Muya, Erlong, Ersu, Namuyi, Shixing, Zhaba, Guiqiong, Lawurong, Queyu
Kam-Tai(17): Lingao, Biaohua, Sui, Mulam, Mao-nan, Mo, Chadong, Yangguang, Lakia, Loi, Cun, Kehlao, Buyang, Laji, Bugan, Mulao, Caijiahua
Hmong-Mien (Miao-Yao) (7): Hmong, Bunu, Baheng, Jiongnai, Mian, She, Bana
Austronesian (11): Amis, Paiwan, Bunun, Pazeh, Thao, Kavalan, Tsou, Puyuma, Yami, Saisiyat, Tsat
Austro-Asiatic (7): Va, De'ang, Blang, Kemi, Gin, Lai, Mang

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Seongha Rhee (Hankuk University of Foreign Studies, Republic of Korea)
Analogy-driven grammaticalization: a case of grammaticalization of sentence-final markers from concomitance-connectives

Korean has numerous connectives whose functions are so subtle that their functional boundaries cannot be clearly delineated. Highly grammatical by nature, these connectives are highly polyfunctional. Among them is connective *-mye* that exhibits an intriguing grammaticalization pattern. Connective *-mye* started its life as one denoting concomitance, attested in the oldest extant historical records in Old Korean. It was one of the most frequently used connectives in Middle Korean and consequently was subject to formation of high-frequency syntagmatic units, which eventually grammaticalized into markers of conditionality, simultaneity, background, commensurability, adversativity, contrast, permissive modality, etc.

In the 19th century *-mye* comes to form its semantically and phonologically reinforced form *-myense,* which is highly polyfunctional whose predominant uses include one as a connective marking simultaneity and one as a sentence final particle marking confirmation, reconfirmation, challenge and sarcasm.

In Modern Korean, *myense* undergoes further syntagmatic fusion with complementizers that bear the traces of the mood marker of the embedded clause; *-ta/-la* for declarative, *-la* for imperative, *-nya* for interrogative, and *-ca* for hortative. With phonological erosion of the highly complex unit, e.g. *-takohamyense* 'while saying that...' with a declarative mood-marked clause, *-myense* eventually creates a paradigm represented by *-tamyense.*

Behind the historical progression of the grammaticalization process as briefly surveyed above are interesting mechanisms that triggered such changes. The development of the connective into a sentence-final particle is a result of ellipsis in which the main clause is withheld (Rhee 2010; cf. Ohori's 'suspended clauses' (1995), Evans's 'insubordination' (2007)). When the main clause is missing, the addressee is compelled to reconstruct the elided main clause, a process where context-induced reinterpretations (Heine et al. 1991), or invited inferences, actively take place. Such reinterpreted meanings are actively being conventionalized to become a part of the semantics of the newly created sentence-final particle.

Furthermore, what is more interesting is the concomitant phenomena in which the grammatical forms follow the most frequently-used form that spearheads the change. For instance, those forms incorporated with the imperative, interrogative, and hortative mood markers follow the one with declarative marker. According to a quantitative analysis, such change is enabled purely by their semantic and morphosyntactic similarities, i.e. their paradigm membership, despite their extremely low token frequencies. This is contra two important hypotheses: that analogy is not a decisive mechanism of grammaticalization and that the high frequency is as essential as a prerequisite to set a condition for grammaticalization. Based on a corpus-based quantitative analysis, this paper shows how the two important grammaticalization hypotheses are violated and discusses its implication in grammaticalization theory.

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Diana Schackow (University of Leipzig)
Hierarchical alignment and syntactic ergativity in Yakkha (Kiranti)

Introduction

This paper introduces a recently found construction in Yakkha (Kiranti) that combines hierarchical alignment with long-distance agreement (LDA) and syntactic ergativity in complement clauses.

Syntactic ergativity is defined as the identical treatment of S and P arguments by a syntactic construction such as conjunction reduction, relativization or complementation. There are only few analyses of syntactic ergativity in infinitive complement constructions, cf. Bickel and Nichols (2001) for a case in Belhare (also Kiranti).

Hierarchical alignment is the 'morphological and syntactic treatment of arguments according to their relative ranking on the referential (...) hierarchies' (Siwierska, 1998, 10). With reference to agreement, this means that 'access to inflectional slots for subject and/or object is based on person, number, and/or animacy rather than (or no less than) on syntactic relations' (Nichols, 1992, 66). Algonquian languages (Zúñiga, 2007) and Tibeto-Burman languages, e.g. rGyalrong (Nagano, 1984), Rawang (LaPolla, 2007) Hayu (Michailovsky, 2003) and Dumi (van Driem, 1993) show hierarchical alignment in their verbal paradigms.

The phenomenon

The case described here was found in Yakkha, a language from the eastern branch of the Ki- ranti family (Tibeto-Burman). The verbal morphology cross-references actors and undergoers in transitive verbs. There is no hierarchical alignment in the agreement morphology. Hierarchical alignment can however be found in one of the complement constructions of Yakkha, namely in the obligative, constructed with a copula as matrix verb. The copula has only forms for first and second person, and agrees with the embedded S in intransitive clauses (zero for third person). As this copula has only one agreement slot, the question arises, while arguments of transitive (and ditransitive) verbs will trigger agreement in the matrix verb. The choice depends on the referential properties of the actor and the undergoer. The matrix verb agrees with whatever is a speech act participant, as shown in example (1).

(1)	a.	**ka**	uŋci	sop-ma	**ŋan**
		1S.NOM	3NS.NOM	watch-INF	COP.1S
		'I have to watch them.' (SAP>3: A)			
	b.	uŋ	**nda**	sop-ma	**gan**
		3S.NOM	2S.NOM,	watch-INF	COP.2
		'He has to watch you.' (3>SAP: P)			

In competing scenarios (1>2 or 2>1), the copula always agrees with the P argument. Thus, the P argument is aligned with the S argument in this construction, a case of syntactic ergativity, illustrated by example (2).

(2)	ka	**nda**	sop-ma	**gan**
	1S.NOM	2S.NOM	watch-INF	COP.2S
	'I have to watch you.' (SAP>SAP: P)			
(2)	nda	**ka**	sop-ma	**ŋan**
	2S.NOM	1S.NOM	watch-INF	COP.1S
	'You have to watch me.' (SAP>SAP: P)			

This construction is worth discussing for many reasons. On the one hand, the syntactic erga- tivity demonstrates that matrix verbs like 'must' and their embedded complements do not

always treat their S and A arguments alike, while was stated as a universal by (Dixon, 1994, 135). On the other hand, it shows that even if the regular agreement of a given language is not organized according to a referential hierarchy, the syntactic constraints may very well access this hierarchy. The Nakh-Daghestanian language Dargwa exhibits the same pattern in verbal agreement (Zúñiga, 2007, 208), but in Yakkha, only this particular complement verb shows hierarchical align- ment. Unfortunately, also recent grammars, e.g. Doornenbal (2009); Rutgers (1998) on other Ki- ranti languages, are silent about the various patterns one can find in complement constructions. For instance, Yakkha shows at least five different complement constructions, only one of while was introduced here. The construction also raises theoretical questions about while clause a raised argument belongs to. More detailed descriptions would allow better comparison within and be- tween language families, and could work as input and corrective for claims about the universals of language and for theories about raising in general.

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Anna Schwarz (The Cairns Institute, James Cook University)
Specificity effects in discourse and the typology of nominal classification

Systems of nominal classification display considerable cross-linguistic variation and have been categorized into various types according to their morphosyntactic and semantic features (Heine 1982, Dixon 1986, Corbett 1991, Grinevald 2000, Aikhenvald 2003, and others). Considering some Amazonian and African case studies this talk strives to integrate discourse- pragmatic motives for nominal categorization, namely the more or less articulated need or intention to refer to specific entities in the universe of discourse. This investigation concerns the classifier systems in the Amazonian Siona/Secoya language group (West Tucanoan) and the noun class systems in the African Buli/Konni language group (Gur) which deviate from clear-cut prototypical classificational patterns to some degree (see also Grinevald and Seifert 2004). In Secoya, a gender system based on the natural sex of mainly humans (1) and a largely shape-based classifier system for inanimates (2) coexist side by side, both expressed by nominal suffixes (Johnson and Levinsohn 1990). However, the suffixes of both subsystems can be combined for particular effects. Adding the human/animate plural suffix, the noun in (2c) is marked for plural twice, thus conveying a moment of displeasure that would fit in a context where the sticks are conceived as nuisance. As most plural suffixes require an already number-inflected stem, the pejorative form in (2c) contains four suffixes.

(1)	gender: sex		(2)	classifier: shape	
a.	iye	nomi-o	a.	iye	tara-pë
	PROX:DEM	woman-FEM		PROX:DEM	stick-CL.spherical
	'this woman'			'this stick'	
b.	iye	nomi-o-wa'i	b.	iye	tara-pë-a
	PROX:DEM	woman-FEM-AN.PL		PROX:DEM	stick-CL.spherical-PL
	'these women'			'these sticks'	
			c.	iye	tara-pë-a-o-wa'i
				PROX:DEM	stick-CL.sph.-PL-FEM-AN.PL
				'these sticks' (marked: pejorative)	

I will discuss the intersection between reference to specific entitites and the category number in classifiers in comparison with the selected African noun class systems. The latter display several familiar formal properties of Niger-Congo noun class systems. Nouns are largely overtly marked by noun class suffixes which distinguish between so-called "indefinite" and "definite" NPs in singular and plural (Kröger 1992, Cahill 2007). Closer look reveals that what is actually marked by these suffixes is either specific reference and/or number, accompanied by a further marked form that is non-referential (see also "general number", Corbett 2000) or an unmarked form that is referential *per se*. The particular reference/number-marking correlation depends on referential strategies that are in accordance with the (intended) lexical semantics of the noun, among others:

- several kinship terms are inherently referential and receive only number marking (=plural)
- specificity efforts for mass nouns coincede with "number" marking: reference by mensural (collective "plural") or sortal (=singular) operations
- reference requirements for individual inalienable body part terms can be satisfied via associative strategies: reference to a specific possessor implies reference to specific body part

A discourse-pragmatic approach in terms of overt specificity and/or number marking of intrinsically more or less non-referential nouns can account for several puzzles and reveals considerable functional parallels between different types of classification systems including classifier types in Asian languages (Matthews and Pacioni 1997, Pacioni 1998, Erbaugh 2002).

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Frank Seifart (Max-Planck-Institute for Evoluntionary Anthropology)
Cross-linguistic variation in the noun-to-verb ratio

This paper studies the cross-linguistic variation in the noun-to-verb ratio (NTVR) in annotated corpora consisting of more than 20,000 words for each of the following five languages: Chintang (Tibeto-Burman), Bora-Miranya (Boran), Baure (Arawakan), N|uu (Tuu, "Southern Khoisan"), and Sri Lanka Malay (Austronesian). It shows that the NTVR is relatively independent of language-specific morphosyntactic rules of argument marking and realization. Much more important factors seem to be local narrative traditions. This concerns the cross-linguistic differences in the overall mean NTVR as well as the variation in the NTVR at different stages in narrative texts. This latter variation is possibly additionally influenced by cognitive constraints on the activation of discourse participants.

The NTVR is calculated as the number of nouns divided by the sum of the number of nouns and the number of verbs. The NTVR in the five languages studied here are statistically significantly different, e.g. the mean NTVR for Bora-Miranya is 0.39; for Chintang 0.44; and for Sri Lanka Malay 0.57.

Within these languages, variations in the NTVR according to individual speaker and genres are insignificant. There are certain correlations between the NTVR and language-specific grammatical rules of argument marking and realization. For instance, in N|uu subjects (and sometimes objects) are obligatorily realized and there is no cross-referencing of arguments on the verb. This leads to the use of many noun phrases and thus a relatively high NTVR, at least if pronominals are include in the count of nouns. However, these factors are not sufficient to explain most of the cross-linguistic variation in the NTVR in our sample of languages. For instance, in Sri Lanka Malay, the realization of any argument is syntactically optional. This should lead to a low NTVR, but it is in fact markedly high. We suggest that local narrative traditions, which may be areally distributed, have overall a stronger influence on the mean NTVR of a language than general typological characteristics such as the grammar of argument marking and realization.

We also found interesting patterns of variation in the NTVR in narrative texts, based on measurements in progressive windows of five clauses (window 1: clause 1-5, window 2: clause 2-6, etc.), and calculations of means for all narrative texts for each language (Figure 1). These analyses show that at the beginning of narrative texts, there is consistently a decrease in the noun to verb ratio, as expected. They also show characteristic, sinusoidal alternations of the NTVR as narrative texts unfold, with peaks at about 10-15 clauses. The exact shapes of the curves describing these alternations may again be related to local narrative traditions. The fact that all language show peaks in the NTVR at about 15-25 clauses, on the other hand, may reflect universal cognitive constraints on the activation of discourse participants, which necessitate their re- introduction, often by full lexical nouns, after their activation has decayed, ultimately due to constraints of short-term memory.

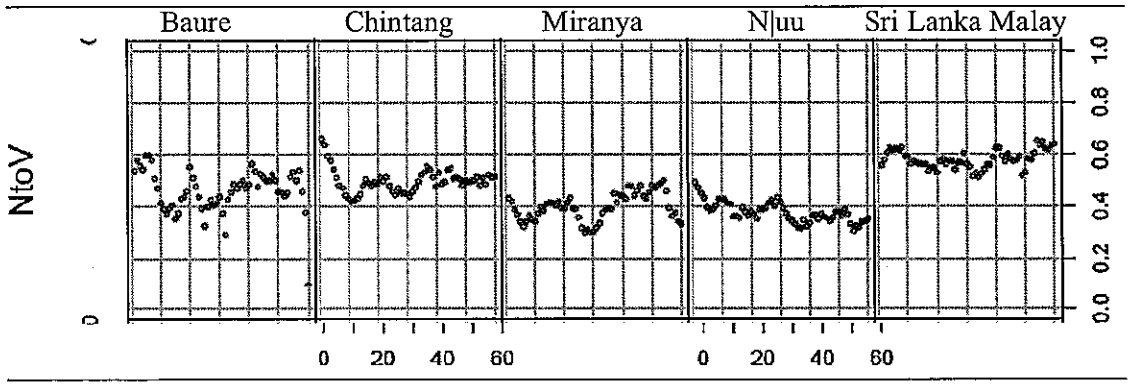

Figure 1: The sinusoidal variation in the NTVR in the fist 60 clauses of narratives

Anna Siewierska (Lancaster University)
Eva van Lier (Lancaster University)

'Introduce' cross-linguistically – Towards a typology of non-prototypical three-participant constructions

This paper focuses on a non-prototypical type of three-participant event, namely one that involves two human non-agentive arguments. Given that the presence of two human non-agentive arguments constitutes a departure from the typical ditransitive events of transfer of possession (e.g. give X to Y), change in sentience (e.g. tell X Y), change of location (put X in Y) or caused motion (bring X to Y), the following question arises: How are three-participant events with two human non-agentive arguments typically conceptualized, and how is this reflected in lexical and morpho- syntactic constructions?

We know, based on corpus data from several European languages, that three- participant events with two human non-agentive arguments are rather rare. Nonetheless, individual trivalent verbs differ widely in this respect, and there are, in fact, specific event types that occur most often with two human non-agentive arguments. In this paper, we will present the results of a systematic cross-linguistic survey of one such event type: 'introducing'. Our study is based on 50 languages, which are mostly European, but also include a number of genetically diverse non-European languages.

It will be argued that the linguistic expression of 'introduce' events is strongly tied to the lexical source of the predicate, the major source concepts being: (i) 'put/place before', (ii) 'lead into, and (iii) 'make know'. Most languages use more than one lexical verb to express 'introduce' events, depending on the referential properties of the two non-agentive participants. These lexical verbs, in turn, combine with various different morpho-syntactic structures. In addition, the data show that languages and individual verbs differ with regard to which scenarios are restricted by the Ditransitive Person Role Constraint (Haspelmath 2004), and/or by potential role ambiguity (cf. Kittilä 2006, 2008). A range of formal effects of such restrictions will be illustrated.

In conclusion, our study shows that of the typical three-participant events, transfer of possession tends not to be employed as a model for 'introduce' events. At the same time, the verbs that lexicalize 'introduce' events across languages differ in terms of their source concepts, and, in relation to this, in their patterns of co-occurrence with specific scenarios and morpho-syntactic constructions. Overall, the attested variation in expression strategies can be characterized as reflecting the markedness of events with two human non-agentive arguments.

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Thomas Smitherman (University of Bergen, Norway)

Oblique subject marking and grammatical relations alignment: a diachronic typological view

This paper seeks to establish a stronger relationship between the phenomena of "oblique subject" argument marking and the status of "semantic alignment", a broader and more accurate term (see Donohue & Wichmann 2008) for the former designation of "active-stative" alignment (see Kilmov 1974, 1977, et al.). The concept of "oblique subject" refers to argument marking that is not canonical according to nominative or ergative typology (e.g., an apparent subject in an object case, be it beneficiary/dative or patientive/accusative).

Georgian, along with most of the Kartvelian languages, has traditionally been analysed as having ergative typology. However, studies since the 1980s have challenged this view (Harris 1981, 1985), concluding that they are active type langauges. The basis for this change is alleged to be the behaviour of active-intransitive verbs, which defenders of the ergative-hypothesis insist to be of transitive origin (e.g., Hewitt 2008). This debate overlooks the more obvious feature of Class IV stative verbs and the derived perfect Series III, which uses so-called "inverse" case-marking. It is clear that, at least in Late Proto-Kartvelian, stative verbs and the perfect aspect demanded a DAT-(NOM) pattern, while the present tense of active verbs was NOM-DAT (Smitherman 2007).

To a lesser degree, functionally stative predicates in earlier Indo-European languages were often expressed by the DAT-NOM and ACC-NOM case frames (ex. 1-3). Research seeking to identify as many of these predicates as possible has thus far revealed up to 140 cognate roots forming oblique subject constructions (Barðdal and Smitherman, manuscript), suggesting far more reconstructible oblique subject constructions than the *deḱ- and *$h_1$es- identified by Bauer (2000).

Quite often, one etymological root in both Indo-European and Kartvelian is capable of forming at least one active/canonical construction and one inactive/non-canonical constructions. This itself is, indeed, a feature of "Fluid-S" semantic alignment where the diathetic (active/inactive) orientation of a given proto-sememe determines grammatical marking. The correspondence between the canonical and non-canonical constructions often appears to involove a patterned metaphoric (constructional) polysemy.

Extreme and absolute identifications of a language with a particular grammatical relations alignment system are best avoided. This paper merely seeks to establish that (a) the oblique subject phenonmenon is usually related to semantic alignment (i.e., it reveals traces of such an alignment, not necessarily establishing it as dominant); and (b) therefore, the reconstruction of such constructions must be taken into account when reconstructing grammatical relations. According to this view, Proto-Kartvelian is strongly semantically aligned, while Late PIE shows competing features of nominative/syntactic and active/semantic alignments.

Examples

1) Greek: ὅτι **μοι** *λυσιτελοῖ* ὥσπερ ἔχω ἔχειν -Plat.*Apol.*22e
CONJ **me**$_{DAT}$ *profit*$_{3SG.OPT}$ even.as have$_{1SG}$ have$_{INFIN}$
"that *it is better for* **me** to be as I am" (trans.-H.N.Fowler)

2) Old Russ.: Togo děla **tobě** vskorě ne *lzě* že upravit -Pskov. I letopis 6977
This$_{GEN}$ matter$_{GEN}$ **thee**$_{DAT}$ fast$_{ADV}$ NEG *permitted* PTCL send.away$_{INFIN}$
«**You** are not *allowed* to avoid/rid yourself of this issue so quickly/easily.»

3)Vedic Sanskrit: **yáṁ** hi vāg *juṣáte* sá kṣatriyaḥ -MS 3.7.5
who$_{ACC}$ since speech$_{NOM}$ *pleases* he$_{NOM}$ kṣatriya$_{NOM}$
"Since **he who** *likes* speech/to speak is a kṣatriya"

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Exploring the diverse semantic behaviour of motion verbs in North American languages

This abstract presents results of a PhD Doctoral Dissertation testing the performance of motion verbs in a sample of North American languages using original (i.e., non-translated) texts. It covers the linguistic fields of lexical typology, areal linguistics and language typology in general. The aim of this project has been to test how much typologically relevant information can be extracted from original texts instead of relying on traditional language resources like reference grammars. Original texts are a data source that is both reliable and available for North American languages, since most of those languages have been extensively covered by linguists in the beginning of the last century. In order to increase comparability, only traditional narrative texts, the genre most widely attested in original text collections have been used and collected in a data-base which features large quantities of motion-verbs of the languages covered. The North American languages that have been checked for their performance include Bella Coola, Cahuilla, Comanche, Crow, Cupeño, Dakota, Eastern Pomo, Fox, Haida, Hanis, Havasupai, Hupa, Klamath, Kwa'kwala, Luiseño, Lushootseed, Maidu, Mandan, Mohawk, Nass-Gitskan, Nahuatl, Navaho, Pawnee, Pima Bajo, Quileute, Shasta, Shoshone, Takelma, Tlingit, Tohono O'odham, Tonkawa, Wintu, Wichita, Yuchi and Zuni. Some of these languages pertain to large family stocks while others represent language isolates.

A typology of motion verbs needs to be expanded to a typology of motion events. This view follows a well known pioneering study undertaken by Talmy (1985), which postulates three dominant types (path, manner and figure) of lexicalization patterns for motion verbs that constitute semantic domains. Path expresses the route of a motion, motion the kind of motion and figure the shape of moving objects. In addition the languages of the world can be assigned to either a verb-framed or satellite-framed type. This division is based on whether languages encode the path of motion by verbal stems or whether they express it by a secondary element, commonly a preposition or prefix.

The focus of this typological investigation of motion verbs lies in the behaviour of the encoding strategies North American languages can offer for Talmy's semantic domains. It will be demonstrated that path verbs are by far less common in North America than in other linguistic areas like Europe or Africa and that satellite-framing structures are the default type. Secondly it will be demonstrated that frequencies and occurrences of manner verbs correlate strongly with the topographic landscape, cultural features and environmental influences that languages encounter. Another correlation has been found between figure verbs and the well known phenomenon of North American West Coast languages that have been labelled as bipartite stems by DeLancey (1999). Furthermore the language data shows that additional types of motion verbs need to be established. Next to a domain of deictic verbs a domain of goal-direction has been discovered in some languages that can appear in verbs or in satellites. As far as areal typology is concerned, it will be explored how these semantic domains are distributed in geographic areas within the North American continent exceeding the barriers of language family stocks.

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Anne Tamm (University of Florence, Italy & Central European University, Hungary)
Cross-Categorial Case: focus on TAM and negation in Uralic

This contribution aims at presenting various types of cross-categorial case ('case on verbs', henceforth: CCC). This is done by establishing the category or the degree of nominalization of the case-marked base verb, the categories expressed by CCCs (*e.g.*, TAM, negation), their degree of grammaticalization, and by comparing the nominal and cross-categorial case hierarchies.

Previous scholarship has discovered 'verbal case' in several languages. For instance, Blake (2001) describes case in the verbal tense and aspect system of Kalaw Lagaw Ya. Aikhenvald (2008) discusses the 'versatile cases' of Ket and Manambu, which express aspect and modality or temporal, causal and other relationships between clauses. Analyses of more accessible languages with rich CCC systems are missing.

Uralic languages provide excellent conditions for exploring the complexity of interdependent factors: rich nominal and cross-categorial case paradigms, elaborate nominalization systems, and well-documented diachronic and synchronic variation (especially in Finnic/Permic). Integrating new data with previous scholarship and focusing on the interactions with nominalization and grammaticalization has resulted in the following insights.

Firstly, systems with CCC paradigms are complemented by rich nominal case paradigms, but the reverse does not hold (*cf.* Hungarian). The correspondences display cross-linguistic regularity although there are variations in the CCC inventories. Cases in the paradigms are not identical: *e.g.*, the Finnish abessive appears as a CCC but is infrequent as nominal case, and there are more nominal than CCCs in the examined systems. If the degree of nominalization of the base verb is higher in a system containing several possibilities on the nominalization scale, then the cross- categorial and nominal case paradigms tend to be more similar. Some cases (*e.g.*, essive) are associated with various constraints that prevent them from appearing freely with nominalizations.

Secondly, CCCs are rarely markers of a prototypical category (in TAM/negation), but tendencies in their grammaticalization are clear: *e.g.*, spatial cases tend to give rise to tense-aspect marking, comitatives to Aktionsart (intensification, habituality), abessives to negation.

Thirdly, the nominalization scale, reflecting the degree of nominalization of the base verb, plays a role in the structure of CCC hierarchies and grammaticalization. A language may contain CCCs that appear with items that are located at different parts of the nominalization scale. In Udmurt, the abessive may combine with the verb stem; many other cases combine with various nominalizations. Since CCCs tend to be related to specific functional domains, they form hierarchies that diverge from the nominal ones. The reasons for the divergence are complex, but they include sensitivity to the base verb's degree of nominalization.

Fourthly, several generalizations can be established that cover CCCs and infinitival adpositions (*e.g.*, the Indo-European prepositional infinitives). CCC systems display developments that resemble the rise of the German infinitive construction on the basis of the lative preposition (Haspelmath 1989). However, in a case system with several goal markers, the more frequent 'infinitives' are based on illative (Finnic) or translative (Selkup). The fact that abessive and translative (purposive) combine more readily with stems connects with the predictions of the frequency hierarchy established for Romance infinitives by Schulte (2007) ([purposive>abessive> temporal>concessive]). However, other well-established generalizations do not hold, *e.g.*, Finnic does not undergo a diachronic increase in the range of adverbial notions that can be expressed by means of infinitival constructions.

At the end of the day, the contribution wishes to reach a clearer definition of cross-categorial case.

Elly van Gelderen (Arizona State University)
Do languages have a basic valency?

In the typological literature, there has long been an interest in valency and in particular cross-linguistic differences in expressions of valency. It has been claimed that languages differ in basic valency orientation. Thus, Haspelmath (1993), Nichols (1993), Abraham (1997a), Nichols, Peterson & Barnes (2004), Comrie (2006), and Plank & Lahiri (2009) show that languages have a basic valency orientation that shows itself in being morphologically simpler than the non-basic one. Many of these authors (e.g. Nichols and Comrie) note a diachronic stability. However, Modern English differs markedly from its Germanic neighbors in having more ambivalent/labile and more transitive verbs. Nichols (1993) mentions that Medieval Russian has a morphological causative. If such a rule is frequent in older Russian, that causative might show that Russian has changed its typological orientation because it is now detransitivizing.

If languages differ in valency patterns, historical and typological linguists should be interested in what changes are possible. In the 19th and early 20th century handbooks (e.g. Skeat 1892, van Hamel 1931, and Prokosch 1938), there is indeed a discussion on valency, but later work tends to not say too much (e.g. Mitchell 1985). This lack of interest has only recently started to disappear, e.g. with the work by Kulikov (n.d) and Narogg (2009). Visser (1963) is an exception to ignoring valency half a century ago.

Visser (1963: 97-135), in the first volume of his monumental 4-volume work, argues in some detail that there is a decrease in the number of intransitive verbs towards Modern English. The Old English intransitives that Visser lists are both unergative and unaccusative in the well-known Perlmutter (1978) sense. In Modern English, mainly unaccusatives remain of that group of intransitives. There is also quite an increase in ambivalent (or labile) verbs that show no transitivity difference (e.g. *boil, dry, burn*). Mustanoja (1960: 429-30), to the contrary, sees a "tendency to develop intransitive functions for transitive verbs" and blames that partly on "the inherent aversion of English speakers to the reflexive form".

I argue that Old English has a causativizing affix as well as a transitivizing one. Due to the loss of these affixes, unaccusatives alternate as causatives and unergative verbs end up doing 'double' duty as transitives and unergatives. This results in an increase in labile verbs and a loss of unergatives. I also claim that changes happen in how the Theme is licensed but that, contrary to e.g. Mustanoja's views, not much happens with reflexive verbs except that pronouns stopped being used reflexively. The paper thus has two main goals: (a) to see if we can find the basic valency of Old English (by proposing tables as in Nichols et al 2006) and if such a question makes sense cross- linguistically, and (b) to describe changes in the argument structure in the history of English and relate them to those in the other Germanic languages.

Eva van Lier (Lancaster University)
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Alena Witzlack-Makarevich (University of Zurich)
Alignment typology in three-participant constructions

Alignment splits of case or agreement marking can be conditioned by many different types of factors, including lexical, inherent semantic, and fluid semantic. These factors may relate to (i) properties of the verb, e.g. predicate class or aspect, or (ii) to referential properties of argument(s), e.g. animacy and/or definiteness, or (iii) to the relationship between the verb and its argument(s), in terms of semantic roles and affectedness.

Several studies of alignment splits in intransitive and transitive constructions try to identify the intricate relations between these various factors, within and across languages (Donohue & Wichmann 2008, Klein & De Swart 2011, Von Heusinger & Kaiser fc.). Other studies draw attention to the differential effects of the various factors on systems of agreement as opposed to case marking (Siewierska 2004, Bickel 2010).

In this study we investigate the implications of these recent advances in alignment theory and typology for three-participant constructions. It has been established by now that there are ditransitive counterparts of the basic alignment patterns in monotransitives (Siewierska 2003, Haspelmath 2005). However, observations vary as to the relative importance of various conditioning factors and in particular their influence on the alignment of case versus agreement. Some authors claim that referential prominence of arguments mostly affects agreement, while case marking would be more sensitive to semantic roles (Dryer 1986, Haspelmath 2005, Siewierska 2004). Others rather discuss case marking in terms of referential factors such as animacy (Kittilä 2008). In addition, the importance of lexical factors is generally acknowledged, but not yet widely studied (Malchukov et al. 2010+).

This paper presents a typology of alignment in three-participant constructions, based on 60 languages. Among other things, we will show that the lexical properties of the verb, including predicate class and lexical aspect, are most strongly reflected in splits of case and adposition marking, rather than agreement. More generally, our approach takes into account the relative effects of all the alignment-conditioning factors listed above.

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Sarah d'Hertefelt (University of Leuven)
A semantic typology of complement insubordination

This paper is a typological study of the semantics of complement insubordination (Evans 2007), i.e. the independent use of structures that are formally marked as subordinate complement clauses, as in (1), with complementizer *dat*, and (2), with a deverbal noun. The analysis is based on a combination of a cross-linguistic study of a sample of 30 languages and a corpus study of 4 Germanic languages. The first set of data allows us to analyse which semantic features recur cross-linguistically, thus contributing to our knowledge of a little-studied construction type at the interface between syntax and pragmatics. The second set of data allows us to show how even closely related languages can make quite different choices within this semantic range, which confirms that the development of insubordination is fundamentally a matter of conventionalization (Evans 2007), in spite of the relevance of general pragmatic principles (e.g. politeness theory).

(1) ***dat*** *iedereen* *eens* *in* *eigen* *boezem* *kijkt*
COMPL everyone PRT in own bosom looks
'Everyone has to search one's own heart' (Dutch, Germanic)

(2) di-ha ongiri ek'wa=b č'alʕa-**n!**
I-OBL.DAT here be=PTCP.N feed.up-**MSD**
'How fed up I am with all that here!' (Bagwalal, Nakh-Daghestanian, Kalinina and Sumbatova 2007: 220)

The first part of the study focuses on the semantic range of complement insubordination, showing that cross-linguistically recurrent categories in the sample are deontic, evaluative, and discourse-organizing functions. This corresponds to the basic range in the typology of insubordination in Evans (2007), but we propose to refine this in two ways. First, we identify a number of specific features that recur within each of these categories, which distinguish complement insubordination from more standard expression types in the same domain (e.g. modal markers in the deontic domain). For instance, we identify secondary parameters like the expectedness of the event for evaluative categories, and control and polarity switches for deontic categories. Second, we also try to propose a schematic generalization over these different uses, arguing that the independent use of a complement clause invokes presuppositions that derive from the subordinate constructions in which they originate, and are absent from standard types of deontic, evaluative or discourse-organizing marking.

In a second step, we look at how and why languages differ in the features they pick out from this semantic range. For the cross-linguistic sample, we compare the insubordinated constructions with their subordinate counterparts, to determine possible paths of development (following Evans 2007). Although it is possible to come up with plausible paths, language-by-language comparison shows that the presence of specific subordinate types (e.g. with verbs of wishing) does not in itself guarantee the presence of specific semantic categories of insubordination (e.g. uncontrolled deontic types). This tendency is confirmed even more strongly by the Germanic corpus study, where closely related languages like German and Dutch make very different choices, e.g. in the deontic domain. Both of these observations suggest that processes of conventionalization are crucial, and that origins in pragmatic processes do not guarantee the same semantic range on a language-by-language basis.

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Daniel Van Olmen (University of Antwerp)

Imperative attention-getters: saying, seeing and hearing

It has been pointed by many a linguist–most recently, by Aikhenvald (2010: 246) in her monograph on imperatives and commands in the world's languages–that "frequently used imperative forms develop into discourse markers." For the function of what can roughly be called attention-getting, the imperatives of saying and those of visual and auditory perception are on the top of the list of possible sources. They are illustrated in (1) to (3), respectively.

(1) Dutch (De Vriendt 1995: 156)

Zeg,	Nat.	Hoe	weten	we	dat	dit	het	goede	huis	is?
say.IMP	Nat	how	know.PRES.PL	we	that	this	the	right	house	be.3SG

'Say, Nat. How do we know that this is the right house?'

(2) Armenian (Kozintseva 2001: 255)

Hama	*tes,*	*Arus,*	*aṙevtri*	*meǰ*	*mist*	*petk'$_1$ē$_2$*
but	look.IMP.2SG	Arus	trade.DAT	in	always	need.PRES.3SG$_{1,2}$
zgast	*linel.*					
on.alert	be					

'But look, Arus, in commerce you must watch out all the time.'

(3) French (Dostie 2004: 212)

Écoutez,!	*Ça*	*suffit!*	*Laissez-*	*moi*	*parler!*
listen.IMP.PL	that	be.enough.PRES.3SG	let.IMP.PL	me	talk.INF

'Listen! That's enough! Let me talk!'

The comparison in Bergs (2003: 8) suggests that 'look' or 'see' is "the cross-linguistically most common form, followed by 'say' and finally by 'hear'." But this conclusion is based on only six languages, all of which belong to the Indo-European family (Greek, two Germanic and three Romance languages). The starting point of the present paper is to examine the potential use of the imperative as an attention-getter in as many languages as possible from as many families as possible (due the uneven distribution of the information, a geographically and ge- netically balanced sample is not feasible).

The examination shows that imperative attention-getters are far from being a characteristic of Indo-European alone. They are also attested in, for instance, Afro-Asiatic (e.g. Arabic) and Altaic (e.g. Shor). The data do indicate that the claim in Bergs (2003) is not valid from a typological point of view. On the one hand, the imperative of saying does not occur less often than the imperatives of perception. On the other hand, the imperative of seeing is not more popular than the imperative of hearing. In the better described languages, however, the latter tends to be linked to attention-getting only while the former is typically said to function as a discourse marker as well. Finnish is a case in point: "As a derivative particle, *kuule* ['listen', unlike *kato* 'look',] has only acquired the interpersonal interpretation of appealing to the listener: it has (as yet) no discernable textual usage" (Hakulinen & Seppänen 1992: 547). It is the contention of this paper that these observations about the imperative of seeing, which–in light of its lexical meaning–might be regarded as a less direct way of getting the hearer to pay attention to what the speaker is saying, can be explained by the widespread association of vision with cognition, as shown by Sweetser (1993). In the same vein, the cross-linguistic success of the imperative of hearing is argued to constitute (indirect) supporting evidence for the equally common association of auditory perception with cognition, as shown by Evans & Wilkins (2000) and Vanhove (2008) among others.

Marlou van Rijn (University of Amsterdam)
Phrasal alignment in Functional Discourse Grammar. a typological study

So far, alignment is mostly studied as the morphosyntactic marking of arguments of a clause. In this study, we start from the observation that alignment is also relevant to units of a phrase since arguments can be licensed by both verbs and nouns (Mackenzie 1983). On the basis of Mackenzie's analysis, a careful distinction is made in Functional Discourse Grammar (henceforth FDG, Hengeveld & Mackenzie (2008)) between two kinds of dependency relations. These are nucleus-dependent relations, also called predicate-argument relations, on the one hand, and head-modifier relations on the other. The distinction is unique in the typological literature to date: units within phrases are traditionally analyzed as involving general head-dependent relations (Nichols 1986, 1992).

The current paper focuses on the extent to which languages vary in their alignment of head-modifier versus nucleus-dependent relations. It deals with the alignment of units within three types of constituent classes, i.e. modifiers within phrases (e.g. 'the woman' aligned with clitic =s in 'the woman's dog'), arguments within phrases (e.g. 'the woman' juxtaposed to the preposition in 'near the woman'), and arguments within clauses (e.g. 'the woman' triggering person marker –s on the verbal predicate in 'The woman walks.'). The aim of this paper is to present a typological classification of alignment types and discuss their distribution. It is hypothesized that one logically possible alignment type will not be attested, i.e. one in which modifiers within phrases are aligned in the same way as arguments within clauses, while arguments within phrases are aligned differently.

For this study, a 26-language sample was drawn by means of the method developed by Rijkhoff et al. (1993, Rijkhoff & Bakker 2008). Ten types of constituents were investigated in each language. Three involve typical phrasal head-modifier relations, i.e. alienable possessed noun-nominal possessor, noun-attributive adjective, and verb-manner adverb. Two concern typical phrasal nucleus-dependent relations, e.g. inalienable possessed noun-nominal possessor and adposition-noun. Five concern typical clausal nucleus-dependent relations, i.e. the core arguments of one-, two- and three-place predicates (actor, undergoer and recipient).

Five main alignment types are observed in the data. The first type is characterized by the identical treatment of constituents from all three constituent classes, i.e. phrasal modifiers, phrasal arguments and clausal arguments. In languages of the second type modifiers are aligned differently from arguments (whether phrasal or clausal), i.e. the phrase-clause distinction is neutralized. Languages of the third type align units within clauses differently from units within phrases (whether modifiers or arguments), i.e. they neutralize the modifier-argument distinction. The fourth alignment type shows both kinds of neutralizations, and the fifth type involves a different treatment for each of the three constituent classes.

The data confirms the main hypothesis: if modifiers within phrases are aligned similarly to arguments within clauses, arguments within phrases must receive the same treatment. This outcome provides strong support for the twofold distinction in dependency relations made by FDG, and the relevance of this distinction in phrasal alignment across the world's languages.

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Mark Van de Velde (CNRS, Paris)

Dependency reversal as an areal phenomenon in northern sub-Saharan Africa

Many languages in the central part of northern sub-Saharan Africa use constructions of the type that Malchukov (2000) calls *dependency reversal in noun attribute constructions* (DRNA) as the only or most usual way to express adnominal qualification. In such constructions, the semantic head is construed as a syntactic dependent of the quality denoting element, as illustrated in (1).

(1) Mundani (Niger-Congo, Grassfields; Cameroon) (Parker 1989:162)
n-dên té-b-òt
9-old IX.GEN-2-persons
'old people'

DRNA constructions have been identified in the Oceanic languages of northwest Melanesia (Ross 1998), in some Tungusic languages, in Aleut, Chinook and Latin (Malchukov 2000), but overall they are typologically unusual. In northern sub-Saharan Africa, however, languages of the three macrofamilies of the area, viz. Niger-Congo, Nilo-Saharan and Afro-Asiatic, frequently have a DRNA pattern as their main qualifying construction. Thus, DRNA may turn out to be one of the defining features of the tentative Sprachbund that Güldemann (2008) calls the *Macro- Sudan Belt.*

This paper provides:
1) a comparative definition of DRNA, that distinguishes it from more widespread idiomatic constructions such as English *that crook of a servant*
2) a description of the exact areal distribution of DRNA in Africa
3) a typology of DRNA constructions in this area
4) a discussion of how DRNA may have arisen and spread

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Johan van der Auwera (University of Antwerp)
Lauren van Alsenoy (University of Antwerp)
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On the relation between double clausal negation and negative concord

When the combination of a clausal negator with a negative indefinite expresses a single negation, as in Russian (1), one speaks about 'negative concord' ('NC'). Under the assumption that the occurrence of *rien* in (1b) means 'nothing' and is thus inherently negative, (1) also illustrates negative concord.

(1)	Ja	nikogo	ne	znaju.	(2)	Je	ne	dis	rien.
	I	nobody	NEG	know		I	NEG	say	nothing
	'I know nobody'.'					'I say nothing.			

'Double clausal negation' ('DN') is a term that can be used for the expression of clausal negation with two clausal markers (French *ne ... pas* 'not'), a construction commonly considered to be an intermediate stage of the so-called 'Jespersen cycle'.

(3)	Je	ne	sais	pas	pourquoi.
	I	NEG	know	NEG	why
	'I don't know why.'				

These constructions are similar in that one semantic negation is expressed with two exponents. Languages may also undo the double exponency in similar ways, a process considered to be the final stage of the 'Jespersen cycle' in the case of DN. Thus colloquial spoken French drops the *ne* in both NC (2) and in DN (3). In the Russian NC construction (1), however, *ne* cannot be dropped.

(4) Je dis rien (5) Je sais pas pourquoi. (6) *Je nikogo znaju.

While it is clear that NC and DN are related, the exact nature of the relation is disputed. In the classic study on the typology of indefiniteness, including negative indefiniteness (Haspelmath 1997: 204, 212), primacy of place goes to the DN type: the reason why *ne ... rien* can turn to *rien* is that *ne ... pas* can turn to *pas*, and therefore *nikogo ne* will not turn to *nikogo*, as Russian has nothing that corresponds to *ne ... pas*. In the most recent typological study on negation, including negative indefiniteness (De Swart 2010), primacy of place goes to NC: De Swart (2010: 184) argues that no language will have DN if it does not also have NC. Both studies are primarily based on European languages and they furthermore both claim, though not quite in the same way, that NC is relatively widespread. De Swart (2010: 98) furthermore claims that DN is relatively rare, an impression one could also get from the fact that Haspelmath's DN examples are all European.

On the basis of ongoing worldwide typological work on negation and negative indefiniteness, which has so far dealt with reasonably comprehensive data for Europe, Bantu Africa, Southeast Asia and Oceania, it will be argued that (i) the relative frequency claims are wrong or at least misguided: it is NC that is relatively rare and DN that is relatively widespread, (ii) not surprisingly therefore, the existence of DN is not dependent on that of NC, and (iii) the Haspelmath claim that the undoing of negative concord is the result of a Jespersen cycle stands undisputed. These claims will be illustrated with quantitative and qualitative data on the patterns of clausal negation and negative indefinites from Bantu Africa, Southeast Asia and Oceania.

Johan van der Auwera (University of Antwerp)
Volker Gast (Friedrich Schiller University of Jena)
A typology of human impersonal pronouns: towards a semantic map

In using the term 'human impersonal pronoun' ('HIP') we refer to elements such as Germ. *man* and Fr. *on*, which are used for reference to groups of unspecific individuals as illustrated in (1) and (2), respectively.

(1) *Man lebt nur einmal.*
HIP lives only once
'You/one only live(s) once.'

(2) *On vit seulement une fois.*
HIP lives only one time
'You/one only live(s) once.'

While Germ. *man* and Fr. *on* are rather specialized for human impersonal reference and are widely distributed in this domain, other pronouns may primarily serve in other domains and cover only part of the functional range of HIPs. For instance, in modal and generic contexts Engl. regularly uses *you* or *one* as translational equivalents of Germ. *man* and Fr. *on* (cf. [1] and [2]). Second person pronouns are also regularly used in Mandarin Chinese for impersonal reference (cf. [3]). In specific (e.g. episodic) contexts, third person plural pronouns (e.g. English *they*) are often used, or zero pronouns in combination with a third person plural form of the verb (cf. the Russian example in [4]).

(3) *Ni bu haohao ganhuo rang ni qiong xiaqu.*
You not well work let you poor down
'(They say): "(Since/if) you don't work hard, (we'll let) you stay poor."'

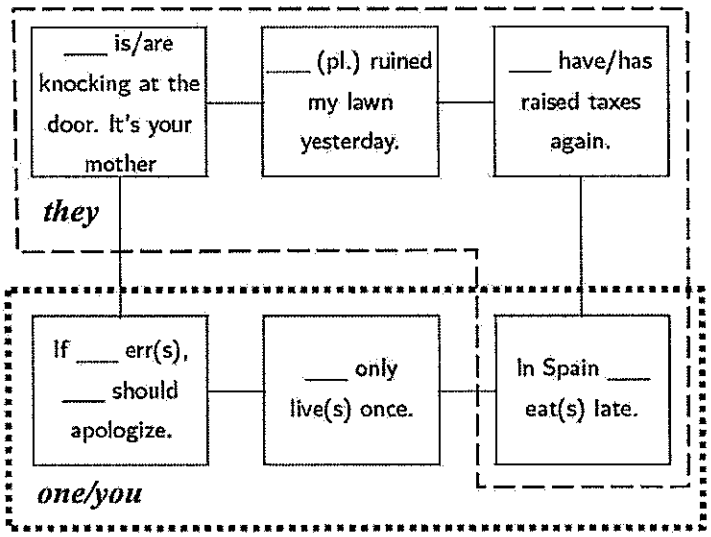
(4) *Ø povysi-li nalogi.*
pro raise-PL.PAST taxes
'They've raised taxes.'

The question arises what determines the distribution of human impersonal pronouns, and how the contexts licensing specific types of pronouns or strategies can be characterized. We will address this question by proposing a semantic map whose nodes are defined in terms of two groups of semantic features: (a) properties of the sentential environment, and (b) parameters of pronominal reference. At least two context features are relevant, (i) episodic vs. generic, and (ii) modal vs. non-modal. On this basis, contexts like the following can be distinguished:

(5) *They/*you/*one are/is knocking at the door.* (episodic, non-modal)
(6) *One/you/*they only live(s) once.* (generic, non-modal)
(7) *If one/you/*they err(s), one/you/*they should be willing to apologize.* (generic, modal)

The type of reference may be definite, as in *They've raised taxes again*, as well as indefinite, as in *They stole my bike yesterday*, and it may vary in terms of number specifications (e.g. *They're knocking at the door* is not necessarily plural). Moreover, the speaker may be included (*You only live once*) or excluded (*In Spain they eat late*).

We will test our semantic map with results from detailed investigations of a dozen European languages, including quantitative (corpus-based) studies. The diagram on the left shows the distribution of relevant English pronouns within the domain of impersonal human reference (contexts are represented by typical diagnostic sentences). Less detailed argumentation will relate to a more varied sample of another dozen of languages from all parts of the world.



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Annemarie Verkerk (Max Planck Institute for Psycholinguistics)
Time travelling to Wonderland: diversity in motion event encoding

One of the fundamental elements of human experience that can be expressed in language is motion. We can talk about motion events like 'diving into the sea' or 'running out of the forest' in every language. However, languages differ in their ways of encoding semantic aspects of the motion event. In Spanish, for instance, the path of movement is typically indicated by the verb, while in English, manner of movement is typically expressed on the verb while path is expressed with particles. Because of these different patterns of encoding Talmy (1991), in his typology of motion events, calls Portuguese verb-framed and English satellite-framed. An example is presented below.

English original (Through the Looking Glass and what Alice found there, by Lewis Carroll):

... and then the Knight	**rode slowly**	**away into the forest.**
	MANNER	PATH

Portuguese translation:

e o	**Cavaleiro**	**afastouse,**		
and DEF.ART.M.SG	knight.M	move.away.IND.PFV.3SG-REFL		
		PATH		
cavalgando	**lentamente**	**pela**	**floresta.**	
ride.horseback.PRS.PTCP	slow.F-ADV	through-DEF.ART.F.SG	forest.F	
MANNER				

However, we have little knowledge about the diachronic factors that have shaped the current distribution of diversity of motion event encoding. In this paper I will investigate the evolution of motion event encoding using a parallel corpus of translated motion events from three literary works: *Alice's adventures in Wonderland* and *Through the Looking Glass and what Alice found there*, both by Lewis Carroll, and *O Alquimista* by Paulo Coelho. Included in this corpus are fourteen Indo-European languages (English, Dutch, German, Portuguese, French, Russian, Polish, Lithuanian, Irish, Greek, Armenian, Albanian, Hindi and Farsi). This material allows us to establish some measure of comparison between the languages and to have a quantitative, fine-grained perspective on motion events at the same time. On the basis of this parallel corpus I will present results of a quantitative test in which I analyze whether phylogenetic, geographic, or random explanations provide the best account for the current distribution pattern of encoding strategies in these languages. This will contribute to a better understanding of diachronic change in motion event encoding and, more generally, the syntax-semantics interface.

The second question that will feature in this paper is 'How can typologies deal with diversity?' In recent papers, various researchers have proposed that we should not characterize languages as strictly satellite-framed or verb-framed, but we should try to account for the fact that many languages have aspects of multiple systems (see for an overview Beavers et al., 2010, see also Croft et al., to appear). Kopecka (2006), for instance, shows how French, which is typically characterized as verb-framed, makes use of a pattern that encodes the path of motion in satellites, rather than in the verb. Aside from looking at diachronic processes, we should also aim to produce a multivariate account for synchronic language-internal variation within the motion event typology. Some initial pointers on how we can do this within the motion domain will be discussed.

Ljuba Veselinova (Stockholm University, Sweden)
The negative existential cycle revisited

The term **Standard Negation** (hereafter **SN**) refers to the negation of simple indicative sentences with an overt verb predicate as in *Mary doesn't sing* (Dahl 1979; Miestamo 2003/2005). Sentences such as (i) *Mary is not a nurse* (hereafter a **non-verbal sentence**) and (ii) *There are no wild cats* (hereafter **existential sentence**) are excluded from the domain of SN because in many languages they are negated by a strategy different from SN. The negators used in such clauses are referred to as **special negators**. The focus of this paper is the development of such special negators and their interaction with standard negation. The material used in this investigation is based on a family-oriented sample of 14 Slavonic languages and 18 Polynesian languages. Such a sample was chosen in order to be able to test the model proposed in Croft (1991) based on historical-comparative data. The results obtained from the family-based sample are compared to frequencies for standard and special negators obtained from a balanced 95 language sample with a world-wide coverage.

Languages may use different negators for (i) and (ii) as illustrated by Serbo-Croatian in (1) and (2) below. Both types are widely attested cross-linguistically, with the existential negators being extremely common while non-verbal negators showing a tendency to be more localized, areal phenomena. Both of these tendencies are confirmed by Slavonic and Polynesian. Polynesian languages are well known for a typologically rather unusual feature, namely for employing complex clause structures for the expression of SN as illustrated by Tongan in (6)a.

This study outlines the processes whereby special negators in these families evolved, the course of their spread to the existential constructions and also, in some cases, to domains of standard negation (cf. (3)-(6) Bulgarian and Tongan). Other lexicalizations of negation and their role in standard negation are also presented. Finally, the diachronic model of the evolution of negation offered in (Croft 1991) is discussed and expanded based on comparative data. The model as laid out by Croft puts forth a hypothesis about the evolution of SN from special existential negators as they gradually expand their use into negating verbs. The current study contributes to the model as follows. First, it is suggested that lexicalization and reanalysis of specially negated lexical items should be part of the model as they are also sources for SN cf. Serbo-Croatian *neću* 'not want'< *ne* 'SN' + *hoću* 'want' > SN for future tense. Second, the role of constructional strength, language specific properties of the special existential and SN need to be brought in when we seek to outline the process/processes whereby existential negators evolve into SN markers. The evidence from Slavonic does not corroborate the model in its current form as the use of the existential negator we observe in Bulgarian and Macedonian today is not a result of expansion of the existential negator but rather an inherited negated future construction from Old Church Slavonic. So with Slavonic, it is the strength of a construction that leads to the situation we see today. On the other hand, the evidence from Polynesian languages provides confirmation for the development suggested by Croft. As already pointed out, SN in Polynesian is frequently in the form of a complex clause. SN markers in Polynesian are lexically very diverse; it is generally impossible to reconstruct a common Proto-Polynesian source for them. However, at least some of them can be successfully shown to go back to a verb meaning 'lack' or a negative existential. Both cross-linguistic and comparative evidence suggest that negative existentials easily acquire phrasal properties on their own and start being used as pro-sentences, sentence particles and clause external negators. Through such uses they evolve into the higher verbs we see used as SN markers in modern Polynesian languages. Thus in Polynesian, it is the characteristics of negative existentials together with family specific syntax structures that lead to the evolution outlined by Croft (1991).

EXAMPLES

(1) Serbo-Croatian (South Slavonic), (Sonja Petrović Lundberg p.c.): non-verbal negator, in the present tense *nije*

Tom *nije* *nastavnik, on* *je* *lekar*
Tom is.not teacher, he is physician
'Tom is not a teacher, he is a physician'

(2) Serbo-Croatian (South Slavonic), (Sonja Petrović Lundberg p.c.): existential negator, in the present tense *nema*

a. *Ima* *divl-jih* *mač-aka*
have.3.SG.PRES wild-GEN.PL cat-GEN.PL
'There are wild cats'

b. *Nema* *divl-jih* *mač-aka*
Not-have.3.SG.PRES wild-GEN.PL cat-GEN.PL
'There aren't any wild cats'

(3) Bulgarian (South Slavonic), (Maria Avgustinova, p.c.): standard negator, non-future *ne*

a. Maria pee
Maria sing.3.SG.PRES
'Maria sings'

b. Maria ne pee
Maria NEG sing.3.SG.PRES
'Maria does not sing'

(4) Bulgarian (South Slavonic), (Maria Avgustinova, p.c.): existential negator *njama*

a. *Ima* *div-i* *kotk-i*
have.3.SG.PRES wild-PL cat-PL
'There are wild cats'

b. *Njama* *div-i* *kotk-i*
Not-have.3.SG.PRES wild-PL cat-PL
'There aren't any wild cats'

(5) Bulgarian (South Slavonic), (Maria Avgustinova, p.c.): standard negator, future: *njama*

a. *Maria* *shte* *pee*
Maria FUT Sing.3.SG.PRES
'Maria will sing'

b. *Maria* *njama* *da* *pee*
Maria not-have.3.SG.PRES to sing.3.SG.PRES
'Maria will not sing'

(6) Tongan (Austronesian, Malayo-Polynesian, Remote Polynesian, Polynesian, Tongic), (Broschart 1999: 96): SN is expressed by a complex clause where the negation marker is a higher predicate. The negation of non- verbal and existential clauses is expressed by simple clauses

a. *Na'e* *'ikai* *ke* *kata* *'a* *Pita*
PAST NEG SUB laugh ABS Pita
'Pita did not laugh' ([it] was not that Pita laugh[ed])

b. *Ko* *e* *tangata*
PR ART man
'(it is) a man'

c. *'oku* *'ikai* *ko* *ha* *faiako* *'a* *Pita*
PRES:IMPF NEG PR NSP teacher ABS Pita
'Pita is not a teacher'

d. 'oku 'i ai ha me'a
PRES:IMPF LOC there NSP thing
'there is something/someone'
e. 'oku 'ikai ha me'a
PRES:IMPF NEG NSP thing
'there is not anything'

ABBREVIATIONS

ABS	absolutive	GEN	genitive	NSP	non-specific	PRES	present tense
ART	article	IMPF	imperfective	PL	plural	SG	singular
FUT	future	NEG	negator	PR	presentative	SUB	subordinator

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Frens Vossen (University of Antwerp)
The Jespersen cycle in South East Asia and Oceanic

Since Dahl (1997) the term 'Jespersen Cycle' is commonly used to refer to a process in which a clausal negator is accompanied by an element which acquires negative meaning and eventually takes over as the sole clausal negator. The reference in the label is to Jeespersen (1917) and the most often cited illustration comes from French, and just *pas* in colloquial spoken French. The process is a universal in the sense that it can, in principle, occur everywhere, but in fact it doesn't, yet when it occurs if often seems to be contagious accros family boundaries and the details can differ significantly from the ones illustrated with French. Up to now, the process is documented best for Western Europe (including its postcolonial language, such as Afrikaans), less well for the southern Mediterranean (both the ancient area with Egyptian, and the modern one with Arabic and Berber), and now also for Sub-Saharan Africa (especially Bantu). Yet suggestions for the occurrence of a Jespersen cycle have also appeared for South East Asia and Oceania, most prominently perhaps for Nothern Vanuatu with Early (1994a, b) and François (2003). The present survey reports on the whole of South East Asia and Oceania and claims that there are at least three 'Jespersen cluesters'. The paper focuses on what is peculiar about these Asian and Oceanic manifestations and hence relevant for a general understanding of the process.

The first cluster inclues North Vanuatu and the Solomon Islands. The best described languages are Motlaw, Nese, Paamese, and Lewo. What they teach us about the general properties of Jespersen cycles is that clausal negators may come from a reanalysis of positive copulas and partitive markers and they confirm what has been insufficiently appreciated as truly belonging to the essence of a Jespersen cycle, viz., that the third stage of the cycle need not constitute to a single negator but instead an enrichment with a third negator.

A second cluster involves some Kiranti languages of Eastern Nepal. Doubling occurs in many of them but in some it happens through a repetition of the first negator (e.g. Athpare, Belhare). This is similar to what we know from Africaans, Brabantic Dutch, Northern Italian or Brazilian Portuguese, but it is different as well, for the doubling happens with an affix instead of a free standing gram.

A third cluster is found is South Vietnam, where one finds a Jespersen pattern both in Chamic (Austronesian) languages such as Jarai and Roglai (Lee 1996) and in Bahnaric (Mon-Khmer) languages such as Rengao, Central Mnong and Chrau. The contact situation facts confirm that Jespersen cysles are contagious but what we didn't know from Europe or Africa yet is that what is most contagious in the Jespersen cycle is the new, typically emphatic strengthener, not the original negator.

Bernhard Wälchli (University of Bern / University of Stockholm)
Toward a more comprehensive typology of resultative constructions

This paper explores resultative constructions in the sense of "verb forms that express a state implying a previous event" (Nedjalkov & Jaxontov 1988: 6) in the languages of the world with special reference to the more general question of dynamic expression of states, viz. Talmy's [2000: 101] claim that fictive motion "occurs preponderantly more than does fictive stationariness coupled with factive motion". In grammaticalization studies, resultatives are a well-known frequent source for major voice and tense- aspect categories, such as perfect, stative, and passive. Even though the literature draws on a large number of languages, there is a rather restricted notion of resultatives shaped on the model of Indo-European. According to Bybee et al. (1994: 67-68) "in the most common case, the resultative sense is the outcome of the combination of the stative auxiliary...and the past and/or passive participle". On the basis of a picture questionnaire study on positional states with a convenience sample of 74 languages and data from reference grammars and original texts from languages of all continents in 40 languages, this paper shows that resultative constructions exhibit a much higher degree of diversity. In Mòoré (1), e.g., the resultative construal only consists in the choice of an active transitive verb in an intransitive construction. A general finding is that resultatives can be expressed by any construction type that can grammaticalize into a passive (causative, impersonal, middle). According to Bybee et al. (1994) resultatives grammaticalize to perfects and not the other way round. However, perfect constructions can also be used to express resultative construals in languages where they do not originate from resultatives. For instance, the Swahili perfect *-me-* (< *mala* 'complete'; Meinhof 1948: 113) has a completive, not a resultative origin, but is also used to express results.

The paper further investigates the areality of resultatives on the basis of frequency in the questionnaire answers, on the one hand (Map 1), and structural patterns, such as the use of multi-verb constructions with a second verb 'put' in East and South Asia, on the other hand. Particular reference is made to the diversity of resultative constructions in languages of New Guinea based on material from reference grammars.

Finally, the paper explores to what extent resultative constructions might be universal in the context of the "dynamic expression of states" hypothesis. For this aim a small number of different languages with particular low propensity for resultative construals are considered in detail.

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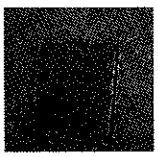
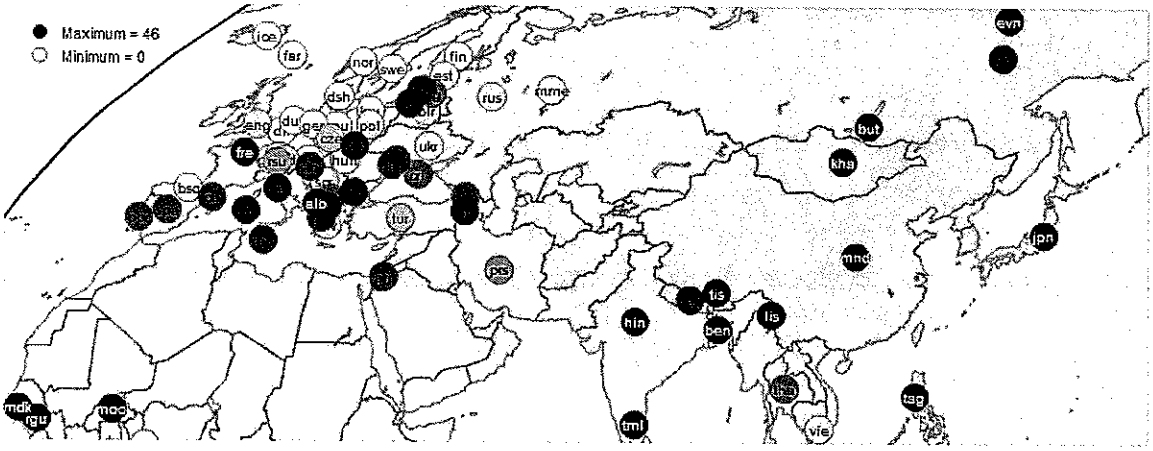


(1) Mòoré (Niger-Congo, Gur)
sebrã**ka**-a roogã zugu
sheet **nail[PFV]**-IND house on
'The paper is nailed to the wall', literally "The sheet nails on the house."

Map 1: Frequency of resultatives in positional states in answers to a picture questionnaire



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Beyond "basic types": accounting for the full variation in alignment typology

Introduction Alignment – i.e. the way argument roles are treated alike – is central to the characterization of case (and other) systems for both descriptive and comparative purposes, but it has long been noted that case alignment can be subject to condi- tions. These are of two types: (i) 'Global' conditions such as tense values of clauses apply equally to all argument roles and allow straightforward definitions of subsystems of alignment (e.g. ergative in the past, neutral in the non-past); (ii) 'local conditions' apply only to a subset of argument roles, e.g. case assignment may be different for dif- ferent types of predicates ('valency classes'), or it may depend on the presence of certain co-arguments ('role scenarios'). Under local conditions, argument roles cannot be com- pared directly in order to determine alignments. For instance, the case marking of a third person P argument in Kolyma Yukaghir is conditioned by the nature of its A co- argument (1>3 vs. 3>3 scenarios; 1a-b), whereas the marking of the S argument cannot be conditioned in this way.[2] Similarly, valency class conditions for S are different from valency class conditions for A and P (cf. 1c-d). As result, it is not clear which S argument can be compared to which A and P arguments: those in 1>3 or in 3>3 scenarios? those in the A_{NOM} $P_{ACC/NOM}$ (1a-b) or those in the A_{NOM} P_{LOC} (1d) valency class?

In the domain of co-argument conditioned case marking, it has been proposed to ex- tend the basic taxonomy of alignment types with additional types, such as hierarchical alignment (Mallinson and Blake 1981, Nichols 1992). In the domain of class-conditioned case marking, typologies tend to ignore the problem and instead work with a notion of an *a priori* defined prototype class (e.g. the class including verbs of hitting for transitives). Both these solutions result in an artificial reduction of the true variation, miss interesting distributional patterns, and obscure the original concept of alignment (Bickel 1995; Zúñiga 2007; Bickel and Nichols 2009; Creissels 2009).

Methods We define the generalized argument roles S, A, P, T, and G by exclusively semantic criteria, following Dowty (1991) and Primus (1999). Following Bickel (2010), these roles are in addition indexed for both global and local conditions, including reference to specific valency classes and co-argument conditions (scenarios). We then com- pare all possible argument roles across all scenarios and valency classes attested under a given global condition in a language and then compute the frequencies of alignment types found across all these comparisons. For example, limiting our attention to S, A, and P in Kolyma Yukaghir, we compare 3S (3rd person S) with 3A&3P in the A_{NOM} $P_{ACC/NOM}$ valency class, with 3A&3P in the A_{NOM} P_{LOC} class, with 3A&1P in the A_{NOM} $P_{ACC/NOM}$ class etc.

Results and conclusion Doing this for all logically possible comparisons, we find 37% tripartite, 24% accusative, 18% horizontal, 12% ergative, and 9% neutral alignment in Kolyma Yukaghir. We show for a sample of 120 languages that such distributions cannot be reliably estimated by classical approaches assuming hierarchical alignment and *a priori* defined prototypes. This calls into question the empirical adequacy of earlier approaches and suggest that they underestimated the true variation.

[2] For the sake of illustration, we consider only what is called non-focused forms.

Examples

(1) Kolyma Yukaghir (isolate; Siberia)

a. 1 > 3 ($A_{NOM}P_{ACC/NOM}$ valency class)
met *tolow* *kudede.*
I.NOM deer.NOM kill.TR.1s
'I killed a deer.' (Maslova 2003:10)

b. 3 > 3 ($A_{NOM}P_{ACC/NOM}$ valency class)
met *es'ie* *tet* ***pulut-kele*** *kudede-m.*
my father.NOM your husband-**ACC** kill-TR.3s
'My father has killed your husband.' (Maslova 2003:89)

c. one-argument valency class assigning locative case (S_{LOC})
i:le-ben-ge *ped-ek* *eru:-l.*
some-RELNR-**LOC** it-PRED bad-SF
'Some felt bad.' (Maslova 2003:360)

d. two-argument valency class assigning nominative and locative ($A_{NOM}P_{LOC}$)
numö-ge *ög-i*
house-**LOC** enter-INTR.3s
'He entered the house.' (Maslova 2003:355)

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Verbal and nominal pathways in the development of 'SAY' as a sentence final particle

This paper examines the development of 'say' verbs beyond its quotative function, in particular its development into a sentence final particle. We highlight two types of pathways, namely the 'verbal route' and the 'nominal route', the former illustrated by Sinitic languages and the latter by Korean.

Numerous studies have identified the semantic extensions of 'say' verbs into complementizers (e.g. Lord 1976; Klamer 2000). This is illustrated in (1) and (2), where the Cantonese verb *waa* 'say' is reanalyzed as a complementizer following another 'say' verb (e.g. *kong*) or a perception/mental verb (e.g. *teng* 'hear'/*soeng* 'think') (see Chui 1994 and Yeung 2006 for Cantonese; Simpson & Wu 2002 for Taiwanese; Wang, Katz & Chen 2003 for Mandarin). It has also been observed that the quotative verbs in these Sinitic languages have also developed into sentence final particles. For example, Cantonese *waa* in sentence final position can have the pragmatic effect of seeking the repetition of some word/phrase uttered by the previous speaker (Chui 1994), as in (3).

Simpson and Wu (2002) have suggested, based on evidence from tone sandhi, that the sentence final Taiwanese *kong* (and possibly other Sinitic 'say' particles) emerged via COMP-to-SPEC raising (i.e. the complement clause is raised to the specifier position of CP, as in (4a-c), where 'say' is already a stance particle conveying speaker mood, as a result of V-to-C raising as seen in (4a-b). That the utterance-initial 'say' particle in (4a) is already a pragmatic particle with evidential stance is supported by crosslinguistic functional cognitive studies (*a la* Thompson & Mulac 1991), as illustrated in (5).

COMP-to-Spec raising is highly productive in Sinitic languages, giving rise to numerous sentence final particles (e.g. Lin 2008). This productivity, we suggest, is facilitated by the high frequency of null subjects in Chinese, an option not as readily available in English. Essentially, subject elision in Chinese facilitates a merge operation whereby the utterance-final complementizer is integrated into the preceding 'raised' complement clause *under a single intonation contour*. We refer to this phenomenon as the verbal pathway for sentence-final 'say'.

Data from Korean provide evidence of a nominal pathway as well. As seen in (6), *mal* 'word' is a noun. In combination with the light verb *ha* 'do', it forms the verb *mal-ha* 'say', as in (6a), and can yield evidential readings similar to the Sinitic examples above. However, in combination with the copula *i* 'be', it is still identifiable as a noun, and via focus construction as in (6b) it is reinterpreted as an emphatic (EMP) marker as in (6c), while in interrogative contexts as in (6d) it is reinterpreted as a counter-expectation (CE) marker.

The nominal 'say' pathway which yields Korean sentence final particle *mal-i-ta/mal-i-ya* parallels the nominal(izer) *kes* 'thing' pathway in Korean which gives rise to sentence final particle *kes-i-ta/kes-i-ya* (e.g. Rhee 2008). Parallels from other languages include Japanese *no desu*. In identifying this nominal 'say' pathway in Korean, our study highlights the availability of multiple strategies in the formation 'say' stance markers with different nuances.

Examples

Cantonese

(1) *keoi* ***waa*** *ngo deih hou chouh*
3SG say 1PL very noisy
'(S)he **said** we are very noisy.'

(2) *keoi kong* ***waa*** *ngo deih hou chouh*
3SG say COMP 1PL very noisy
'(S)he said **that** we are very noisy.'

(3) A: *ngo tai Man Ka* *m* *hoei* *ge laa*
1SG see (name of person) NEG go SFP
'I think Man Ka will not go.'
B: *nei waa bin go* *m* *hoei* ***waa***
2SG say who NEG go SFP
'Who (just now) did you say won't go?'

Taiwanese

(4) a. [CP [IP *i* [VP [V ***kong*** [COMP *lu boh lai*]]]]] '(S)he **said** you didn't come.'

b. [CP [C ***kong*** [TP *lu boh lai*]]] **'It's said** you didn't come.'

c. [CP [SPEC *lu bo lai*][C ***kong***]] 'You didn't come(,) **it's said**.'

English

(5) a. [CP [IP *I* [VP [V ***think*** [COMP *he will betray us*]]]]]
b. [CP [C ***I think*** [TP *he will betray us*]]]
c. [CP [SPEC *he will betray us*] [C ***I think***]]

Korean

(6) a. *Minsu-ka* *hay-ss-ta-ko* ***mal-ha*****y-ss-***ta***
Minsu-NOM do-PST-DEC-COMP word-do-PST-DEC
'It was said that Minsu did (it).'

b. *Minsu-ka* *hay-ss-ta-n* ***mal -i-ta***
Minsu-NOM do-PST-DEC-ADN word-be-DEC
Lit. **'It is that** Minsu that did (it).' → 'It is Minsu that did (it).'
'I am saying that Minsu did (it).'

c. *Minsu-ka* *hay-ss-ta-n* ***malita***
Minsu-NOM do-PST-DEC-ADN EMP (intensifier)
'Minsu did (it)!'

d. A: *cengmal* *pataska-ey* *ka-ss-e?*
really sea-LOC go-PST-Q
'Did you really go to the sea?'
B: *sin menu* *kaypal* *hay-o-la-myense-yo?*
new menu develop do-come-IMP-told-Q?
'you told me to develop a new menu?'
A: *kuke* *ttyaymay* *tonghay-kkaci* *ka-ss-tan* ***malya?***
that because of east.coast-to go-PST-SEQ CE
(counter-expectation)
'Because of that, did you **really** go to the east coast?'

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