

GS Language change

Intentionality and language change: Evidence from Kallawayá

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Keywords: intentionality; deliberateness; language change; secret languages; Bolivia

Kallawayá is a secret language spoken by herbalists of Lake Titicaca (Bolivia) during healing ceremonies and travels. It has been interpreted as a mixed, secret language, whose grammar comes from Quechua, while its main lexifier is extinct Pukina, allegedly contributing 70% of the Kallawayá lexicon (Stark 1972: 206; Muysken 1997: 427). Pukina was spoken around Lake Titicaca but became extinct in the 19th century (Adelaar and van de Kerke 2009: 125), being only poorly documented (Oré 1607). It has been suggested that Kallawayá arose when Pukina speakers shifted to Quechua (Muysken 1997: 430). However, based on an investigation of the available Kallawayá sources, I propose that Kallawayá is neither a mixed language nor that it emerged through language shift. Rather, it was deliberately created by Quechua native speakers. Moreover, I argue that the suggestion of 70% Pukina in the Kallawayá lexicon is methodologically and empirically inadequate.

The strongest support for my claim comes from Kallawayá grammar. Kallawayá includes eight grammatical markers which cannot be attributed to Quechua, Aymara or Spanish. Of these, only two originate from Pukina, while the remaining six markers are etymologically opaque. Moreover, of the 71 grammatical forms known from Pukina (Adelaar and van de Kerke 2009), only these two elements occur in Kallawayá, while of the other 69 Pukina grammatical forms none is attested in Kallawayá. Lastly, structural features of Kallawayá are not reminiscent of Pukina but closely resemble Quechua.

This is supported by the etymology of the Kallawayá lexicon. Only 5% can be related to Pukina, while Quechua, Aymara, Spanish, Uru-Chipaya, Kunza (aka Atacameño) and Ese Ejja have also contributed to the Kallawayá lexicon. It is thus considerably more heterogenous than previously assumed. The majority of the Kallawayá lexicon (53%) remains etymologically opaque and may include words from undocumented languages and/or coined expressions. Kallawayá therefore does not have a clearly identifiable lexifier and from a methodological and empirical perspective, it is thus problematic speaking of 70% Pukina included in Kallawayá. Example (1) demonstrates the lexical heterogeneity: *k^hutu* and *uwaru* are etymologically opaque; *laʎi* is attested in Pukina, Quechua and Aymara, while *saw* and *atʃa* are Pukina, although *saw* may ultimately originate from Ese Ejja. The grammatical material is entirely Quechua.

(1) *k^hutu-ntʃis-kuna* *laʎi uwaru* *saw-jux=puni* *atʃa-nko*
head.FIG-1PL.INCL-PL good fair heart-POR=CONF be-3PL

‘Our authorities are of a very good heart.’

(Oblitas Poblete 1968: 38)

Thus, the general dearth of grammatical features from Pukina and the heterogenous Kallawayá lexicon make an origin of Kallawayá from a Pukina-speaking population unlikely. Accordingly, I analyse Kallawayá not as mixed but as a secret language, deliberately created by Quechua native speakers.

These findings have broader implications. I argue that deliberateness and intentionality play a greater role in language change than is presently assumed (but see Thomason 1999, 2006, 2007; Jacobs 2019). This leads to the question which parts of language are consciously accessible to speakers. Based on my

research on Kallawayaya, I will suggest a toolkit for investigating awareness and intentionality in language change.

Abbreviations

CONF = confidence; FIG = figurative; INCL = inclusive; PL = plural; POR = possessor; 1PL = first-person plural; 3PL = third person plural

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References

- Adelaar, Willem and Simon van de Kerke (2009), Puquina, in M. Crevels and P. Muysken (eds), (2009), *Lenguas de Bolivia. Ámbito andino*, vol. I, La Paz, Bolivia: Embajada de Reino de los Países Bajos / MUSEF / Plural Editores, 125–146.
- Jacobs, Bart (2019), Special Issue: Intentional Language Change, *Language Dynamics and Change* 9(2).
- Muysken, Pieter (1997), Callahuaya, in S. G. Thomason (ed.), (1997), *Contact Languages: A Wider Perspective* (Creole Language Library 18), Amsterdam: John Benjamins, 427–448.
DOI: 10.1075/cll.17.14muy.
- Oblitas Poblete, Enrique (1968), *El idioma secreto de los incas (vocabulario castellano-callahuaya)*, La Paz: no publisher.
- Oré, Luis Jerónimo de (1607), *Ritvale, sev manvale Pervanvm, et forma brevis administrandi apud Indos sacrosancta Baptismi, Poenitentiae, Eucharistiae, Matrimonij, and Extremæ vnctionis Sacramenta*, Naples: Io. Iacobus Carlinus and Constantinus Vitalis.
- Stark, Louisa R. (1972), Machaj-Yuyai: Secret Language of the Callahuayas, *Papers in Andean Linguistics* 1(2), 199–228.
- Thomason, Sarah G. (1999), Speakers' Choices in Language Change, *Studies in the Linguistic Sciences* 29(2), 19–43.
- Thomason, Sarah G. (2006), Language change, intentional, in K. Brown (ed.), (2006), *Encyclopedia of Language and Linguistics*, 2nd edition, Oxford: Elsevier, 346–349. <https://doi.org/10.1016/B0-08-044854-2/01869-1>.
- Thomason, Sarah G. (2007), Language Contact and Deliberate Change, *Journal of Language Contact* 1, 41–62. <https://doi.org/10.1163/000000007792548387>.

From subgrouping debates to understanding language change: A case-study of related languages in contact

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Keywords: language change, language contact, language diversification, Samoyedic, Uralic

Whenever related languages are discussed in historical linguistics, the usual focus is on reconstructing the internal subgrouping of a family. If interrelation of divergence and convergence are scrutinized, the main implications are formulated as a revised family tree. Even such important theoretical advance stepping from these studies as a wave model of relatedness (François 2014, Heggarty et al. 2010, Aikhenvald & Dixon 2006) is ultimately about subgroupings and their validity, while the very premises of language differentiation remain overshadowed (though cf. Atkinson et al. 2008, Mansfield et al. Ms, Good 2023, Epps 2020). Besides, geographic separation continuously comes as the default case despite its presumably low frequency in the human history.

With this paper we contribute to shifting the focus. We report a comprehensive study of structural differentiation within Northern Samoyedic (NS), languages which developed in contact with each other. Samoyedic is a well-established branch of Uralic, while NS is analysed either as a further subbranch (e.g. Hajdú 1975) or as an areal union (e.g. Janhunen 1998). All agree, however, on the internal structure Nenets-Enets vs. Nganasan (Figure 1).

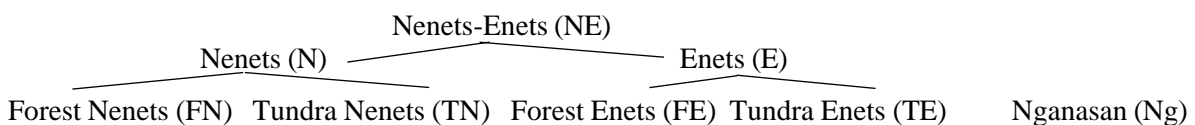


Figure 1. NS languages: languages contiguous on the schema are also contiguous geographically

Speakers of NS were nomads with everchanging migration paths in the last two millennia, and they came in and out of contact intermittently (Khanina 2022). So our study showcases not only interactions of related languages, but also a particular type of them: when contact episodes were parallel to separate development.

To examine the history of the NS languages, we have made an inventory of shared patterns of change in phonology and morphology (based on publications and own fieldwork data). In both structural domains, most changes went in line with the wordlist-based genealogy shown in Figure 1, but some other changes spread within neighbouring communities whose languages did not have an immediate common ancestor (Table 1). It is noteworthy that morphological and phonological innovations had different areas of dissemination.

	Phonological domain	Morphological domain
Number of changes spread along the genealogical tree (N, E, or NE)	22 (69%)	42 (55%)
Number of changes challenging the tree, but explainable from the geography (E-Ng, TE-Ng, TN-E, N-FE, or TN-FE)	8 (25%)	31 (40%)
Number of the other changes (TN-Ng, TN-FE-Ng, FE-Ng, E-FN, N-Ng)	2 (6%)	4 (5%)
Total	32 (100%)	77 (100%)

Table 1. NS shared changes

We question what kind of insights about mechanisms of language diversification can be drawn from the distribution of change patterns. We explain the NS history as phases of divergence alternating with phases of wave-like spread of patterns across the languages, conditioned by a complex interplay of intermittent contact due to nomadic way of life, conscious moves to social differentiation (François 2011, Epps 2020, Good 2023), unconscious cognitive bias against ambiguous provenance of forms (Ellison & Miceli 2017), and changes from ‘minor use pattern’ to ‘major use pattern’ (Heine & Kuteva 2005), inherited from the common protolanguage.

This paper thus promotes the budding theoretical debate on premises of language differentiation and develops methods of historical linguistics.

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References

- Alexandra Y. Aikhenvald & R. M. W. Dixon (2006), *Areal Diffusion and Genetic Inheritance: Problems in Comparative Linguistics*. Oxford: Oxford University Press.
- Ellison T. M. & Miceli L. (2017), Language monitoring in bilinguals as a mechanism for rapid lexical divergence. *Language*, 93(2), 255–287.
- Epps, Patience (2020), Amazonian linguistic diversity and its sociocultural correlates. In Crevels, Milly & Muysken, Pieter (eds.), *Language dispersal, diversification, and contact: A global perspective*. Oxford: Oxford University Press, 275-290.
- François, Alexandre (2011), Social ecology and language history in the northern Vanuatu linkage: A tale of divergence and convergence. *Journal of historical linguistics* 2011, 1, 175–246.
- François, Alexandre (2014), Trees, waves and linkages: Models of language diversification. In Bower, Claire & Evans, Bethwyn (eds.), *The Routledge handbook of historical linguistics*. London: Routledge, 161–189.
- Good, Jeff (2023), Trees, waves, and magnets? Language change in small-scale multilingual societies, In Darya Kavitskaya & Alan C. L. Yu (eds.), *The life cycle of language: past, present, and future*. Oxford: Oxford University Press, 386-398.
- Hajdú, Péter (1975), *Finno-Ugrian languages and peoples*. London: André Deutsch.
- Heggarty, P., Maguire, W., & McMahon, A. (2010), Splits or waves? Trees or webs? How divergence measures and network analysis can unravel language histories. *Philosophical Transactions: Biological Sciences*, 365 (1559), 3829–3843.
- Janhunen, Juha (1998), Samoyedic. In Daniel Abondolo (ed.). *The Uralic Languages*. London: Routledge, 457-479.
- Khanina, Olesya (2022), A history of Northern Samoyedic: adding details to the dialect continuum hypothesis. In: A. Anikin, V. Gusev, A. Urmanchieva (eds.). *Sibirica et Uralica: In Memoriam Eugen Helimski*. (Studia Uralo-Altaica 56.) Szeged: University of Szeged, 77-94.
- Mansfield, J., Leslie-O’Neill, H., & Li, H. (2023). Dialect differences and linguistic divergence: A crosslinguistic survey of grammatical variation. *Language Dynamics and Change*, 13(2), 232-276.
- Quentin D. Atkinson et al. (2008), Languages Evolve in Punctuational Bursts. *Science* 319, 588-588.

GS Semantics

Alternation of prepositional phrase complements to English mental adjectives: A case study on *angry*

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Keywords: prepositional phrase complements, mental adjectives, alternation, random forests, conditional inference trees

English mental adjectives combine with complements marked by a variety of prepositions. For example, *angry* can combine with prepositional phrase complements (PPCs) headed by *about*, *at* or *with*, as in (1a-c), as well as *for* and *over*, all potentially marking the external source of the denoted emotion or mental state.

- (1) a. We're angry **about** our major medical plans. (COCA, 1993)
b. I was just so angry **at** Billy. (COCA, 2019)
c. I couldn't be angry **with** him if I tried. (COCA, 2012)

Approaching such combinatorial patterns as a 'matching problem' (Noonan 1985), previous studies demonstrate that the system of PPCs to mental adjectives shows extensive variation (De Smet 2019, and Cai 2023). While some adjectives, such as *fond* and *proud*, are restricted to a single PPC-marker, numerous mental adjectives are extremely variable in choosing PPCs, allowing two or more types of PPC-markers.

The literature suggests several potential semantic factors constraining the choice between PPC-markers (Osmond 1997, Dirven 1997, and Kim 2017, 2018, 2021). This study sets out to test these proposals from the literature against corpus data. Drawing on data from the Corpus of Contemporary American English (COCA, Davies 2008), we conducted random forest and conditional inference tree analyses for 3537 randomly selected observations, analysing the impact of possible semantic, syntactic, and register factors on the choice between *about*, *at*, and *with* following the adjective *angry*.

The results indicate that alternation-internal factors only go some way towards predicting PPC selection, leaving much of the variation unaccounted for. For instance, complement animacy, a semantic factor, is a strong predictor of the choice between *about* as opposed to *at* and *with*, but then fails to further differentiate *at* from *with*. In short, the findings indicate that semantic contrast is a relevant factor motivating variation in the PPC system but falls far short of explaining all the variation.

The findings necessitate a more in-depth exploration of the motivations for variation in PPC-markers to mental adjectives. It is proposed that such motivation may actually lie outside the system of PPC-complementation proper, and resides in the broader semantic profiles of the prepositions involved, whose function as PPC-markers is only peripheral to their core meanings.

References:

- Cai, Yingying (2023), *Prepositional phrase complements to English mental adjectives: Variation and change*, Leuven: University of Leuven doctoral dissertation.
- Davies, Mark (2008), *The Corpus of Contemporary American English (COCA)*, <https://www.english-corpora.org/coca/>.
- De Smet, Hendrik (2019), The motivated unmotivated: Variation, function and context, in Kristin Bech and Ruth Möhlig-Falke (eds.) (2019), *Grammar - Discourse - Context: Grammar and Usage in Language Variation and Change*, Berlin/Boston: De Gruyter, 305-332.
- Dirven, René (1997), Emotions as cause and the cause of emotions, in S. Niemeier and R. Dirven (eds), (1997), *The language of emotions: Conceptualization, expression, and theoretical foundation*, Amsterdam: John Benjamins Publishing Company, 55-83.
- Kim, Eunmi (2017), Causality-Encoding of *at* and *by* in emotion constructions in English, *Australian Journal of Linguistics* 37(1), 1-18.
- Kim, Eunmi (2018), Persistence of spatial meanings in the conceptualization of causality: *At, by, with* and *about* in emotion constructions, *Poznan Studies in Contemporary Linguistics* 54(2), 223-254.
- Kim, Eunmi (2021), Prepositions *with* and *about* and schematic conceptualisation of emotion causality, *English Studies* 103(1), 138–153.
- Noonan, Michael (1985), Complementation, in T. Shopen (ed), (1985), *Language typology and syntactic description. Vol. 2. Complex constructions*, Cambridge: Cambridge University Press, 42-110.
- Osmond, Meredith (1997), The prepositions we use in the construal of emotions: Why do we say *fed up with* but *sick and tired of?*, in S. Niemeier and R. Dirven (eds) (1997), *The language of emotions: Conceptualization, expression, and theoretical foundation*, Amsterdam: John Benjamins Publishing Company, 111-133.

Purpose-of-motion clauses cross-linguistically: a metonymic approach

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Many languages exhibit a purpose clause construction which is restricted to matrix verbs of motion and differs structurally from a contextually unconstrained purposive construction. I call such constructions purpose-of-motion (henceforth PoM) constructions. Finnish provides an example: in sentence (1), the purpose clause is subordinate to the motion predicate and the verb in it is marked by suffixes *-ma* (so-called third infinitive) and *-an* (illative). In example (2), however, the matrix verb does not denote motion and hence a different construction bearing a first infinitive and a translative affix should be used.

(1) *Pes-ty-ä-nne hampaa-t mene-tte [nukku-ma-an].*
wash-PTCP.PST.PASS-PART-POSS.2PL tooth-PL go-2PL sleep-3INF-ILL
'After brushing your teeth you go to sleep.'
(Sulkala and Karjalainen 1992: 67)

(2) *Sinun täyty-y olla ahkera [saa-da-kse-si palkinno-n].*
you.GEN must-3SG be.1INF diligent get-1INF-TRA-POSS.2SG prize-GEN
'You must be diligent to win a prize.'
(Sulkala and Karjalainen 1992: 213)

Previous typological research has only briefly considered the phenomenon of PoM constructions in a broader context of adverbial (Hetterle 2015), purpose (Schmidtke-Bode 2009) or infinitival (Ylikoski 2003) clauses. The current study explores various properties that are cross-linguistically typical of PoM constructions, thus providing the first dedicated typological investigation of this domain. Based on a variety sample of 30 languages (35 constructions), I assess several parameters of cross-linguistic variation of PoM constructions.

Supporting Ylikoski's (2003) and Schmidtke-Bode's (2009) claims, I show that PoM clauses are typically arguments of the matrix clause. This distinguishes them from contextually unconstrained purposive constructions, which are typically adjuncts. I also consider cross-linguistic variation of sets of matrix verbs licensing usage of PoM constructions. The major distinction here lies between PoM constructions which can only be used with intransitive matrix verbs of motion, such as 'go', and those which can also be used with transitive motion (motion causation) verbs, such as 'send'. Quite remarkably, I have not found a single PoM construction which would only allow for transitive matrix motion verbs. Finally, I examine the internal syntax of PoM constructions focusing on subject encoding patterns. PoM clauses differ from unconstrained purposive constructions quite drastically in this respect. For instance, Schmidtke-Bode (2009: 53) shows that it is quite common for purpose clauses in general to require their subjects to corefer with matrix S or A participants. Although PoM subjects are often obligatorily controlled as well, this pattern is not found among PoM constructions. On the contrary, subjects of certain PoM constructions must corefer with either matrix S or P (but not A) participant, which is not attested in Schmidtke-Bode's sample of purposive constructions in general.

Developing Schmidtke-Bode's (2009) ideas, I propose that PoM constructions do not only denote the purpose of motion event but also metonymically refer to its destination. This approach accounts for various empirical findings outlined above. For instance, the proposed twofold function of PoM constructions allows the PoM clause in (1) to replace the matrix spatial destination participant, thus functioning as an argument rather than as an adjunct. This study thus does not only unveil several previously undescribed cross-linguistic tendencies, but also contributes to their functional explanation.

Abbreviations: 1INF – first infinitive, 2 – second person, 3 – third person, 3INF – third infinitive, GEN – genitive, ILL – illative, PART – partitive, PASS – passive, POSS – possessive suffix, PST – past, PTCP – participle, SG – singular, PL – plural

References

- Hetterle, Katja. 2015. *Adverbial Clauses in Cross-Linguistic Perspective*. Berlin, Boston: De Gruyter Mouton.
- Schmidtke-Bode, Karsten. 2009. *A typology of purpose clauses*. Amsterdam, Philadelphia: John Benjamins.
- Sulkala, Helena & Karjalainen, Merja. 1992. *Finnish*. London, New York: Routledge.
- Ylikoski, Jussi. 2003. Defining non-finites: action nominals, converbs and infinitives. *SKY Journal of linguistics* 16.1. 185-237.

Types of zero complements in French and Spanish prepositional phrases: New evidence from acceptability judgment experiments

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Keywords: zero complements, orphan prepositions, pronoun types, French, Spanish

Background. Some French prepositions can appear without an overt complement (cf. (1)). The discussion about the status of such zero complements (starting with Zribi-Hertz's (1984) seminal work) is still ongoing (cf. also Troberg 2020). Recently, Authier (2016) argued that French prepositions are heterogeneous in this respect: The zero complement of some prepositions is a null pronoun (e.g., *avec* 'with') while other prepositions (e.g., *pour* 'for') are syntactically intransitive (i.e., the zero complement is not syntactically active).

The goal of this paper is to take this discussion one step further and show that the zero complement of one and the same preposition can have different statuses: null pronoun vs. background deletion.

Empirical study. To investigate the status of the zero complement in PPs I conducted two acceptability judgment experiments (Heidinger, accepted). In the experiments, I tested the impact of three factors on the acceptability of zero complements in PPs with *avec/con* 'with' and *sans/sin* 'without' (42 Spanish + 42 French participants, online, 5-point Likert scale (5 = best)):

(i) animacy of complement: human vs. non-human,

(ii) crosslinguistic distribution: French vs. Spanish,

(iii) sentence type: reduced sentences (fragments) with a contrastive focus on the preposition (2B, sample stimulus for French) vs. 'full sentences' without contrastive focus on the preposition (3B, sample stimulus for Spanish).

Acceptability scores show that zero complements in the two contexts in (2) and (3) undergo different restrictions w.r.t animacy and crosslinguistic distribution. In French, animacy restrictions are stronger in non-contrastive contexts than in contrastive fragments (cf. Figure 1): The difference in acceptability between zero complements for human and for non-human referents is considerably bigger in non-contrastive contexts than in fragments. In Spanish, restrictions on zero complements are generally stronger in non-contrastive contexts than in contrastive fragments; cf. Figure 2, where zero complements receive higher acceptability scores in fragments than in non-contrastive contexts (strong pronouns serve as a baseline and score so high that the box for interquartile range is only a line).

Discussion. The empirical results show that zero complements are more restricted in non-contrastive than in contrastive contexts. I therefore assume the existence of two types of zero complements (Table 1): null pronouns in non-contrastive contexts, and background deletion (ellipsis) in contrastive contexts. Crucially, in Spanish only background deletion but no null pronouns are available. For French, the results suggest that even a single preposition may display two different types of zero complements: null pronouns in non-contrastive contexts, and background deletion in contrastive contexts (adding to the distinctions made in Authier (2016)).

Data

(1) *J'=aime bien cette valise. Je=voyage toujours avec.*

I=like well this suitcase I=travel always with

'I like this suitcase a lot. I always travel with it.' (Authier 2016: 236)

(2) A: *Tu=préfères jouer avec Jean?*
 You=prefer play with Jean?
 'You'd rather play with Jean?'

B: *No, sans.*
 No, without
 'No, without him.'

(3) A: *¿Buscas tu sombrero?*
 You.search your hat?
 'Are you looking for your hat?'

B: *Sí, parezco más joven con.*
 Yes, I.look more young with
 'Yes, I look younger with it.'

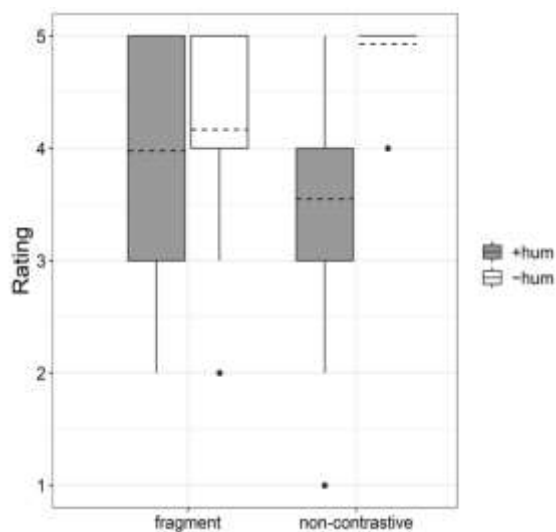


Figure 1: Acceptability scores for zero complements (French)

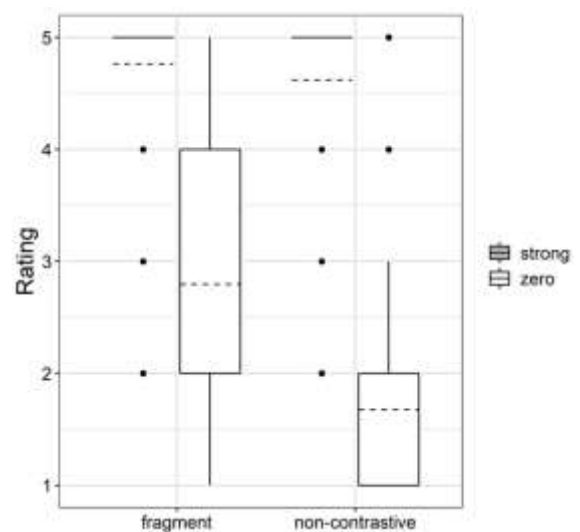


Figure 2: Acceptability scores for zero complements and strong pronouns (Spanish)

	French	Spanish
Background deletion (as in (2B))	✓	✓
Null pronoun (as in (3B))	✓	*

Table 1: Types of zero complements in French and Spanish PPs

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References

- Authier, J.-Marc (2016), French orphan prepositions revisited. *Probus* 28(2). 231–270. <https://doi.org/10.1515/probus-2014-0011>.
- Heidinger, Steffen (accepted), Types of zero complements in French and Spanish prepositional phrases: New evidence from acceptability judgment experiments. *Isogloss*.
- Troberg, Michelle (2020), Les prépositions orphelines : un réexamen à la lumière du SP étendu. *Arborescences* 10. 185–206. <https://10.7202/1081896ar>
- Zribi-Hertz, Anne (1984), Prépositions orphelines et pronoms nuls. *Recherches Linguistiques* 12. 46–91.

Development of epistemics from temporal deictics: Evidence from Mari

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Keywords: deixis, multiple perspective construction, epistemic perspective, Common Ground management, grammatical shift

Deictic items encoding coordinative dimension of space and time are widely recognized to be grammaticalized into markers of knowledge-related categories such as evidentiality or engagement (Willett 1988; Aikhenvald 2004: 275–276; Evans et al. 2018). This is due to the fact that coordinative deictics typically represent types of multiple perspective constructions in sense of Evans (2005), where one state of affairs is accessed from two different vantage points. Differences in access positions, in turn, lie also in the center of epistemic expressions.

In the current research, however, no categorical distinction is made between spatial and temporal deictics, implicating that they have an identical potentiality to form epistemic expressions. At the same time, the quoted examples are almost exclusively limited to markers of spatial perspective, such as demonstratives, while little is said on how elements referring to different temporal strata interact with epistemic issues. This presentation targets the question by discussing the Mari languages (Uralic), where grammatical epistemics have their origin in temporal deixis.

Mari employs a temporal strategy called retrospective shift, where past expressions are created from present ones with help of sentence-final retrospectivizing particles *əʎe*, *ulmaf* (Meadow Mari), and *əʎə*, *əʎən* (Hill Mari). Morphosemantically representing 3rd person singular past tense forms of the verb ‘to be’, these ‘was’-elements shift the temporal interpretation of a presently marked event into its actual location past from the speaker as in example (1):

(1) Meadow Mari (Spets 2023: 292)

farn-et *t̪əaj*, *kuze* *tufto* *jyftəl-əna* *əʎe?*
remember-PRS.2SG maybe how there swim-PRS.1PL was

‘You remember maybe, how we used to swim there?’ (Literally: [we swim there] + [so it **was**])

Considering their epistemicity, the retrospection-based constructions (unlike morphological tenses) present events as “clearly remembered by the speaker” (Uchaev 1985: 49, 53–54). The present tense indicates a synchronic observer, who is “re-living” the past situation, while the ‘was’-element locates a retrospective memorizer, who brings this recollection up. The contrast between different temporal strata represents thus a monoperosnal type of multiple perspective, where the two viewpoints mark different mental locations of one observer, who explicates their personal cognitive relationship with the forwarded information. Spatial multiple perspective constructions, in contrast, are intersubjective by default given that accessing a state of affairs simultaneously from different positions in space necessarily requires presence of two different observers. (C.f. Evans 2005: 103–105.)

Hence, I present that spatial and temporal deictics are typically not grammaticalized into similar epistemic functions. While spatial deictics have been demonstrated to turn into engagement markers expressing the knowledge status of the addressee (Evans et al. 2018: 159–162), I will show how the Mari particles are restricted to speaker-anchored dimensions of epistemicity. These include evidentiality as well as Common

Ground management, where the personal access to knowledge is employed to mark speaker's ability to react to the accommodation of new information to the discourse (see e.g. Grzech 2020). By indicating its common perspective-based properties with complex temporal constructions, the presentation also specifies the semantic ingredients of Common Ground management as a discourse-interactive epistemic category. Finally, the results serve typological comparison material for other languages with functionally similar but diachronically yet unclear epistemics.

References

- Aikhenvald, Alexandra Y. (2004), *Evidentiality*, New York: Oxford University Press.
- Evans, Nicholas (2005), View with a view: Towards a typology of multiple perspective constructions, *Annual Meeting of the Berkeley Linguistics Society* 31(1), 93–120.
- Evans et al. = Nicholas Evans, Henrik Bergqvist and Lila San Roque, (2018), The grammar of engagement II: typology and diachrony, *Language and Cognition* 10, 141–170.
- Grzech, Karolina (2020), Epistemic primacy, Common Ground management and epistemic perspective, in Henrik Bergqvist and Seppo Kittilä (eds), (2020), *Evidentiality, egophoricity and engagement*. (Studies in Diversity Linguistics 30). Berlin: Language Science Press, 23–60.
- Spets, Silja-Maija (2023), Temporal perspective and its formal background. An explanation for aspectual synonymy between simple and analytic past tenses in Mari, *Suomalais-Ugrilaisen Seuran Aikakauskirja* 99. *Journal de la Société Finno-Ougrienne* 99, 275–318.
- Uchaev = Учаев, З. В. (1985), *Марий йылме. Факультативный занятийым эртарыме учебный пособий. Кокымшо ужаш*, Йошкар-Ола: Марий книга издательство.
- Willett, Thomas (1988), A cross-linguistic survey of the grammaticization of evidentiality, *Studies in Language* 12(1), 51–97.

Types of Romanian vocatives and types of interpretation

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Keywords: vocatives, definites, Person, Romanian

Introduction: Vocative nominals in Romanian can either lack a determiner or be marked with the suffixal definite article and can either show dedicated vocative endings or appear in the nominative-accusative form, which is arguably a morphological default. This leads to a maximum of four forms (for the masculine singular, see *băiat* ‘boy’; in the plural and fem. sg. there is no distinction between +/-def in vocative-marked forms):

- (1)
- | | |
|-------------|-------------------|
| a. +def+voc | <i>băiat-ul-e</i> |
| b. +def | <i>băiat-u’</i> |
| c. -def+voc | <i>băiet-e</i> |
| d. -def | <i>băiat</i> |

Previous studies have described the lexical and phonological factors that govern the choice between these forms (Vasiliu 1956, Croitor & Hill 2013) and the correlations between these forms and degrees of politeness (Zafiu 2001, Hill 2014, 2022). We present some previously unnoticed correlations between these forms and the main types of vocative uses and explore their theoretical consequences. Vocative phrases can be used: (i) to identify the addressee (‘identificational’), (ii) to maintain the contact with an already established addressee (‘activational’), or (iii) to qualify the addressee (‘predicative’/‘evaluative’), see Schaden (2010).

Identificational use: Diagnostic contexts for this use are situations in which there are several persons who can hear the speaker and the speaker uses the vocative to choose one or several of them as addressee(s), e.g., in a classroom, the teacher says: ‘The boy who’s looking at his cell phone, what have I just said?’. In Romanian, in such a situation only the use of an unmarked definite (+def) is appropriate.

Person. A relative clause inside an identificational [+def] vocative can have a 3rd person verb. All the other types (+def+voc, -def+voc, -def) require 2nd person in a relative clause.

Evaluative use. Vocatives used in order to qualify the addressee usually expresses a positive or (more often) negative evaluation of the hearer (Corver 2008, d’Avis & Meibauer 2013) and behave semantically as a type of exclamation (Gutzmann 2019). In Romanian, this use requires [+def +voc]:

- (2) Măgarule! / #Măgar! / #Măgaru’!
donkey-the-VOC donkey donkey-the
‘You swine!’

Analysis. We adopt the general framework in Hill (2014), in which vocatives involve a VocP above DP/NP. As in identificational vocatives the nominal description is not yet established as characterizing the hearer, it need not bear 2nd Person. We propose that there is a special Voc head Voc_{ident} that takes a DP as a complement and changes the context *c* so that Hearer(*c*) is identified with the referent of the DP. [-def] vocatives rely on a +2nd null D that introduces as a *presupposition* the fact that the hearer

bears the NP-property. This makes it incompatible with the identificational use. For the same reason [-def] is incompatible with the evaluative use: in this use, the characterization of the hearer is new information – it is not part of the common ground that the hearer has the property denoted by the NP. This also explains why [voc] marking is required, and languages that do not have vocative morphology, such as English, sometimes require the use of a 2nd person pronoun (see the English version of (2)), which, according to Hill (2014), spells-out Voc⁰. We propose that overt marking is a reflex of raising to Voc⁰, and evaluative vocatives require an overt Voc⁰.

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References

- d'Avis, Franz, and Jörg Meibauer (2013), Du Idiot! Din idiot! Pseudo-vocative constructions and insults in German (and Swedish), in Barbara Sonnenhauser and Patrizia Noel Aziz Hanna (eds), *Vocative! Addressing between System and Performance*, Berlin: Mouton De Gruyter, 189–217.
- Corver, Norbert (2008), Uniformity and diversity in the syntax of evaluative vocatives, *Journal of Comparative Germanic Linguistics* 11, 43–98.
- Croitor, Blanca, and Virginia Hill (2013), Vocatives, in Carmen Dobrovie-Sorin & Ion Giurgea (eds), *A Reference Grammar of Romanian. Volume 1: The Noun Phrase*, Amsterdam, Philadelphia: John Benjamins, 801–826.
- Gutzmann, Daniel (2019), *The Grammar of Expressivity*, Oxford: Oxford University Press.
- Hill, Virginia (2014), *Vocatives: How syntax meets with pragmatics*, Leiden: Brill.
- Hill, Virginia (2022), The syntactization of kinship in vocative phrases, *Glossa: a journal of general linguistics* 7(1), 1–24.
- Schaden, Gerhard (2010), Vocatives: a note on addressee-management, *University of Pennsylvania Working Papers in Linguistics* 16 (1), 176–185.
- Vasiliu, Laura (1956), Observații asupra vocativului în limba română. *Studii de Gramatică* 1, 5–23.
- Zafiu, Rodica (2001), *Diversitatea stilistică în româna actuală*, Bucharest: Editura Universității din București.

What measure phrases can tell about relative and absolute adjectives

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Keywords: Measure phrase, relative adjective, absolute adjective, Functional Discourse Grammar (FDG), degree modification

Absolute adjectives, such as *square* in (1) allow for deletion of measure phrases, whereas relative adjectives, such as *old* in (2), do not.

(1) (2x2 meter) **square** table

(2) a *(5-foot) **tall** boy

This raises the question of a) how to analyse these combinations and b) how to explain the functional and formal behaviour of these adjectives.

This paper argues that the analysis of adjectives-measure phrase constructions offers valuable insights for the analysis of adjectives in their base form, especially regarding the relative/absolute distinction, and that Functional Discourse Grammar (FDG, Hengeveld & Mackenzie 2008) is particularly suitable for capturing and explaining their functional and formal behaviour.

Relative adjectives are associated with open-ended scales, while absolute ones are associated with (partially) closed scales (Kennedy & McNally 2005: 354f.) or an either-or distinction (Paradis 2001: 52). While the latter thus has an absolute standard regardless of its head, as in (3), the former's standard is relative to the head, as in (4).

(3) square **floor tiles** vs square **table**

(4) tall **boy** vs. tall **tree**

In both (5) and (6) the measure phrase provides an explicit value, in (5) it fixes the relative adjective's value to an explicit degree value, whereas in (6) it only provides further detail about the absolute adjectives.

(5) **5-foot** tall boy

(6) **2x2** m square table

In both cases, measure phrase (q_i) and adjective (f_k) are analysed as forming a compound that applies to the head (x_i). For relative adjectives, as in (7), this compound is a configurational property (f_j), consisting of a predicate (the adjective *tall* (f_k)) and an argument (the measure phrase *5-foot* (q_i)). For absolute adjectives, as in (8), this compound is a complex property (f_j) consisting of a head (the adjective *square* (f_k)) and a modifier (the measure phrase *2x2 meter* (q_i)).

(7) (1 x_i : (f_i : boy (f_i)) (x_i): (f_j : [(f_k : tall (f_k)) (5 q_i : (f_i : foot (f_i)) (q_i))_{Degree}] (f_j)) (x_i))

(8) (1 x_i : (f_i : table (f_i)) (x_i): (f_j : (f_k : square (f_k)) (2x2 q_i : (f_i : meter (f_i)) (q_i)) (f_k)) (f_j)) (x_i))

This accounts for the possibility to delete measure phrases combining with absolute adjectives, and the impossibility to do so with relative adjectives.

Further, an analysis of measure phrase and adjective as compound explains the non-prototypical behaviour of the measure noun (f_i) regarding inflection and modification, an alternative to semi-lexicality analyses (cf. Csirmaz & Stavrou 2017: 5-8 and references therein).

In the absence of an explicit value, relative adjectives need a comparison class argument as their standard. Absolute adjectives do not, since they can make use of their scale's endpoint(s). This is captured by analysing the relative adjective *tall* (f_k) in its base form as having a comparison class argument (x_j) with the same denotation as the head, i.e. the lexical property (f_i) of being a boy, as in (9), and the absolute adjective *square* (f_i) as not having one, as in (10).

(9) $(1 x_i: (f_i: \text{boy } (f_i)) (x_i): (f_j: [(f_k: \text{tall } (f_k)) (x_j: (f_i) (x_j))_{\text{comparison_class}}] (f_j)) (x_i))$

(10) $(1 x_i: (f_i: \text{table } (f_i)) (x_i): (f_j: \text{square } (f_j)) (x_i))$

The paper will further offer an analysis of absolute yet potentially gradable adjectives and measure phrases, such as e.g. *bent*, as well as cases where adjective or numeral are omitted.

In sum, the proposed analysis presents a different perspective on the relative/absolute distinction and shows how FDG can capture and account for the functional and formal consequences of this distinction.

References

- Csirmaz, A. & Stavrou, M. (2017). Measure phrases and semi-lexical nouns. In Everaert, M. & van Riemsdijk, H. (eds.), *The Wiley Blackwell companion to syntax*, 2nd Ed.: 2433-2498. London: Wiley Blackwell. <https://doi.org/10.1002/9781118358733.wbsyncom058>
- Hengeveld, K. & Mackenzie, J. L. (2008). *Functional Discourse Grammar*. Oxford: Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780199278107.001.0001>
- Kennedy, C. & McNally, L. (2005). Scale Structure, Degree Modification, and the Semantics of Gradable Predicates. *Language* 81(2): 345–381. <https://doi.org/10.1353/lan.2005.0071>
- Paradis, C. (2001). Adjectives and boundedness. *Cognitive Linguistics*, 12(1): 47-65. <https://doi.org/10.1515/cogl.12.1.47>.

The linguistic representation of events of causation in Mandarin

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Keywords: causation, causative, empirical study, semantic variables

Causation is a basic concept in human cognition and language (Talmy 2000). Previous studies are concerned with the causative-causation mapping at the syntactic-semantic interface, focusing on how causatives distribute in alignment with causations (Haiman 1983, Dixon 2000, Shibatani and Pardeshi 2001, and Haspelmath 2008). In Chinese linguistics, scholars tend to explicate the similarities and differences of distinct causatives in terms of their semantic components with small constructed examples (Deng 1991, Fan 2000, Niu 2008, Zhang and Wang 2008, and Song 2019). But few empirical studies have systematically examined the distribution trend of different causatives. Meanwhile, the predictive power of semantic variables such as intermediary, autonomy and animacy with respect to each other was not pointed out.

Against this backdrop, this paper intends to examine: (1) What distribution trends do Mandarin causatives demonstrate? (2) How do semantic variables motivate native Mandarin speakers to choose one causative but refrain from another in naming a certain causation? Situated in a usage-based framework and designed as a subproject of the CAL (Causality Across Languages) project (Bellingham et al. 2020), two consecutive empirical studies were conducted to explore the distribution and selection of Mandarin causatives.

The first study was a production study, in which 20 native Mandarin speakers were recruited to describe 43 videos of causations with all possible causative patterns. In doing so, six causative patterns were identified and they formed up a cline of increasing frequency, 'lexical (1a) < adverbial (1b) < complex sentence (1c) < verb-de (1d) < verb-result (1e) < periphrastic (1f)'. It is evident that periphrastic causatives constitute the most preferred pattern in Mandarin, followed by verb-result and verb-de causatives. Complex sentences and adverbial expressions are also chosen by Mandarin speakers from time to time. Lexical causative is the least frequently used pattern.

The second study was a comprehension study. 12 native Mandarin speakers were instructed to rate the applicability of the causative patterns used for different causations with a rating scale from 1-4. The rating result is transformed into a distance matrix. Then machine learning models, including Conditional Inference Tree (Ctree) models and random forest models, were constructed to identify the semantic variables that can predict the acceptability of the various causative types (Tagliamonte and Baayen 2012, and Tomaschek et al. 2018). It was revealed that among the six causatives, periphrastics, complex sentences and adverbial clauses were generally applicable across the board. The verb-de causative was similarly acceptable across the board, but when the causee or affectee assumes control ability, it was more suitable for unmediated causations. The acceptability of lexical and verb-result causatives was significantly constrained by the presence of an intermediary, and the animacy and the control ability assumed by the causee or affectee.

(1) a. 女士 撕 了 纸。

woman **tear** LE paper

The woman **tore** the paper.

b. 因为 女士 敲打, 盘子 碎 了。

because woman knock, dish smash LE

Because of the woman's knocking, the dish smashed.

c. 风 吹 雨伞, 所以 伞 飘 远 了。
wind blow umbrella, so umbrella flow away LE

The wind blew the umbrella, **so** the umbrella flew away.

d. 海浪 吓得 男子 跑 了。

wave **frighten-de** man run LE

The wave **frightened** the man to such an extent that he ran away.

e. 女生 推翻 了 杯子堆。

woman **overturn** LE cuptower

The woman **overturned** the cuptower.

f. 女生 让 男生 撕坏 了 报纸。

woman **let** man tear-destroy LE newspaper

The woman let the man tear the newspaper.

References

- Bellingham, Erika., Stephanie Evers, Kazuhiro Kawachi, Alice Mitchell, Sang-Hee Park, Anastasia Stepanova & Juergen Bohnemeyer (2020), Exploring the representation of causality across languages: Integrating production, comprehension and conceptualization perspectives, in Elitzur, A., B. A, Siegal and N, Boneh, (eds.), (2000), *Perspectives on Causation: Papers from the Jerusalem 2017 Workshop*, Springer, 75-120.
- Dixon, R. M. W (2000), A typology of causatives: form, syntax and meaning, in Dixon, R. M. W. & A.Y. Aikhenvald (eds.), (2000), *Changing Valency: Case Studies in Transitivity*. Cambridge: Cambridge University Press, 30-83.
- Deng, Shou-hsin (1991), The semantics of causatives in Chinese, *Foreign Linguistics* (3), 29-35.
- Fan, Xiao (2000), On causative structures, in X, Fan (ed.), (2000), *Grammar Research and Exploration* (10), Beijing: The Commercial Press, 135-151.
- Haiman, James (1983), Iconic and economic motivation, *Language*, 59, 781-819.
- Haspelmath, Martin (2008), Frequency vs. iconicity in explaining grammatical asymmetries, *Cognitive Linguistics* 19(1), 1-33.
- Niu, Shunxin (2008), A typological study of synthetic causatives in Mandarin, *Studies in Language and Linguistics* 28(1), 60-68.
- Shibatani, Masayoshi & Prashant Pardeshi (2001), The causative continuum, in M. Shibatani (ed.), (2001), *The Grammar of Causation and Interpersonal Manipulation*, Philadelphia: John Benjamins, 85-126.
- Song, Wenhui (2019), A linguistic typological study on Chinese causative constructions, *East Linguistics* 18, 58-87.
- Tagliamonte, Sali & Harald Baayen (2012), Models, forests and trees of York English: Was/were variation as a case study for statistical practice, *Language Variation and Change* 24(2), 135-178.
- Talmy, Leonard (2000), *Toward a Cognitive Semantics (Vol. I): Concept Structuring Systems*. Mass: The MIT Press.
- Tomaschek, Fabian., Peter Hendrix & R. Harald Baayen (2018), Strategies for addressing collinearity in multivariate linguistic data, *Journal of Phonetics* 71, 249-267.
- Zhang, Quansheng & Yuxuan Wang (2008), The causative semantic categories of verb-result patterns, *Journal of Chinese Language* (2), 83-89.

Differences in color perception across populations may shape color naming

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Keywords: language evolution; color lexicons; cross-cultural psychology; color perception; Himba people

Color vocabularies reflect remarkable diversity, notably in the number of color terms used. Such diversity has often been ascribed to differences in communicative needs. Conversely, color lexicons also share important common patterns, often attributed to shared perceptual systems among humans. However, several studies challenge the latter assumption. In this research, we examine the possibility that differences in color perception across cultures may contribute to shaping color lexicons. To explore this, we conducted a comparative analysis of color perception in two populations: the French and the Himba people. These two groups exhibit markedly different color lexicons, paralleled by exposure to distinct environmental conditions. Notably, Himba participants are exposed to significantly more UV radiation, a factor that may impact color perception (especially for blue colors) through its effects on the eye physiology.

This study employed a comprehensive battery of color-perception tasks designed to control for task reliability for cross-cultural comparison. After careful task selection, we analyzed the results from two computerized tests, focusing specifically on blue and red colors. The first task involved discriminating the direction of a flashing arrow, of which the contrast with the background color progressively decreased, allowing us to measure the Just Noticeable Difference (JND) threshold. In the second task, 12 squares arranged in a circular pattern were shown on screen, where one deviant square was presented in a different color. Participants' reaction time and accuracy were measured as they detected on which side of the screen the deviant square appeared. To minimize potential biases in inter-group comparisons, we controlled for various confounding variables, including factors related to patterns of color naming and other possible confounds associated with color perception.

Our findings reveal a direct effect of age, which interacts with population: color perception deteriorates more steeply with age in the Himba sample of participants than in the French sample. Interestingly, although we expected a more pronounced effect for blue than red colors, this age-related decline was similar across all colors. While increased UV exposure emerges as a likely contributing factor, we do not rule out the possibility that other factors, such as genetic or cultural differences between the two populations, may account for the stronger effect of age on color perception in the Himba sample. Even though the causal mechanisms at the root of these results require additional investigation, the group difference in color perception raises intriguing questions. Given the influence of perceptual space on color lexicon, we suggest that the variations in color perception we have observed between the French and Himba participants have contributed to shaping their respective color lexicons. Thus, while communicative need is an important factor in shaping color lexicon, perceptual structure may also serve an important dual role, contributing to both

commonalities and differences in color lexicons. This research advances our understanding of the intricate relationship between perception and language. Overall, this work suggests that language is deeply intertwined with its surroundings, highlighting the relevance of considering weak biases related to the socio-cultural system, the environment, or the biology of its speaker.

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Perception time as a semantic feature of evidentiality in Amdo Tibetan

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Keywords: Tibetan, evidentiality, semantics, pragmatics, typology of information structure

This study re-examines evidentiality in Amdo Tibetan, which has markers previously described as encoding both tense and evidentiality. This would make them instances of what Visser (2015) calls ‘tensed evidentials’. We disagree that tense is an encoded function of Amdo evidentiality. Instead, we propose that the temporal connotations of these markers are better explained as expressions of **perception time**, which is part of the complex semantics of evidentiality, and not of **event time**, as would be expressed by tense markers. As typologists seek to understand the relationship between grammatical categories like tense and evidentiality, it is important to clarify the semantic differences between such categories as they occur in specific languages. Doing so also helps us understand how grammatical categories develop and why some categories grammaticalize in some languages but not others.

Aikhenvald (2021: 86-90) describes a cross-linguistic tendency for some evidentials to encode a reference time that is independent of the event time. We find this to be true of Amdo evidential markers. They may convey a sense of event time, but this is epiphenomenal to the semantics of evidentiality. The separateness of perception and event time is illustrated for Sensory *-t^ha*, below.

Past perception time, present event time

1. <i>k^hərka</i>	<i>ta</i>	<i>ʈoptə</i>	<i>naŋna</i>	<i>jo-t^ha</i>
3s	now	school	inside	exist-SENS

‘He is at school now.’ (His class is in the same room after my class. I saw him enter as I left.)

Past perception time, past event time

2. <i>k^hartsaŋ</i>	<i>k^hərka</i>	<i>ʈoptə</i>	<i>naŋna</i>	<i>jo-t^ha</i>
yesterday 3s	school	inside	exist-SENS	

‘He was at school.’ (We had class together yesterday.)

Past perception time, future event time

3. <i>k^hərka</i>	<i>ˈdzo</i>	<i>-rʃəjɪn-t^ha</i>
3s	go.IPF	-FUT-SENS

‘He will go to class.’ (I just saw him. He told me he’ll go to school.)

While perception time and event time are conceptually distinct, we find instances in which functions associated with one concept are used strategically to express senses associated with the other. An example of this is the use of progressive aspect to express a speaker’s direct experience of another person’s internal state (4), in contrast to using imperfective aspect for one’s own internal state (5).

Speaker experiencer

4. *ŋa na-kə*
1s be.ill-IPF

'I am sick.'

Non-speaker experiencer

5. *kʰarka na-ko-kə*
3s be.ill-PROG-IPF

'He is sick.'

References

- Aikhenvald, Alexandra Y. 2021. The web of knowledge: Evidentiality at the cross-roads. *The Web of Knowledge*. Leiden: Brill. 1-139.
- Shao, Mingyuan (邵明園). 2014. *Anduo zangyu arou hua de shizheng fanchou* 安多藏语阿柔话的示证范畴 [Evidentiality in A-rig Dialect of Amdo Tibetan]. Nankai: Nankai University dissertation.
- Sun, Jackson T.-S. 1993. Evidentials in Amdo Tibetan. *Bulletin of the Institute of History and Philology, Academia Sinica* 63(4). 945-1001.
- Sung, Kuo-Ming & Lha Byams Rgyal. 2005. *Colloquial Amdo Tibetan: A Complete Course for Adult English Speakers*. Xining: Krung go'l bod rig pa bde skrun khang.
- Tribur, Zoe. 2019. Verbal Morphology of Amdo Tibetan. Eugene: University of Oregon dissertation.
- Visser, Eline. 2015. Tensed evidentials: A typological study. *Linguistic Typology*. 19(2). 279-325.

On Chinese "shooting star" prepositions: Do we have a case of cyclic change?

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Keywords: syntax, semantic change, cyclic change, preposition, Chinese

There is a strong claim in the mainstream literature on grammaticalization studies pioneered by Meillet (1912) that the grammaticalization process is unidirectional. Haspelmath (1999) even claimed that grammaticalization is irreversible, i.e., the movement is always from content words (or full words in Chinese) to empty words. However, many counterexamples to unidirectionality have been reported and discussed in detail with well-documented instances of so-called 'degrammaticalization'. See Haspelmath (2004), Norde (2009).

It is well known that most of Chinese prepositions have been grammaticalized from verbs. In fact, the situation has been more complex. Some prepositions have been derived from adverbs after a secondary grammaticalization that followed the first primary grammaticalization V > Adverb > Preposition. See, among others, Kuryłowicz (1965), Peyraube (1988), Traugott (2002), Heine & Kuteva (2004), Hagège (2010).

The processes of grammaticalization have also led to various outcomes and the prepositions themselves have sometimes continued to evolve in other directions. Five of them will be identified in this paper:

- (1) verbs that were directly grammaticalized into genuine prepositions. This is the case, for example, of the passive marker *bèi*;
- (2) after being grammaticalized into prepositions, verbs can still be used as main verbs, leading to what can be called a hybrid category 'verb-preposition'. Examples are *yòng* "use-with", *zài* "be at-at/in", *dào* "arrive-to", *suí* "follow-along", *wèn* "ask-from", *lǎn* "stop-from", *ná* "take-object marker", *gǎn* "rush-since/from".
- (3) some prepositions became conjunctions (through a secondary grammaticalization mechanism) after undergoing a first grammaticalization process. Examples: *yǔ* "with", *tóng* "with", *gēn* "with" > "and" etc.
- (4) an interesting issue is the possibility for classical prepositions from the Archaic period to combine with other morphemes to become enclitics: *yǐ* "to" > *jiāyǐ* "moreover", *zúyǐ* "enough", *kěyǐ* "can"; *yú* "at/in/from/to" > *gǎnyú* "to dare", *zàiyú* "to be, lie in", *duìyú* "for", etc.
- (5) finally, there is in the Chinese language a singular phenomenon that some scholars have called the 'shooting star' prepositions (*liúxīng jiècí*). See He Hongfeng (2013). These are prepositions that have lost their prepositional status to become verbs again from which they were grammaticalized. Examples include *zuò* "sit > because of > sit" *yuán* "edge > along with > edge", *zhuō* "catch > object marker > catch", *qù* "go > at/in > go", etc. examples that are different from typical cases of degrammaticalization or antigrammaticalization.

This paper will focus on this last point, which is very similar to what Gabelentz (1891) already called a cyclic change, or more precisely one that involves a spiral movement.

References

- Gabelentz, Georg von der (1891), *Die Sprachwissenschaft: ihre Aufgaben, Methoden und bisherigen Ergebnisse*. Leipzig: Weigel.
- Hagège, Claude (2010), *Adposition*. Oxford University Press.
- Haspelmath, Martin (1999), Why is grammaticalization irreversible? *Linguistics* 37, 1043-1068.
- Haspelmath, Martin (2004), On directionality in language change with particular reference to grammaticalization, in Olga Fischer, Muriel Norde & Harry Perridon (eds.), (2004), *Up and down the cline: The nature of grammaticalization*, Amsterdam: John Benjamins, 17–44.
- He, Hongfeng (2013), Jìndài hànyǔ “liúxīng” jiècí (*Les prepositions des ‘étoiles filantes’ du chinois moderne*), *Yǔyán yánjiū* 4, 71-81.
- Heine, Bernd & Tania, Kuteva (2004), *World Lexicon of Grammaticalization*. Cambridge University Press.
- Kuryłowicz, Jerzy (1965), The Evolution of Grammatical Categories, reprinted in Jerzy Kuryłowicz, (1975), *Esquisses linguistiques* 2, München: Fink, 38-54,
- Meillet, Antoine (1912), L'évolution des formes grammaticales, in A. Meillet, (1948), *Linguistique historique et linguistique générale*, Paris : Champion, 130-148.
- Norde, Muriel (2009). *Degrammaticalization*. Oxford: Oxford University Press.
- Peyraube, Alain (1988), Syntactic change in Chinese: on grammaticalization. *The Bulletin of the Institute of History and Philology* 59, 617-652.
- Traugott, Elizabeth Closs (2002), From etymology to historical pragmatics, in Donka Minkova & Robert Stockwell (eds.), (2002), *Studies in the History of the English Language*, Berlin: Mouton de Gruyter, 19-49.

Linguistics of Temperature in Ancient Greek: Metaphorical extensions of HOT and COLD

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Keywords: Ancient Greek, Conceptual Metaphor Theory, Lexical Typology, Linguistics of Temperature, Ancient Greek WordNet

This paper examines the semantics of Ancient Greek (AG) temperature terms. In particular, embracing Conceptual Metaphor Theory (CMT; Lakoff/Johnson 1980), it sheds light on the cognitive processes underlying the metaphorical extensions of these terms.

Lexical typology has extensively explored the ‘linguistics of temperature’ (Plank 2003, 2010; Koptjevskaja-Tamm 2015), providing insights into the connection among natural phenomena, human body, and cognition. Notably, temperature perception is arranged along a scale, and different degrees of heat and cold can be perceived as positive or negative by humans. CMT is especially interested in TEMPERATURE as a source domain for metaphorical mappings toward the target domain of EMOTIONS, which are grounded on the metonymy THE PHYSIOLOGICAL EFFECTS OF AN EMOTION STAND FOR THE EMOTION (Lakoff/Kövecses 1987). Positive and negative INTENSE EMOTIONS (e.g., LOVE, ANGER) are mapped to HEAT, while LACK OF EMOTIONS/CONTROLLED EMOTIONS are conceptualized as LACK OF HEAT/COLD (Lakoff et al. 1991; Kövecses 1995; Radden 2000; Lorenzetti 2009).

So far, no research has focused on AG temperature terms. We fill this gap by providing a comprehensive analysis of AG nouns, adjectives, and verbs related to the subdomains of HOT and COLD. We included in our analysis an equal number, i.e. 5, of terms for the HOT and COLD subdomains, selecting sufficiently frequent and morphologically simplex ones. These terms were scrutinized in a literary corpus made of 500+ occurrences from archaic and classical Greek texts extracted using the Thesaurus Linguae Graecae (<https://stephanus.tlg.uci.edu>). We manually annotated each extracted occurrence for (i) literal vs. metaphorical meaning, (ii) target domain, and (iii) metaphorical mapping.

Our results show that the metaphorical developments of these terms are mostly linked to EMOTIONS, as observed for other languages (Barcelona Sánchez 1986; Apresjan 1997; Coschignano 2021). E.g., the verb *thermainō* ‘make warm/hot’ instantiates the metaphor ANGER IS HEAT (1), while the adjective *psukhrós* ‘cold’ exemplifies the metaphor UNINTERESTING IS COLD (2), cf. Lorenzetti (2009).

1.

<i>kai</i>	<i>mè</i>	<i>pròs</i>	<i>orgèn</i>	<i>splánkhna</i>
and	NEG	toward	anger(F):ACC.SG	gut(N):ACC.PL
<i>thermēnēs</i>	<i>kótōi</i>			
make_hot:AOR.SBJV.2SG	resentment:DAT.SG			

‘And do not heat your guts to anger with resentment.’ (Ar. *Ran*.844).

2.

<i>tòn</i> DET.ACC	<i>Palamédē</i> Palamedes:ACC.SG	<i>psukhròn</i> cold:ACC.SG	<i>ónt'</i> be:PTCP.ACC.SG
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aiskhúnetai
be_ashamed:3SG
‘[Euripides] is ashamed of [his tragedy] Palamedes because it is insipid’ (Ar. *Th.*848)

Additional metaphorical extensions are attested in our corpus: e.g., *thálpō* ‘make warm/hot’ instantiates the metaphor LIFE IS HEAT in (3):

3.

<i>ei</i> if	<i>d'</i> PTC	<i>éti</i> still	<i>zameneî</i> mighty:DAT.SG	<i>Timókritos</i> Timocritus:NOM.SG
<i>halíōi</i> sun:DAT.SG	<i>sòs</i> your	<i>patèr</i> father:NOM.SG	<i>ethálpeto</i> make_hot:IMPF.3SG	[...]
<i>huiòn</i> son:ACC.SG	<i>keládēse</i> celebrate:AOR.3SG	<i>kallínikon</i> triumphant:ACC.SG		[...]

‘And if your father Timocritus had still been kept alive by the strength of the sun (i.e., alive) [...] he would have often celebrated his triumphant son’ (Pind. *N.* 4.14).

At a theoretical level, this paper contributes to expanding our knowledge of linguistics of temperature with insights from ancient languages (cf. also Fruyt 2013 on Latin). At a practical level, these results enrich the semantic annotation of the Ancient Greek WordNet (under development within the project *Linked WordNets project for Ancient Indo-European languages*, <https://sites.google.com/unipv.it/linked-wordnets/home-page?authuser=0>; Biagetti et al. 2021).

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References

- Apresjan, Valentina (1997), Emotion Metaphors and Cross-Linguistic Conceptualization of Emotions, in *Cuadernos de filología inglesa*, 612: 179-195.
- Barcelona Sánchez, Antonio (1986), On the Concept of Depression in American English: A Cognitive Approach, in *Revista Canaria de Estudios Ingleses*, 12, 7-35.
- Biagetti, Erica, Zanchi, Chiara, & William Michael Short (2021), Toward the creation of WordNets for ancient Indo-European languages, in P.Vossen, and C. Fellbaum, (eds), (2021), *Proceedings of the 11th Global Wordnet Conference*, University of South Africa (UNISA): Global Wordnet Association, 258-266.
- Coschignano, Serena (2021), The semantic network of temperature: Non-sensory domains accessed with metaphorical extensions of the Italian adjectives caldo and freddo in *Review of Cognitive Linguistics* 19, 232-258.

- Fruyt, Michèle (2013), Temperature and Cognition in Latin, in *Revue de linguistique latine du centre Alfred Ernout (De Lingua Latina)* 9: varia.
- Koptjevskaja-Tamm, Maria (2015), Introducing “the linguistics of temperature”, in M. Koptjevskaja-Tamm (eds), (2015), *The linguistics of temperature*, Amsterdam/Philadelphia: John Benjamins, 1-40.
- Kövecses, Zoltán (1995), Anger: Its language, conceptualization, and physiology in the light of cross-cultural evidence, in *Language and the Cognitive Construal of the World*, J.R. Taylor & R.E. MacLaury (eds), (1995), Berlin: Mouton de Gruyter, 181–196.
- Lakoff, George & Zoltán Kövecses, (1987), The cognitive model of anger inherent in American English, in D. Holland and N. Quinn (eds), (1987), *Cultural models in language and thought*, New York: Cambridge University Press, 195–221.
- Lakoff, George, Espenson, Jane, & Alan Schwartz (1991), *The Master Metaphor List*, Berkeley: Cognitive Linguistics Group, University of California, Berkeley.
- Lakoff, George, & Mark Johnson (1980), *Metaphors we live by*, Chicago: University of Chicago Press.
- Lorenzetti, Maria (2009), “That girl is hot, her dress is so cool, and I’m just chilling out now”: Emergent metaphorical usages of temperature terms in English and Italian, paper presented at the *Corpus-Based Approaches to Figurative Language Colloquium* in Liverpool, UK, July 2009.
- Plank, Frans (2003), Temperature talk: The basics, a talk presented at the *Workshop on Lexical Typology at the ALT conference* in Cagliari, September.
- Plank, Frans (2010), Temperature talk: The basics revisited, a talk presented at the *Workshop on Temperature in Language and Cognition*, Stockholm University, 19–20 March.
- Radden, Günter (2000), How metonymic are metaphors?, in Antonio Barcelona (eds), (2000), *Metaphor and Metonymy at the Crossroads. Topics in English Linguistics* 30. Berlin/New York: Mouton de Gruyter, 93-108.

Future and past tenses in binary tense systems

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Keywords: actionality, mood, tense, time reference, typology

This talk will present the results of a cross-linguistic survey of tense in a geographically and genealogically stratified sample of 180 languages (based on the *genus-macroarea* sampling method, Miestamo 2005). Two major points will be made, concerning a) the special status of the future as opposed to the present and the past, and b) the question whether grams expressing reference to the future should be characterized as tense or rather as mood markers.

Point a) relates to the fact that cross-linguistically, languages tend to set the future as a timeline area apart from the present and the past, which is illustrated by several independent observations: firstly, binary tense systems of the future/non-future type are far more frequent than those of the past/non-past type. Secondly, binary tense distinctions triggered by specific semantic contexts (such as polar questions or negation) in otherwise tertiary tense systems are exclusively of the future/non-future type. The third observation concerns a specific type of interaction between tense and actionality, termed the *present perfective paradox* (PPP) (Malchukov 2009, De Wit 2017). In languages exhibiting the PPP, the gram that is used for present-time reference with stative verbs licenses a non-present, i.e. a future or past interpretation with dynamic verbs. Results show that in languages with PPP, the past interpretation with dynamic verbs is far more frequent than the future one. This pattern is stable across macroareas and tense systems. These observations taken together suggest that there is a marked semantic difference between the present and the past as timeline areas on the one hand, and the future on the other, as has already been observed in prior literature (e.g., Langacker 1991, Smith and Erbaugh 2005).

This difference, in turn, has led some scholars to argue that future/non-future tense systems are in fact modal systems making a distinction between realis and irrealis. Point b) of this talk will address this issue by investigating the additional, non-temporal functions of tense markers in binary tense systems. The picture implied by the results is mixed: on the one hand, future-marking grams in future/non-future systems have significantly more additional functions than past tenses in past/non-past systems, and all of these functions can indeed be characterized as having irrealis semantics (e.g., imperatives, negated clauses and counterfactual constructions). On the other hand, the notion of "irrealis" seems to be a fuzzy category, as has already been observed in prior literature (e.g., Cristofaro 2012): no language simultaneously expresses all of the identified non-temporal functions with a future gram; conversely, there is no single non-temporal function which is systematically expressed by all future-marking grams in the sample.

In summary, the results suggests that a) the future as a timeline area stands out as opposed to the present and the past, but that b) this shouldn't lead one to assume that future-marking grams are not tenses at all. Instead, the semantics of future tenses across languages seems to form a scale ranging from "exclusively temporal" to "temporal with significant modal overtones".

References

- Cristofaro, Sonia. 2012. Descriptive notions vs. grammatical categories: Unrealized states of affairs and 'irrealis'. *Language Sciences* 34. 131–146.
- De Wit, Astrid. 2017. *The Present Perfective Paradox across Languages*. Oxford: Oxford University Press.
- Langacker, Ronald W. 1991. *Foundations of Cognitive Grammar, Vol. 2: Descriptive Application*. Stanford: Stanford University Press.
- Malchukov, Andrej L. 2009. Incompatible categories: Resolving the "present perfective paradox". In Lotte Hogeweg, Helen de Hoop & Andrej L. Malchukov (eds.), *Cross-Linguistic Semantics of Tense, Aspect and Modality*, 13–31. Amsterdam: John Benjamins.
- Miestamo, Matti. 2004. *Standard Negation – The Negation of Declarative Verbal Main Clauses in a Typological Perspective*. Berlin: Mouton de Gruyter.
- Smith, Carlota S. & Mary Erbaugh. 2005. Temporal interpretation in Mandarin Chinese. *Linguistics* 43. 217–256.

GS Anthropological linguistics

Landscape is what we touch – Accessing *landscape* through language: A Dâw perspective

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Keywords: Landscape; Perception; Amazonian languages; Indigenous knowledge systems; Sensorimotor norms

Research in the language and cognitive sciences suggests variability in how humans express their perceptions of the world through language (see Boas 1911, Lucy 1992, Boroditsky 2006, Evans 2010, Majid 2015). The semantic domain of landscape is no exception to that: we see cross-linguistic variation when it comes to how languages structure and categorize elements of the geophysical environment in their lexicons (Burenhult & Levinson 2008, Mark et al. 2011). And yet, we still know little about the semantic challenges and about how the domain of landscape *itself* can be conceptualized within a given speech community. Using language as a window allows not only for uncovering complexities in the semantic construal of the term *landscape* in an individual language, but is also crucial for understanding Indigenous relationships with the environment. Here, we present a qualitative case study assessing the concept of *landscape* in Dâw (Naduhup), spoken by 160 people in Northwestern Amazonia (Brazil) during which community members did a free listing task (informed by Van Putten et al. 2020) and a subsequent rating task (informed by Purves et al. 2023). In the free listing task, Dâw speakers were asked to list terms that they associate with the target word *dəw wəj paj* ‘landscape’; lit. ‘what we see’ which allowed for explorations on the underlying notions related to the concept (Van Putten et al. 2020:2). In the subsequent rating task, community members rated the fourteen most common terms collected during free listing task with respect to a) sensorimotor associations, i.e., their bodily actions with these landscape elements, and b) emotional association, i.e., emotions that these terms elicit. These methods were designed to answer the following research questions: How do Dâw speakers conceptualize the semantic domain of landscape? And more specifically, which sensorimotor and emotional associations do they describe for specific landscape terms and what variation is there among individuals and groups? Preliminary results show that Dâw speakers appear to conceptualize the domain of landscape in similar ways reflecting the local topography and culturally intrinsic aspects of engagement with the landscape, affordances, and spirituality. Thus, free listing results predominantly included terms representing specific parts of the forest key for Dâw subsistence practices (e.g., *paʔ* ‘highland forest’, *káw* ‘manioc garden’). Yet, we find subtle variation on an individual level in terms of sensorimotor and emotional associations which equally speak to specific relationships that the Dâw maintain with landscape elements. For example, Dâw women rated terms like *təw* ‘path’ with more negative feelings and less control, while male community members responded with feelings of confidence and content. We also find overall higher ratings for the haptic dimension among Dâw speakers when compared to ratings from Western societies (Van Putten et al. 2020). This is further evidence that speaker communities differ in the ways they represent their environment through sensorimotor associations (see Majid et al. 2018; Winter et al. 2018).

References

- Boroditsky, Lera (2006), Linguistic relativity, in L. Nadel (ed) (2006), *Encyclopedia of cognitive science*, New York: John Wiley & Sons, 917-912.
- Burenhult, Niclas; Levinson, Stephen (2008), Language and landscape: A cross-linguistic perspective, *Language Sciences* 30, 135–150.
- Evans, Nicholas (2010), Semantic typology, in J. J. Song (ed), *The Oxford handbook of linguistic typology*, Oxford: Oxford University Press, 504–533.
- Lucy, John (1992), *Language diversity and thought: A reformulation of the linguistic relativity hypothesis*. Cambridge: Cambridge University Press.
- Majid, Asifa (2015), Comparing lexicons cross-linguistically, in J. R. Taylor (ed), *The Oxford Handbook of the Word*, Oxford: Oxford University Press, 364–379.
- Majid, Asifa; Roberts, Seán G.; et al. (2018), Differential coding of perception in the world's languages, *Proceedings of the National Academy of Sciences*, 115(45), 11369–11376.
- Mark, David; Turk, Andrew; Stea, David; Burenhult, Niclas (2011), *Landscape language: Transdisciplinary perspectives*, Amsterdam: John Benjamins.
- Purves, Ross; Striedl Philipp; Kong, Inhye; Majid, Asifa (2023), Conceptualizing landscapes through language: the role of native language and expertise in the representation of waterbody related terms, *Topics in Cognitive Science* 15(3), 560-583.
- Van Putten Saskia; O'Meara, Carolyn; Wartmann, Flurina; Yager, Joanne; Villette, Julia; Mazzuca, Claudia; Bieling, Claudia; Burenhult, Niclas; Purves, Ross; Majid, Asifa (2020), Conceptualisations of landscape differ across European languages, *PLoS ONE* 15(10), e0239858.
- Winter, Bodo; Perlman, Marcus; Majid, Asifa (2018), Vision dominates in perceptual language: English sensory vocabulary is optimized for usage, *Cognition* 179, 213–220.

Accessible, online training for digital language documentation

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Keywords: Language Documentation, Teaching and Training, Linguistic Fieldwork, Annotation, Lexicography

With an estimated half of the world's languages at risk of vanishing in the next one or two generations, the documentation of endangered languages should be a priority for linguistics. However, only a limited group of scholars have access to proper training in language documentation. This lack of access to training is even starker when we consider non-academic, community-led documentation (for example, see Arka 2018 on the challenges to participation in Indonesia). This should be of great concern to linguists of all subfields, as quality, multipurpose documentation is a foundational source of data for linguistics. Furthermore, language documentation is needed to support revitalization efforts by language communities, and the practice of documentation is a way for people to increase capacities in areas of broader utility such as technological skills (see Chelliah 2021 for an overview of the impacts of language documentation). In order to rapidly scale the accessibility of language documentation training, our team has developed a collection of free, multilingual, online training and learning resources. These resources are designed so that they could be implemented as stand-alone modules to enrich a field methods course, as the basis of a summer-school style training, or as resources for independent learning.

The training materials cover a broad range of topics from Data Management and Metadata Creation to a variety of software topics such as using ELAN to create time-aligned annotations and Fieldworks Language Explorer to create lexica. The materials are provided in multiple formats, giving learners the option of using short video tutorials, detailed PDFs with illustrative examples and/or screenshots, or one-pager checklist style guides, depending on their learning preferences. Where relevant, modules also include sample files, templates, and other auxiliary resources so that learners can actively follow along with the training materials. The materials are also available in French and Spanish.

The resources created so far are a baseline set for teaching core skills in data processing and analysis. We actively encourage others to use, adapt, and translate the materials to serve the unique contexts of their projects and where they work. We regularly update and add to the collection, and we are open to suggestions for topics that we should include in the future.

In this talk, we introduce these materials with the hope that they will serve the teaching, training, and learning needs of our fellow linguists, their students, and members of endangered language communities around the globe. Importantly, the teaching materials aim to drastically improve the quality of the linguistic analysis, the reproducibility of linguistic claims, comparability across data sets, as well as researcher productivity.

References

- Arka, I Wayan (2018), Reflections on the diversity of participation in language documentation, in B. McDonnell, A. L. Berez-Kroeker, and G. Holton (eds), *Reflections on Language Documentation 20 years after Himmelmann 1998*, Language Documentation & Conservation Special Publication no. 15, 132-139.
- Chelliah, Shobhana L. (2021), Impact of Language Documentation, in S. L. Chelliah, *Why Language Documentation Matters*, Springer Briefs in Linguistics, 91-94.

GS Morphosyntax: Complex predicates

Auxiliaries and light verbs in diachrony: a case-study from Late Latin and early Italo-Romance

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In this talk we discuss some aspects of the grammaticalization of lexical verbs as passive auxiliaries and light verbs in the transition from Latin to Romance, focussing on (i) the diachronic relationship between auxiliarization and light verbs, (ii) the direction of the changes, (iii) the pertinacity to change of light verbs (Bisang 2008; Butt 2010; Heine & Kuteva 2011; Butt & Lahiri 2013, among others).

More specifically, we consider the parameters shaping the (passive) auxiliary and light verb uses of some motion (COME), and change of state (BECOME) verbs in Late Latin and some early Italo-Romance vernaculars, in relation to the *status of light verbs* — whether (optional) intermediate stages in the auxiliarization process (Rosen 1977; Giacalone Ramat 2000; Giacalone Ramat & Sansò 2014, among others) or a different syntactic category (Butt 2003) — and to the linearity of the relationship between auxiliary and light verb uses of verbs along the path verbal lexeme > (vector/light verb) > auxiliary (Heine 2003; Hopper & Traugott 2003 and recent discussion in Bisang 2011; Börjars & Vincent 2011; Butt & Lahiri 2013; Cennamo 2019, among others).

We argue that the light verb uses of the verbs under investigation, e.g., BECOME in Late Latin (1) and some early Italo-Romance vernaculars (2), COME in old Tuscan (3) seem to exhibit a different type rather than a reduced degree of decategorialization, conveying, respectively, semantic nuances of resultativity (e.g., *cocta facta* in (1), *strangosada facta* in (2)), and unexpectedness, involitionality/lack of control (e.g., *gli venne ... veduta* in (3), with the A argument encoded as an oblique, i.e., in the dative).

- (1) *lenticula et brassica vis (=bis) cocta facta* (Orib. *Syn* 4,30)
lentil.F.SG.NOM and cabbage.F.SG.NOM twice cook.PTCP.F.SG make.PTCP.F.SG 'Lentils and cabbage cooked twice' (lit. '**cooked made**') (Svennung 1935: 459)
- (2) *strangosada facta* (*Passione*, 16. 23) (old Lombard)
anguish.PTCP.F.SG make.PTCP.F.SG
'Anguished' (lit. '**anguished made**') (Cennamo 2019: 214)
- (3) *Gli venne per ventura questa donna veduta* (*Decameron* II. 7.91)
he.DAT come.PST.3SG by chance this woman see.PTCP.F.SG
'He happened to see this woman' (lit. **to him** by chance **came** this woman **seen**)

In contrast, in their passive auxiliary uses, these verbs are T(ense)-A(spect)-M(odality) markers, as shown in (4) for the verb COME, with the original (non-finite verbal) complement, the past participle *fatto* 'made', functioning as the main verb (i.e., the lexical verb):

- (4) *Il tradimento non venne fatto*
the betrayal not come.PST.3SG make.PTCP.M.SG
'The betrayal was not made' (lit., not '**came made**') (Villani, *Cronica* L.12, cap. 8 | page c50)

We also show that the relationship light verb-auxiliary is non-linear: the same lexeme, in fact, can have simultaneously auxiliary and light verb uses, the latter developing, for some verbs, after their auxiliary uses.

Thus, the patterns investigated appear to bring interesting data to the current debate on the rise and grammaticalization paths of passive auxiliaries and on the status and diachrony of light verbs as compared with auxiliaries.

References

- Bisang, W. 2008. Grammaticalization and the areal factor- the perspective of East and mainland Southeast Asian languages. In M.J. López & E. Seoane (eds), *Rethinking Grammaticalization*. Amsterdam/Philadelphia: Benjamins, 55–88.
- _____. 2011. Grammaticalization and linguistic typology. In H. Narrog & B. Heine (eds), 105– 117.
- Börjars, K. & Vincent, N. 2011. Grammaticalization and directionality. In H. Narrog & B. Heine (eds), 163–176.
- Butt, M. 2003. The light verb jungle. *Harvard Working Papers in Linguistics* 9: 1–49. Butt, M. & A. Lahiri 2013. Diachronic pertinacity of light verbs. *Lingua*.
- Cennamo, M. 2019. Aspects of grammaticalization and reanalysis in the voice domain in the transition from Latin to early Italo-Romance. In L. Heltoft, I. Igartua, B. Joseph, K. Jeppesen Kragh & L. Schøsler (eds), *Perspectives on Language Structure and Language Change*, Amsterdam/Philadelphia: Benjamins, 205-231
- Giacalone Ramat, A. 2000. Some grammaticalization patterns for auxiliaries. In J.C. Smith & D. Bentley (eds), *Historical Linguistics 1995*, vol. 1. Amsterdam/Philadelphia: Benjamins, 125–38.
- Giacalone Ramat, A. and Sansò, A. 2014. “Venire (‘come’) as a passive auxiliary in Italian”, in M. Devos & J. van der Wal (eds), *Come and Go off the Beaten Grammaticalization Path*, Berlin: Mouton de Gruyter, 21-44.
- Heine, B. 1993. *Auxiliaries. Cognitive Forces and Grammaticalization*. Oxford: Oxford University Press.
- _____. 2003. Grammaticalization. In B. Joseph & R. Janda (eds), *The Handbook of Historical Linguistics*. Oxford: Blackwell, 576–601.
- Heine, B. & Kuteva, T. 2011. The areal dimension of grammaticalization. In H. Narrog & B. Heine (eds), 291–301.
- Hopper, P. & Traugott, Elisabeth C. 2003. *Grammaticalization*. Cambridge: Cambridge University Press.
- Ledgeway, A. 2011. Grammaticalization from Latin to Romance. In H. Narrog & B. Heine (eds), *The Oxford Handbook of Grammaticalization*. Oxford: Oxford University Press, 717–726. Narrog, H. & Heine, B. (eds) 2011. *The Oxford Handbook of Grammaticalization*. Oxford: Oxford University Press.
- Rosen, C. 1997. Auxiliation and serialization: on discerning the difference. In A. Altsina, J. Bresnan & P. Sells (eds), *Complex Predicates*. Stanford: CSLI.
- Svennung, J. 1935. *Untersuchungen zu Palladius und zur Lateinische Fach-und Volkssprache*. Uppsala: Almqvist & Wiksell.

Bracketing paradoxes in Mande complex verbs

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Keywords: compound verb, particle verb, preverb, grammaticalisation, word formation

Complex verbs containing grammaticalised spatial or body part items, often labelled particle verbs or compound verbs in various traditions, are a common type of word formation, e.g. *be-megy* in-go ‘go in’, *ki-jön* out-come ‘come out’, *fel-repül* up-fly ‘fly up’ in Hungarian (Ladányi 2015). Such structures tend to pose theoretical challenges via bracketing paradoxes, i.e. simultaneously calling for two incompatible constituent analyses (Newell 2019), e.g. $[[auf-hör]-en]$ vs. $[auf-[[hör]-en]]$ in German (Müller 2003: 277); although evidence for this mainly comes from Germanic languages (Dehé 2015, Müller 2003, and references therein).

In this talk, I contribute to the discussion of bracketing paradoxes in complex verbs derived via spatial items by considering data from Mande, a West African language family. Mande languages have rigid SAuxOVX word order, where X stands for all indirect objects and adjuncts, which are typically expressed by postpositional phrases, and Aux is an auxiliary. In various Mande branches, there is a recurrent type of N+V complex verbs having the following properties:

- the preverbal item, or preverb (Creissels 2020; Makeeva 2013; Vydrin 2009), denotes a body part or has more abstract spatial semantics, e.g. *lîi* ‘heart’ + *kũlo* ‘take out’ = ‘frighten’; *hũ* ‘interior’ + *kũlo* ‘take out’ = ‘explain’ in Guinean Kpelle (Southwestern Mande, own data).
- complex verb follows another NP, yielding common N N V sequences
- the structural position of the preverb is contradictory: from the *semantic* and sometimes *morphological* point view, it forms a single unit with the verb calling for $[N [N V]]$ bracketing; but *syntactically* it forms a unit with the preceding NP, functioning as its head: $[[N N] V]$.

I further illustrate these properties in (1ab) from Guinean Kpelle:

- (1a) *dàa Héni mǎa wíe*
3PL.PRF Heni side_surface be_heavy
Aux $[N_{DO} [N V]]$
Aux $[[N_{POSS} N] V]$
‘They respect Heni’.
- (1b) $[Héni mǎa]$ *è wíe*
Heni side_surface 3SG.SUBJ be_heavy
 $[N_{GEN} N]$ Aux V
‘May Heni be respected’.

While both $[N [N V]]$ and $[[N N] V]$ analyses are applicable in (1a), only $[[N N] V]$ is acceptable in (1b), where the first NP *Héni* unambiguously patterns as the possessor argument of the spatial noun *mǎa*. And yet, semantically the complex verb in (1b) still functions as a single highly idiomatic unit.

Mande complex verbs thus challenge the view of verbal particles as items that do not take complements (McIntyre 2015), and of bracketing paradox as only involving adjuncts (Newell 2019). It is specifically the syntactic ability of Mande preverbs to function as NP heads that creates the structural mismatches. Taking examples from distant Mande branches, mainly from Southwestern,

Southern and Samogo-Bobo languages, I further demonstrate that structurally ambiguous complex verbs are a recurrent pattern across the family, calling for a unified diachronic explanation.

I account for the bracketing paradoxes in Mande complex verbs by showing that Mande preverbs retain their diachronic properties as inalienable nouns and the mismatches derive from two family-internal grammatical constraints: 1) inalienable nouns must follow their possessor as an immediately adjacent complement; 2) all transitive verbs are P-labile.

Abbreviations

PL – plural; PRF – perfect; SG – singular; SUBJ – subjunctive

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References

- Creissels, Denis (2020), Grammaticalisation in Manding languages, in W. Bisang & A. Malchukov (eds), (2020), *Grammaticalisation scenarios. Areal patterns and cross-linguistic variation*, Berlin: De Gruyter, 695-727.
- Dehé, Nicole (2015), Particle verbs in Germanic, in P. O. Müller, I. Ohnheiser, S. Olsen and F. Rainer (eds), (2015), *Word-Formation: An International handbook of the languages of Europe, vol.1*, Berlin, München, Boston: De Gruyter Mouton, 611-626.
<https://doi.org/10.1515/9783110246254-037>
- Ladányi, Mária (2015), Particle verbs in Hungarian, in P. O. Müller, I. Ohnheiser, S. Olsen and F. Rainer (eds), (2015), *Word-Formation: An International handbook of the languages of Europe, vol.1*, Berlin, München, Boston: De Gruyter Mouton, 660-672.
<https://doi.org/10.1515/9783110246254-039>
- Makeeva, Nadezda (2013), Les préverbes en kla-dan, *Mandenkan* 50, 85-102.
- McIntyre, Andrew (2015), Particle-verb formation, in P. O. Müller, I. Ohnheiser, S. Olsen and F. Rainer (eds), (2015), *Word-Formation: An International handbook of the languages of Europe, vol.1*, Berlin, München, Boston: De Gruyter Mouton, 434-449.
<https://doi.org/10.1515/9783110246254-025>
- Müller, Steven (2003), Solving the bracketing paradox: an analysis of the morphology of German particle verbs, *Linguistics* 39, 275-325.
- Newell, Heather (2019), *Bracketing paradoxes in Morphology*, Oxford Research Encyclopedia of Linguistics.
<https://oxfordre.com/linguistics/linguistics/view/10.1093/acrefore/9780199384655.001.0001/acrefore-9780199384655-e-589>
- Vydrin, Valentin (2009), Preverby v jazyke dan-gueta [Preverbs in Dan-Gweetaa], *Voprosy Jazykoznanija* (2), 75-84.

Semi-auxiliaries and complex predicates: Romanian non-finite modal configurations

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Keywords: complex predicates, restructuring, modal verbs, semi-auxiliaries, Romanian

1. On complex predicates (in Romance)

The notion of ‘complex predicate’ has received intensive attention not only in general linguistics (see the references in the workshop description), but also in Romance linguistics (cf. Sheehan 2016; Dragomirescu, Nicolae & Dindelegan 2022). With reference to the Romance languages, a broad understanding of this concept as referring to any predicate structure that ‘consists of more than one piece’ (Svenonius 2008: 47) has led to the inclusion of a wide range of structures in this class – even of auxiliary-verb constructions in Abeillé & Godard (2002, 2003), while a more restrictive definition that makes use of concepts such as *restructuring* (cf. Rizzi 1978; Cardinaletti & Shlonsky 2004) and *monoclausality* limits the range of possible complex predicates – modal and aspectual complex predicates, various types of causative complex predicates, complex predicates with perception verbs.

2. The Romanian modal semi-auxiliaries

Known as ‘semi-auxiliaries’ since Guțu Romalo (1956) and variously analysed in the literature as a variety of complex predicates (Dragomirescu 2013) or as instances of restructuring (Motapanyane & Avram 2011), the Romanian modals *putea* (‘can, may, be able to’) and *trebui* (‘must, have to’) represent a fertile ground for testing the notion of complex predicates and the concepts and properties surrounding it – *restructuring*, *monoclausality*, the relation between the semi-auxiliary and its verbal complement, etc.). These modal semi-auxiliaries select different types of complements: finite (subjunctive) and non-finite (bare short infinitive for *putea*, participle or supine for *trebui*) (illustration with *putea*).

- (1) *Pot* *citi* / *să citesc*.
 can.IND.1SG read.INF SUBJ read.SUBJ.1SG
 ‘I can/am able to read’

In what follows, we focus on the non-finite modal configurations. Among other properties (too broad to address in the abstract, e.g., shared argument structure, compatibility with clitic adverbs), non-finite modal configurations show puzzling (to a certain degree, contradictory) word-order properties: while constituents may break the modal verb > non-finite verb cluster (2a), the non-finite complement cannot be fronted (2b) (in contrast to biclausal structures, where fronting of the subjunctive is permitted, cf. (2b’)).

- (2) a. *Pot* *eu* *măine* *citi* *eseul*.

	can.IND.1SG	I	tomorrow	read.INF	essay.DEF
	'I can/am able to read the essay tomorrow'				
b.	* <u>Citi</u>	(eseul)	pot	(eseul).	
	read.INF	essay.DEF	can.IND.1SG	essay.DEF	
b'.	Să citesc	eseul	pot.		
	SUBJ read.SUBJ.1SG	essay.DEF	can.IND.1SG		
	'As for reading the essay, I can (do it)'				

3. Goal of the paper

The goal of the paper is to show that, syntactically, the concept of *complex predicate* is best understood as involving *monoclausality*.

By applying a robust set of syntactic diagnostics, we argue that:

- (i) the non-finite configurations are uniformly monoclausal (as shown by clitic climbing and negation raising, among other diagnostics);
- (ii) in spite of the different morphosyntactic realization of the complements of the modal verb (bare short infinitive, participle, supine), they are structurally isomorphic, in the sense that the non-finite complement projects the same “amount” of syntactic structure;
- (iii) our analysis will show that the reported restructuring effects actually fall out of minimality considerations (locality effects on verb movement).

References

- Abeillé, Anne & Godard, Danièle. 2002. The Syntactic Structure of French Auxiliaries. *Language* 78(3): 404-52.
- Abeillé, Anne & Godard, Danièle. 2003. Les prédicats complexes dans les langues romanes. In *Les langues romanes. Problèmes de la phrase simple*, Danièle Godard (ed), 125-84. Paris: CNRS Éditions.
- Cardinaletti, Anna & Shlonsky, Ur. 2004. Clitic Positions and Restructuring in Italian. *Linguistic Inquiry* 35(4): 519-57.
- Dragomirescu, Adina. 2013. Complex Predicates. In *The Grammar of Romanian*, Gabriela Pană Dindelegan & Martin Maiden (eds), 191-201. Oxford, New York: Oxford University Press.
- Dragomirescu, Adina, Nicolae, Alexandru & Dindelegan, Gabriela Pană. 2022. Complex Predicates. In *The Cambridge Handbook of Romance Linguistics* [Cambridge Handbooks in Language and Linguistics], Adam Ledgeway & Martin Maiden (eds), 571-603. Cambridge: Cambridge University Press, <https://doi.org/10.1017/9781108580410.023>
- Guțu Romalo, Valeria. 1956. Semiauxiliarele de mod. In *Studii de gramatică*, Al. Graur & Jacques Byck (eds). Vol. I. Bucharest: Editura Academiei Române.
- Motapanyane, Virginia & Avram, Larisa. 2011. The Syntax of putea and its Mixed Typology. *Belgian Journal of Linguistics* 14(1): 149-65, <https://doi.org/10.1075/bjl.14.09mot>
- Rizzi, Luigi. 1978. A restructuring rule in Italian syntax. In *Recent Transformational Studies in European Languages*, Samuel Jay Keyser (ed), 113-58. Cambridge, MA: MIT Press.
- Sheehan, Michelle. 2016. Complex predicates. In *The Oxford Guide to the Romance Languages*, Adam Ledgeway & Martin Maiden (eds), 981-93. Oxford: Oxford University Press, <https://doi.org/10.1093/acprof:oso/9780199677108.003.0061>
- Svenonius, Peter. 2008. Complex Predicates and the Functional Sequence. *Nordlyd* 35(1), <https://doi.org/10.7557/12.137>

Exploring the limits of German light verb constructions

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Longstanding interest in the study of German light verb constructions has led to various insights into their morphological, syntactic, and functional-pragmatic characteristics (cf. e.g. van Pottelberge 2001, Storrer 2006; Zeschel 2008; Kabatnik 2020; Heine 2020; Harm 2021; Fleischhauer/Hartmann 2021; Fleischhauer 2022). It is generally accepted that German *Funktionsverbgefüge* (FVG) are characterized by a ‘desemanticized’ verb and an eventive noun that constitutes the core of the predication. There is also a certain consensus that, from a semantic point of view, individual constructions display different degrees of compositionality and idiomaticity. Whereas older studies usually treat German FVG as one broad category (von Helbig 1979; Polenz 1987; Kamber 2008), more recent studies focus on individual (families of) constructions and their specific properties (Zeschel 2008; Kabatnik 2020; Fleischhauer 2022). However, both perspectives are yet to offer a comprehensive and unifying definition of the phenomenon itself or a clear distinction of its subclasses.

The present study will argue that there is no unified category of FVG in German. Taking a usage-based perspective, we will show that we can distinguish between three distinct groups within a wide continuum of constructions previously treated as FVG:

1. schematic and compositional patterns with a ‘function’ verb, such as *zur Aufführung kommen/bringen* ‘to be performed/to perform, lit. to come/bring to the performance’, *in Bewegung kommen/bringen* ‘to get/set in motion’;
2. regular and compositional syntactic combinations of a full verb and its complement(s), such as *unter Einfluss/Kontrolle stehen* ‘to be under influence/control, lit. to stand under influence/control’;
3. lexical(ized), non-compositional, often idiomatic and morphosyntactically irregular constructions, such as *in Anspruch nehmen* ‘to make use of, lit. to take into use’, *in Betrieb setzen* ‘to put into operation’.

Our analysis focuses on combinations of ‘light’ verbs with prepositional phrases and is based on the German data from 1600 to 1900 (DTA-corpus). We will demonstrate that the proposed three groups differ considerably from each other with respect to their semantic and morphosyntactic behaviour. For example, only the first and the third group show signs of reduced syntactic variability and morphosyntactic irregularity. Semantically, it is the third group that shows the greatest degree of idiomaticity and non-compositionality. As for the verbs, only those of the first group are ‘light’ as their semantic and structural properties are reduced when compared to the respective full verb variant. Another constitutive feature is the paradigmatic relationship between verb pairs, such as *kommen* and *bringen*. The verbs in the second group, on the other hand, are usual full verbs, and the verbs in the third group are incorporated into a complex lexical item. The proposed three groups also differ with respect to frequency: the structures of the first group occur with high type frequency but various degrees of token frequency; the structures of the second group are relatively low in both type and token frequency; the structures of the third group are low in type frequency but high in token frequency.

We will model the heterogeneous category of German FVG around these three construction types as the most distinct poles of a multidimensional continuum, and we will argue that this continuum is strongly motivated by synchronic variation and the diachronic development of these constructions.

References

- Fleischhauer, Jens. 2022. stehen unter-Funktionsverbgefüge und ihre Familien. *Zeitschrift für germanistische Linguistik* 50 (2): 247–288.
- Fleischhauer, Jens & Stefan Hartmann (2021): The emergence of light verb constructions: A case study on German kommen 'come'. In: *Yearbook of the German Cognitive Linguistics Association* 9/1, 135–156.
- Harm, Volker. 2021. *Funktionsverbgefüge des Deutschen: Untersuchungen zu einer Kategorie zwischen Lexikon und Grammatik*. Berlin, Boston: De Gruyter.
- Heine, Antje. 2020. Zwischen Grammatik und Lexikon. Forschungsgeschichtlicher Blick auf Funktionsverbgefüge. In Sabine De Knop & Manon Hermann (Hrsg.), *Funktionsverbgefüge im Fokus*, 15–38. Berlin/Boston: Walter de Gruyter.
- Helbig, Gerhard. 1979. Probleme der Beschreibung von Funktionsverbgefügen im Deutschen. *Deutsch als Fremdsprache* 16: 273–285.
- Kabatnik, Susanne. 2020. *Leistungen von Funktionsverbgefügen im Text. Eine korpusbasierte quantitativ-qualitative Untersuchung am Beispiel des Deutschen und Polnischen*. Tübingen: Narr.
- Kamber, Alain. 2008. *Funktionsverbgefüge – empirisch. Eine korpusbasierte Untersuchung zu den nominalen Prädikaten des Deutschen*. Tübingen: Max Niemeyer.
- Pottelberge, Jeroen Van. 2001. *Verbonominale Konstruktionen, Funktionsverbgefüge: vom Sinn und Unsinn eines Untersuchungsgegenstandes*. Heidelberg: Winter.
- Polenz, Peter von. 1987. Funktionsverben, Funktionsverbgefüge und Verwandtes: Vorschläge zur satzsemantischen Lexikographie. *Zeitschrift für Germanistische Linguistik* 15 (2): 169–189.
- Storrer, Angelika. 2006. Zum Status der nominalen Komponenten in Nominalisierungsverbgefügen. In: Breindl, Eva / Lutz Gunkel / Bruno Strecker (ed.): *Grammatische Untersuchungen, Analysen und Reflexionen*. Festschrift für Gisela Zifonun. Tübingen: Narr, 275–296.
- Zeschel, Ame. 2008. Funktionsgefüge als Idiomverbände. In: Fischer, Kerstin & Anatol Stefanowitsch (ed.): *Konstruktionsgrammatik II. Von der Konstruktion zur Grammatik*. Tübingen: Stauffenburg, 263–278.

The predictive function of Baniwa classifiers

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Keywords: prediction, response time, classifiers, Baniwa, Arawakan languages

Listeners use a multitude of linguistic cues to predict upcoming language features and structures. One such cue is *classifiers*, i.e., morphemes that impose a classification on nouns based on semantic features (Aikhenvald 2000, Seifart 2010). Although classifiers are found in a fourth of the world's languages (Allasonnière-Tang et al. 2021), their predictive potential has only been investigated in major East Asian languages: Japanese (Mitsugi 2020) and Mandarin Chinese (Klein et al. 2012, Deng et al. 2022, Lau et al. 2015).

We investigated the predictive function of classifiers in Baniwa [bwi], an Arawakan language of Northwest Amazonia. Baniwa has 53 classifier suffixes (Cronhamn in prep.) obligatorily marked in several morphosyntactic contexts, including numerals. Numerals precede nouns in the noun phrase (1), qualifying classifiers marked on numerals as possible predictive cues of upcoming nominal referents. The classifiers mainly encode physical shape. A generic classifier, *-da*, contrasts with other classifiers in being compatible with a much larger and more diverse set of nouns.

- (1) *apá-da* *ienipétti*
 one-CLF.GENERIC child
 'one child'

We investigated whether speakers of Baniwa use classifiers marked on numerals as cues to following nouns. 20 native speakers took part in a lexical choice response time study (8 female, mean age 43). The experiment was designed in Psychopy and run with over-ear headphones in São Gabriel da Cachoeira (Brazil). Instructions were given in Portuguese and/or Baniwa. The participants listened to numeral-classifier-noun phrases while seeing a 'target' and a 'competitor' image on the screen. The target image depicted the spoken noun while the competitor image depicted either 1) a noun taking a different classifier (*classifier-informative condition*) or 2) a noun taking the same classifier as the target noun (*classifier-uninformative condition*) (Mitsugi 2020, Lau et al. 2015). Participants were asked to select which image the phrase referred to by pressing different keys.

We hypothesized that 1) response times would be faster in the classifier-informative condition because listeners could use the classifier to pre-activate semantic features of the following referent (Mitsugi 2020, Lau et al. 2015) and 2) classifiers that are more constraining regarding which nouns can follow result in faster response times (Deng et al. 2022). Classifiers were divided into two groups based on their hypothesized usefulness as predictors of upcoming nouns: *shape* (more constraining) and *generic* (less constraining). In a separate model, the degree of constraint was operationalized as *entropy*, a measure of uncertainty.

The results were in line with our hypotheses. Listeners responded faster when classifiers were informative about noun identity than when they were uninformative. Further, more constraining classifiers resulted in faster response times.

The findings indicate that Baniwa classifiers can help listeners keep up with a rapidly unfolding speech signal by hinting at semantic features of upcoming referents. Together with similar observations in Japanese and Mandarin Chinese, this adds a new time-dependent dimension to the function of classifiers cross-linguistically. Not only are they used to organize nouns in the lexicon, but they also have a predictive function in the sense that they facilitate the identification of referents in the dynamic process of speech perception.

References

- Aikhenvald, Alexandra (2000), *Classifiers: A Typology of Noun Categorization Devices*. Oxford University Press: Oxford.
- Allasonnière-Tang, Marc et al. (2021), Expansion by migration and diffusion by contact is a source to the global diversity of linguistic nominal categorization systems, *Humanities and Social Sciences Communications* 8(1): p. 331.
- Cronhamn, Sandra (in prep.), *A grammar of classifiers in Baniwa*. Doctoral dissertation, Lund University.
- Deng, Xizi et al. (2022), Contextual effects on spoken word processing: An eye-tracking study of the time course of tone and vowel activation in Mandarin, *Journal of Experimental Psychology: Learning, Memory and Cognition*.
- Huettig, Falk et al. (2010), Do language-specific categories shape conceptual processing? Mandarin classifier distinctions influence eye gaze behavior, but only during linguistic processing, *Journal of Cognition and Culture*, 10(1-2): p. 39-58.
- Klein, Natalie M. et al. (2012), Classifying and massifying incrementally in Chinese language comprehension, in D. Massam (ed), (2012), *Count and Mass Across Languages* Oxford: Oxford University Press.
- Lau, Elaine and Grüter, Theres (2015), Real-time Processing of Classifier Information by L2 Speakers of Chinese, in E. Grillo, and K. Jepson (eds), (2015), *Proceedings of the 39th annual Boston University conference on language development*: pp. 311-323. Somerville, MA: Cascadilla Press.
- Mitsugi, Sanako (2020), Generating predictions based on semantic categories in a second language: A case of numeral classifiers in Japanese, *International Review of Applied Linguistics in Language Teaching*, 58(3): p. 323-349.
- Seifart, Frank (2010), Nominal Classification, *Language and Linguistics Compass* 4: p. 719-736.

Functional overlaps of perfective present and future in Slavic: A usage-based approach

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Keywords: tense, aspect, Slavic, non-assertive use, corpus linguistics

Slavic languages display a stem-based perfective vs imperfective aspect distinction, but their verbal systems differ (Wiemer, Seržant 2017). South and North Slavic languages split in the non-past domain: South Slavic languages distinguish between present and future tenses morphologically for both aspects, while North Slavic languages use future auxiliaries only with imperfective stems, whereas perfective stems by default express future tense in their non-past forms (PFV.PRS).

We investigate whether this morphological contrast between present and future tenses has consequences for the functions assigned to each aspect-tense combination. We propose a usage-based account with corpus data from Russian, Bulgarian, Slovene and Czech, guided by (a) clear-cut distinctions concerning crucial notions and (b) acknowledged findings (Wiemer 2022).

Ad (a),

- we define ‘future’ as reference, by a regular form of a predicate, to a single situation located after the relevant reference interval;
- narrative use differs from ‘non-assertive’ propositions, which remain inaccessible for “truth-value checks” (Nikolaeva 2013). Both cancel the relation to utterance time, but narrative use highlights chains of single events (Fleischman 1990), whereas non-assertive propositions surface in (i) habitual, (ii) non-deontic modal, (iii) certain conditional, and (iv) directive contexts.

Ad (b),

- regardless of its role for denoting future, PFV.PRS marks non-assertive propositions in all (North and South) Slavic languages;
- however, the “tolerance” for PFV.PRS referring to habitual situations decreases from west to east (Dickey 2000);
- concomitantly, the western part of Slavic (e.g., Czech, Slovene) allows for narrative use of PFV.PRS, the eastern part (e.g., Russian, Bulgarian) does not.

Thus, the aforementioned North-South split in future marking does not correlate with the inner-Slavic distribution of functions mentioned under (b); see Table 1.

Table 1.

	PFV.PRS		
	≠ pfv. future?	narrative present?	non-assertive propositions?
North			
Russian (East)	no	no	yes
Czech (West)	no	yes	yes
South			
Slovene (West)	yes	yes	yes
Bulgarian (East)	yes	no	yes

We approach the inner-Slavic distribution of PFV.PRS and PFV.FUT by analyzing comparable random samples of PFV.PRS uses drawn from contemporary corpora, with additional samples of PFV.FUT for Slovene and Bulgarian. Our annotational schema consists of 10 criteria including syntactic features (e.g., clause type), illocution, polarity, and semantic features (e.g., consecutivity), which allow to tell apart habitual, modal and future readings as defined above. All data was checked by two annotators and submitted to multivariate modeling.

Our key questions are:

(a) To which extent does the function range of PFV.PRS differ in Czech and Russian (North Slavic), and does it correspond to the combined functions of PFV.PRS and PFV.FUT in Bulgarian or Slovene (South Slavic)?

(b) Are future readings more easily distinguishable from modal, habitual, and directive readings for PFV.FUT in South Slavic compared to PFV.PRS in North Slavic?

(c) Is there a stronger tendency in Slovene and Czech to use PFV.PRS for habitual situations compared to Bulgarian and Russian?

Preliminary findings suggest that, while the morphological distinction between PFV.FUT and PFV.PRS in South Slavic clearly separates future function and non-assertive propositions, directive use extends across both tense forms. Moreover, irrespective of the morphological distinction between future and present, some cases indicate underspecification of future, habitual, and directive interpretations.

References

- Dickey, Stephen M. (2000), *Parameters of Slavic Aspect (A Cognitive Approach)*, Stanford, CA: CSLI Publications.
- Fleischman, Suzanne (1990), *Tense and Narrativity (From Medieval Performance to Modern Fiction)*, Austin: University of Texas Press.
- Nikolaeva, Irina (2013), Unpacking finiteness, in D. Brown, M. Chumakina, and G. G. Corbett (eds.), (2013), *Canonical Morphology and Syntax*, Oxford: Oxford University Press, 99–122.
- Wiemer, Björn (2022), Delimitation problems in the non-past domain, *Slavistika* 26(1), 63–89.
- Wiemer, Björn, Ilja A. Seržant (2017), Diachrony and typology of Slavic aspect: What does morphology tell us?, in W. Bisang, and A. Malchukov (eds.), (2017), *Unity and Diversity in Grammaticalization Scenarios*, Berlin: Language Science Press, 230–307.

Corpora

Russian National Corpus: <https://ruscorpora.ru/new/>

Czech National Corpus: <https://www.korpus.cz/>

Gigafida 2 (Slovene) via NoSketch Engine: <https://www.clarin.si/noske/sl-ref.cgi/>

BNC: Bulgarian National Corpus:

https://app.sketchengine.eu/#dashboard?corpname=preloaded%2FbulgarianNC_web

A typological study of applicative uses of spatial markers

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Keywords: applicatives, spatial verb morphology, typology, valency, grammaticalization

This paper investigates cross-linguistic evidence for the functional extension of spatial verb morphology into applicative uses. Spatial markers (SM) have only recently been established as a source for applicatives; see Van linden (2022) on Harakmbut and Payne (2021) on Nilotic languages. It is still unknown how widespread this pathway is, and what the main types of variation are. This paper presents the results of a pilot study investigating these issues from a typological perspective in a 75-language sample, compiled using Miestamo's (2005) Genus-Macroarea method.

First, applicative uses are observed for different functional types of SM. A first type concerns *locationals*, as in (1a) from Jarawara (Arauan), where the prefix *ka-* 'inside' changes the semantics of the predicate from 'grasp with hand' (1b) to 'cup in hand' without affecting its valency. Contrariwise, in (1d), the same prefix introduces the applied phrase *otara* 'us' as a core argument; in the non-applicative counterpart (1c), the same participant is coded as an oblique adjunct.

- (1) Jarawara (Dixon 2004: 255, 259)
- a. *sina tama o-ka-na o-ke*
snuff(F) hold 1.SG.A-APPL-AUX 1.SG-DCL.F
'I hold the snuff in my hand.'
- b. *jimawa0 tama o-ne o-ke*
knife(F) hold 1.SG.A-CONT. F 1.SG-DCL.F
'I am holding the knife with my hand.'
- c. [*otaa ni-jaa*] *mee bosa na-maki-hete-ke tasa*
1.EXC PERI 3.NSG.S get.up.early AUX-following-RP.NE.F-DCL.F again
'Then they got up early on us again.'
- d. [*otara*] *mee bosa ka-na-hani*
1.EXC.O 3.NSG.A get.up.early APPL-AUX-IP.NE.F
'They got-up-early-on us.'

In addition to *locationals*, we also find *directionals*, see (2), and *associated motion* markers (e.g. in Tungusic languages (Pakendorf & Stoyanova 2021)); some of these functions may be coded by the same SM (Guillaume & Koch 2021: 7).

Secondly, our dataset shows that SM are not only found in prototypical "P-applicative constructions", where a core argument is added, see (1d), but also in so-called "X-applicatives", where a non-core argument is introduced to the clause, see (3b) (Zúñiga & Creissels 2024: 19). Our dataset also

evidences *redirecting* effects of SM. This is illustrated in (2) from Agar Dinka (Nilotic), where the itive verb form triggers a rearrangement of semantic roles but no valency-change; it causes the object to shift from goal ('bird') (2a) to moving theme ('stone') (2b) (Payne 2021: 719).

(2) Agar Dinka (Andersen 1992-1994: 10)

a. *d̪ɔk à-bòk dít*
 boy DCL-throw bird
 'The boy is throwing at the bird.'

b. *d̪ɔk à-bóok doòot*
 boy DCL-**throw:ITV** stone
 'The boy is throwing a stone thither.'

Thirdly, in terms of the semantic role of the applied phrase, we find that it is often a locative participant, as is expected from the (original) spatial meaning of the marker, but not necessarily so. In (3b) from Dagik (Kordofanian), the suffix *-t:ε* 'towards' introduces the landmark 'room', while in (1d), the prefix *ka-* introduces a maleficiary. More generally, we will investigate whether Peterson's (2007: 229) hierarchy of semantic roles of applied phrases can be upheld.

(3) Dagik (Vanderelst 2016: 96)

a. *a-ηɪ b-ɔ-bek:-ɔ*
 REF-1.SG CL-PM-bath_o.s.-FV(-PFV)
 'I bathed.'

b. *a-ηɪ b-ɔ-bek:-ɔ-t:ε* [*ri=g-əðu*]
 REF-1.SG CL-PM-bath_o.s.-FV-(PFV.)APPL LOC=CL-room
 'I bathed in the room.'

Harmonized abbreviations

A	transitive subject	FV	final vowel	PFV	perfective
APPL	applicative	IP	immediate mood	PM	predicative marker
AUX	auxiliary	ITV	itive	REF	referential marker
CL	class marker	LOC	locative	RP	recent past
CONT	continuous	NE	non-eyewitness	S	intransitive subject
DCL	declarative	NSG	non-singular	SG	singular
EXC	exclusive	O	transitive object	1, 3	first, third person
F	feminine	PERI	peripheral		

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References

- Andersen, Torben (1992-1994), Morphological stratification in Dinka: On the alternations of voice quality, vowel length and tone in the morphology of transitive verbal roots in a monosyllabic language, *Studies in African Linguistics* 23 (1), 1–63.
- Dixon, Robert M. W. (2004), *The Jarawara Language of Southern Amazonia*, Oxford University Press.
- Guillaume, Antoine & Harold Koch (eds.) (2021), *Associated Motion*, Berlin: Mouton de Gruyter.
- Miestamo, Matti (2005), *Standard negation*, Berlin: Mouton de Gruyter.
- Pakendorf, Brigitte & Natalia Stoyanova (2021), Associated motion in Tungusic languages: a case of mixed argument structure, in A. Guillaume & H. Koch (eds.), (2021), *Associated Motion*, 855–898, Berlin: Mouton de Gruyter.
- Payne, Doris L. (2021), The extension of associated motion to direction, aspect and argument structure in Nilotic languages, in A. Guillaume & H. Koch (eds.), (2021), *Associated Motion*, 695–746, Berlin: Mouton de Gruyter.
- Peterson, David A. (2007), *Applicative constructions*, Oxford University Press.
- Vanderelst, John (2016), *A Grammar of Dagik*, Köln: Rüdiger Köppe.
- Van linden, An (2022), Spatial prefixes as applicatives in Harakmbut, in S. Pacchiarotti & F. Zúñiga (eds.), (2022), *Applicative morphology: Neglected syntactic 18 and non-syntactic functions*, 129–159, Berlin: Mouton de Gruyter.
- Zúñiga, Fernando & Denis Creissels (2024), *Applicative Constructions in the World's Languages*, Berlin, Boston: Mouton de Gruyter.

Negative participles: what people think they do vs. what they really do

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Keywords: participles, negation, clause combining, relative clauses, Uralic languages

As it is typical of non-finite forms, participles often show non-standard ways of expressing negation (see Shagal 2019: 175–184 for a cross-linguistic overview). One of the options is the use of specialized forms, that is, *negative participles*. In line with the pattern observed for main clause negation (Miestamo 2005: 178–181), these negative forms can sometimes show neutralization. In other words, some of the distinctions available in affirmative forms (e.g. temporal or aspectual) are absent in negative forms, which means that one negative participle commonly acts as a counterpart to several affirmative participles, possibly the entire paradigm; see examples (1)–(3) from Hill Mari:

Hill Mari (Uralic; personal fieldwork)

(1a)	[pört-äštə	älä-šä]	edem	(1b)	[pört-äštə	älä-dämä]	edem
	house-INE	live-PTCP.ACT	man		house-INE	live-PTCP.NEG	man
	'the man who lives in the house'				'the man who doesn't live in the house'		
(2a)	[papi-n	älä-mä]	pört	(2b)	[älä-dämä]	pört	
	granny-GEN	live-PTCP.NACT	house		live-PTCP.NEG	house	
	'the house where granny lives'				'the house where nobody lives'		
(3a)	[tištä	älä-šäšlák]	ädär	(3b)	[tištä	älä-dämä]	ädär
	here	live-PTCP.FUT	girl		here	live-PTCP.NEG	girl
	'the girl who will live here'				'the girl who will not live here'		

The kind of situation attested in Hill Mari is fairly common in Uralic languages in general, and in this study, we analyse the data from four of them (Finnish, Surgut Khanty, Hill Mari, and Meadow Mari) in order to explore the properties of negative participles which often receive very little attention in grammatical descriptions and typological studies.

The study is motivated by an interesting mismatch shown by Uralic negative participles. On the one hand, as illustrated above, these forms are very flexible in terms of their TAM characteristics and relativizing capacity, which is reported by the linguists and acknowledged by the speakers. On the other hand, the actual use of these forms in texts is, in fact, fairly restricted. For example, they tend to lack overt subjects, as illustrated by examples (2a) and (2b) above, and the TAM interpretation of the situation is habitual or potential in most cases. Besides, negative participles are quite often lexicalized to a considerable degree, and they frequently appear in a predicative function or as part of fixed expressions.

Our research is based on primary data collected from several corpora, which contain online interactions, extensive fieldwork materials, as well as published oral texts. Our goal is to reveal and systematize the patterns existing in the real-life use of Uralic negative participles and to propose possible motivations behind these patterns. In our talk, we will show that contributing factors in this domain are quite heterogeneous, and they may include the lexical meaning of the verb stems, the frequency of individual forms, the availability of competing interpretations, the pragmatics of negation, and some language-specific properties in the domain of clause combining.

Abbreviations

ACT – active, FUT – future, GEN – genitive, INE – inessive, NACT – non-active, NEG – negation, PTCP – participle

References

- Miestamo, Matti (2005), *Standard negation: The negation of declarative verbal main clauses in a typological perspective* (Empirical Approaches to Language Typology 31), Berlin: Mouton de Gruyter.
- Shagal, Ksenia (2019), *Participles: A typological study* (Empirical Approaches to Language Typology 61), Berlin: Mouton de Gruyter.

Can tense agree? The case of Sgi Bara

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Keywords: agreement, tense, syntax, focus, Papuan languages

It has been claimed that tense is a purely morphological (or morphosemantic) feature, which does not participate in agreement processes (Kibort 2011; Corbett 2012, 2013). Scholars from a variety of theoretical orientations hold agreement to be a property of phi-features (Adger & Svenonius 2011; Bresnan et al. 2016; Corbett & Bond 2016; Haig & Forker 2018; Polinsky 2016; Wechsler 2021), and, in some frameworks, also case features (Borsley 2016; Bresnan et al. 2016; Sadler 2016). However, in Sgi Bara [jil], a language of the Rai Coast branch of the Madang family of Trans New Guinea (Pawley & Hammarström 2018), there is a focus construction that appears to contradict these claims. This paper presents an analysis of that construction, and concludes that, in Sgi Bara, tense is a morphosyntactically active agreement feature. This has important implications for our theory of features and agreement.

The construction in question consists of a focus marker placed after a noun phrase, and it marks what Lambrecht (1994) calls *argument focus*: the focus-marked noun phrase is the only new information in the clause. In addition, this marker can only occur on arguments with certain semantic roles (agent, instrument, source, and goal). The focus marker agrees with two separate controllers, and it agrees for three separate features: it agrees with the subject in person and number, and it agrees with the verb in tense. In (1), *ngas* marks *Kelsi* as focused, but agrees with the subject *nqol* '3DU' in person and number (collapsing the distinction between dual and plural) and with the verb *sari ngan* in tense. In (2), *gib* marks *medi* as focused, but agrees with *yi* '1SG' in person and number and with *so qay* in tense.

- (1) *Nqol* *Kelsi* **ng-as** *sari* *ng-an.*
 3DU Kelsey **FOC.3PL-PRS** search 3PL-PRS
 'They're searching for Kelsey.'
- (2) *Yi* *medi* **gib** *so* *q-ay.*
 1SG greens **FOC.1SG.FUT** go FUT-1SG
 'I'll go (looking) for greens.'

Our concern here is the behavior of tense. I demonstrate that the focus marker in Sgi Bara shows all the hallmarks of typical agreement behavior. The target (the focus marker) inflects for the tense feature, and the controller (clause-level TAM inflection) also inflects for the tense feature. The meaning of the inflection is not relevant to the target; in other words, this is not independent nominal tense (Nordlinger & Sadler 2004), but a purely syntactic operation. It is also not the distributed realization of a clause-level inflectional feature, as has been argued for Kayardild (Kibort 2011; Round & Corbett 2017; but cf. Evans 2003). Finally, I show that the domain of agreement resolution is a single clause; a cleft analysis, which has been proposed for similar constructions in some Daghestanian languages (Kazenin 2003), does not work for this data. I conclude by sketching out the diachronic pathway by which this construction probably emerged, which involves clause chains, switch reference morphology, and a highly flexible word class system.

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References

- Adger, David & Peter Svenonius. 2011. Features in Minimalist syntax. (Ed.) Cedric Boeckx. *The Oxford handbook of linguistic Minimalism* 27–51.
- Bond, Oliver, Greville G. Corbett, Marina Chumakina & Dunstan Brown (eds.). 2016. *Archi: Complexities of agreement in cross-theoretical perspective*. Oxford: Oxford University Press.
- Borsley, Robert D. 2016. HPSG and the nature of agreement in Archi. In Oliver Bond, Greville G. Corbett, Marina Chumakina & Dunstan Brown (eds.), *Archi: Complexities of agreement in cross-theoretical perspective*, 118–149. Oxford: Oxford University Press.
- Bresnan, Joan, Ash Asudeh, Ida Toivonen & Stephen Wechsler. 2016. *Lexical-Functional Syntax*. 2nd edn. Oxford: Wiley-Blackwell.
- Corbett, Greville G. 2012. *Features*. Cambridge: Cambridge University Press.
- Corbett, Greville G. 2013. Canonical morphosyntactic features. In Dunstan Brown, Marina Chumakina & Greville G. Corbett (eds.), *Canonical morphology and syntax*, 48–65. Oxford: Oxford University Press.
- Corbett, Greville G. & Oliver Bond. 2016. Why there are exactly five types of morphosyntactic feature. In Evans, Nicholas. 2003. Typologies of agreement: Some problems from Kayardild. *Transactions of the Philological Society* 101(2). 203–234. <https://doi.org/10.1111/1467-968X.00118>.
- Haig, Geoffrey & Diana Forker. 2018. Agreement in grammar and discourse: A research overview. *Linguistics* 56(4). 715–734. <https://doi.org/10.1515/ling-2018-0014>.
- Kazenin, Konstantin I. 2003. Focus in Daghestanian and word order typology. *Linguistic Typology* 6(3). 289–316. <https://doi.org/10.1515/lity.2003.002>.
- Kibort, Anna. 2011. The feature of tense at the interface of morphology and semantics. In Alexandra Galani, Glyn Hicks & George Tsoulas (eds.), *Morphology and its interfaces*, 171–193. Amsterdam: John Benjamins. <https://doi.org/10.1075/la.178.10kib>.
- Lambrecht, Knud. 1994. *Information structure and sentence form: Topic, focus, and the mental representations of discourse referents*. Cambridge: Cambridge University Press.
- Nordlinger, Rachel & Louisa Sadler. 2004. Nominal tense in crosslinguistic perspective. *Language* 80(4). 776–806. <https://doi.org/10.1353/lan.2004.0219>.
- Pawley, Andrew & Harald Hammarström. 2018. The Trans New Guinea family. In Bill Palmer (ed.), *The languages and linguistics of the New Guinea area: A comprehensive guide*, 21–195. Berlin: De Gruyter Mouton.
- Polinsky, Maria. 2016. Agreement in Archi from a minimalist perspective. In Oliver Bond, Greville G. Corbett, Marina Chumakina & Dunstan Brown (eds.), *Archi: Complexities of agreement in cross-theoretical perspective*, 184–232. Oxford: Oxford University Press.
- Round, Erich R. & Greville G. Corbett. 2017. The theory of feature systems: One feature versus two for Kayardild tense-aspect-mood. *Morphology* 27(1). 21–75. <https://doi.org/10.1007/s11525-016-9294-3>.

- Sadler, Louisa. 2016. Agreement in Archi: An LFG perspective. In Oliver Bond, Greville G. Corbett, Marina Chumakina & Dunstan Brown (eds.), *Archi: Complexities of agreement in cross-theoretical perspective*, 150–183. Oxford: Oxford University Press.
- Troike, Rudolph C. 1981. Subject-object concord in Coahuilteco. *Language* 57(3). 658–673. <https://doi.org/10.2307/414344>.
- Wechsler, Stephen. 2021. Agreement. In Stefan Müller, Anne Abeillé, Robert D. Borsley & Jean-Pierre Koenig (eds.), *Head-Driven Phrase Structure Grammar: The handbook*, 219–244. Berlin: Language Science Press. <https://doi.org/10.5281/zenodo.5543318>.

Exploring ideophones in Cariban languages

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Keywords: ideophones, morphosyntax, corpus linguistics, cariban, comparative linguistics

This study builds upon the preliminary investigation conducted by Gildea (2023), who focused on Werikyana and initiated comparison across Cariban languages, specifically Akawaio, Apalaí, Hixkaryana, Kari'nja, Tiriyo, and Wayana. Gildea identified three morphosyntactic contexts of ideophones in Cariban languages: as an extracausal "color commentary," as an argument of the verb 'to say,' and as uninflected predicates that take core arguments. Gildea's lexical comparison revealed few and uncertain cognates even within closely related languages and suggested asymmetries in the attested types of ideophone usage, with a particular scarcity in Akawaio and Kari'na. We reanalyze data from the same legacy corpora, plus corpora of Yawarana and Ye'kwana, utilizing a more robust methodology, leveraging computer-assisted qualitative and quantitative evaluation of ideophones in corpora.

Preliminary observations from Gildea's study noted substantial differences in density of ideophone usage across languages. However, Gildea's methods were very "quick and dirty", with the counts of ideophones largely based on part-of-speech determinations made by the different primary linguists, who did not all follow the same criteria. In particular, not all sources distinguished between interjections and ideophones, which are similar in lacking morphology; those who did used different properties to distinguish the categories. In addition, most of the sources (including Gildea, for his own primary data) counted individual iterations of reduplicated ideophones as independent tokens.

In this study, we arrive at more reliable numbers by distinguishing ideophones and interjections semantically (ideophones are depictive and interjections are interpersonal communications), then counting only ideophones in all the corpora. Also, given the prevalence of obligatory reduplication in ideophones in Cariban language Katuena (Smoll 2014), we treat sequences of repeated ideophones as single tokens, a more conservative method of determining ideophone density. With the exception of the 1994 Apalaí corpus, all corpora possess CLDF versions, enabling generation of comprehensive collation of identified ideophones in each language and the application of short Python scripts to facilitate sophisticated statistical analysis. Our study also expands the scope, incorporating two additional corpora, Ye'kwana and Yawarana, aiming to fill existing gaps in the exploration of ideophones within Cariban languages.

This study will also categorize ideophone usage based on morphosyntactic context, measuring not just frequency of context in each language, but also allowing statistical correlation of individual ideophones with grammatical context in each language.

Our proposed computer-assisted approach is poised to offer a more nuanced understanding of ideophones in Cariban languages, presenting a methodological advancement over manual studies and providing a foundation for uncovering semantic distinctions, reduplication patterns, and potential morphosyntactic innovations within this linguistic domain.

References

- Gildea, Spike (2023). "Ideophones in Werikyana and other Cariban languages". Talk held at Amazónicas IX. Universidad de los Andes, Bogotá.
- Smoll, Laetitia (2014). "Me: ruru, foku and tjitowif: An analysis of ideophones in Katuena (Tunayana)". MA thesis. University of Leiden.

How prototypical are adversative passives as passives? The case of the *bâ'* construction in Sgaw Karen

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A purported passive often termed adversative passive is known in many East and Southeast Asian languages, including well-known cases in Mandarin, Vietnamese, and Thai. Sgaw Karen, an isolating Tibeto-Burmese language spoken in Myanmar and Thailand, features a construction which matches the characteristics typically associated with adversative passives: a verb (*bâ'* 'encounter') expressing some type of experience and an adversely affected experiencer subject. This study asks how passive-like an adversative passive like the *bâ'* construction can be considered. Using both elicited and naturally occurring utterances, complemented with data from written sources, it is shown that the *bâ'* construction is semantically passive-like, but morpho-syntactically not.

The Sgaw Karen sentences in (1) and (2) express similar situations. In the first, the agent occurs as subject, while in the second, the affectee is subject while the agent is optionally expressed by an oblique NP.

- (1) ʔəwɛ.θêʔ mà-θī sò.pà
 3PL make-die king
 'They killed the king.'
- (2) sò.pà bâʔ tâ mà-θī ʔò (lə ʔəwɛ.θêʔ)
 king encounter IMPRS make-die 3SG by 3PL
 'The king was killed (by them).'

Most functional studies of passives, a recent one being Zúñiga & Kittilä (2019), posit a transitive base clause from which an intransitive passive clause is derived through intransitivization in the form of formal coding in the verb complex. Since adversative passives arguably lack intransitivizing coding, their recognition as passives has been called into question. For these reasons, Ratanakul states that "a real passive voice is impossible in [Sgaw Karen]" (Ratanakul 1981: 164). This analysis of the *bâ'* construction reaffirms these doubts.

Assuming a prototypical approach as suggested by Shibatani (1985), in which agent-defocusing is regarded as the most fundamental characteristic of passive constructions, adversative passives can be regarded as non-prototypical passives. However, agents are often defocused in morpho-syntactically distinct ways within one language. The present study therefore questions the usefulness of widening the term passive to include agent-defocusing devices such as Asian-type adversative passives.

Another reason for not considering adversative passives on a par with formally coded passives is the comparatively restricted distribution of the former in most concerned languages. First, they are typically found only in certain text genres. Second, diachronic developments of adversative passives indicate that once marginal constructions have become considerably more frequent due to the influence of Indo-European languages (in the case of Sgaw Karen, English). In Sgaw Karen, this can be observed by comparing 19th century texts with modern texts. In conclusion, it is found that the differences between passives and adversative passives outweigh their similarities.

References

- Ratanakul, Suriya (1981), Transitivity and causation in Sgaw Karen, in A. Gonzalez and D. Thomas (eds), (1981), *Linguistics Across Continents: Studies in Honor of Richard S. Pittman*, Manila: Summer Institute of Linguistics and Linguistic Society of the Philippines, 156–179.
- Shibatani, Masayoshi (1985), Passive and related constructions: a prototype analysis. *Language* 61, 821–848.
- Zúñiga, Fernando and Seppo Kittilä (2019), *Grammatical voice*, Cambridge: Cambridge University Press.

What belongs, and what does not belong, to the Talmyan typology of event integration?

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Keywords: event integration, incremental paths, framing alternations, path-manner complementarity

The Talmyan typology of event integration has spawned a large body of research as well as some important discussion touching on constraints on lexicalization (Levin & Rappaport Hovav 2019), conceptualization of motion events and cognitive saliency (Slobin 2006), typological parametrization of framing alternations (Croft et al. 2010), etc. Its scope is often narrowed as against Talmy's proposals (Talmy 2000). Motion events loom largely and for many researchers the Talmyan typology seems to reduce to spatial motion. The more abstract notion of incremental paths has received its share of attention in more formally oriented work. Talmy's proposal accounts for the encoding of incremental paths at several levels of semantic structure, as shown by his discussion of temporal contouring, referring to alternations where one incremental path generates a temporal contour serving as a ground entity for another incremental path and another alternation (Spanish *Terminé de escribir la carta* vs German *Ich habe den Brief fertiggeschrieben*). Another incremental path (towards a normative value of some parameter of an event) grafted onto a first-level incremental path is discussed by Holvoet (2023) with reference to a verb-framed construction encoding 'excessive degree' in Lithuanian:

- (1) Lithuanian
- | | | | |
|-----|------------------------------------|------------------|----------------|
| (a) | <i>Pa- aukšt-in-o</i> | <i>iš-kirsti</i> | <i>langus.</i> |
| | PFX-high-CAUS.PST.3 | out-cut.INF | window.ACC.PL |
| | 'He cut out the windows too high.' | | |
| (b) | <i>Per aukštai</i> | <i>iš-kirto</i> | <i>langus.</i> |
| | too high.ADV | out-cut.PST.3 | window.ACC.PL |
| | 'id.' | | |

My aim is to put discussions on Talmy's typology in a proper perspective by pointing out that it involves structural constraints extending beyond the spatial domain and other more restricted domains covered by most current discussions. The Talmyan typology can then be defended against the claim that it is epiphenomenal (Beavers et al. 2010, Levin & Rappaport Hovav 2019). This broader perspective also compels us to explicitly address the question what belongs, and what does not belong, to the Talmyan typology. Conceptualization in terms of an incremental path seems crucial, but it is not clear that every type of alternation discussed by Talmy himself consistently involves paths. By circumscribing the domain of framing alternations while extending the scope of research beyond spatial-motion constructions we may gain new insights into the basic conceptual underpinnings of the Talmyan typology.

References

- Beavers, John, Beth Levin & Shiao Wei Tham (2010), The typology of motion expressions revisited. *Journal of Linguistics* 46.2, 331–377.
- Croft, William, Jónhanna Barðdal, Willem Hollmann, Violeta Sotirova & Chiaki Taoka (2010), Revising Talmy's typological classification of complex event constructions. In H. Boas (ed.), *Contrastive Studies in Construction Grammar*. Amsterdam / Philadelphia: Benjamins, 210–236.

- Holvoet, Axel. 2023. A hitherto unnoticed verb-framed construction in Lithuanian and the typology of event conflation, *Studies in Language* 47.3, 571–598.
- Levin, Beth & Malka Rappaport Hovav (2019), Lexicalization patterns. In R. Truswell (ed.), *The Oxford Handbook of Event Structure*. Oxford: Oxford University Press, 395–425.
- Slobin, Dan (2006), What makes manner of motion salient? Explorations in linguistic typology, discourse, and cognition, in M. Hickman & St. Robert (eds.), *Space in Languages: Linguistic Systems and Cognitive Categories*. Amsterdam / Philadelphia: Benjamins, 59–81.
- Talmy, Leonard (2000), A typology of event integration, in L. Talmy, *Toward a Cognitive Semantics 2*, Cambridge MA: MIT Press, 213–288.

Status of the Action Noun in Slavic Languages (Ukrainian, Russian, Polish, Bulgarian)

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Keywords: Action Noun, Verb, grammatical status, functional status, aspect

The focus of study is on action nouns (ANs) (such as Ukr. *čytannja* – ‘reading’). The grammatical status of this class of words varies greatly in different languages: AN can be part of the verb paradigm, have a transitive status between a noun and a verb, or clearly belong to the category of nouns. Despite their common ancient origin and similar morphological structure, Slavic ANs differ significantly in comparative terms in such parameters as preservation / loss of diathetical features, preservation / loss of arguments, (in)ability to take modifiers, preservation / loss of actionality features and the range of aspect functions (see e.g. Koptjevskaja-Tamm 2015; Malchukov 2004). This point has been supported by works on individual Slavic languages (Korytkowska & Małdziewa 2002; Kukla 2013; Marvan 1992; Gradinarova 1999; Pchelintseva 2022). However, in order to get a clear picture of the cross-linguistic variation of Slavic ANs properties and their grammatical status, a comparative analysis of ANs of different Slavic languages using unified criteria is necessary.

Our studies of Russian, Ukrainian, Polish and Bulgarian ANs show that the number of ANs, as well as their retention of verb properties, increases considerably "from east to west" (see also: Dickey 2000). A few facts: 1) Russian ANs are formed only from every 6th verb (33,000 verbs stems correspond to 5,500 ANs), they practically lose aspectual and diathetical characteristics, and are semantically unpredictable; 2) Ukrainian ANs are more productive and regular, they are formed from every 4th verb, about 98% of units retain aspect, but don't retain diathetic properties; 3) 99% of Polish verbs have correlative ANs, nouns with *-nie* (*-cie*) have aspectual pairs, partially retain diathetical properties. See a typical example: one Russian AN which simultaneously relates to verbs of either aspect (e.g., *povtorenie* ‘repetition’) corresponds to two Ukrainian ANs (*povtorennja*/pfv. – *povtorjuvannja*/ipfv.), to two Bulgarian ANs (*povtarjane*/ipfv. – *povtorenie*/pfv. or ipfv.), to two or four Polish ANs (*powtarzanie*/ipfv. – *powtórzenie*/pfv. +/- reflexive marker *się*).

In the comparative analysis of ANs in 4 Slavic languages we use the following parameters:

1) productivity of the formation of ANs (on the material of a continuous dictionary sample of ANs in the languages under study in comparison with the total number of verbal units);

2) formal preservation of aspectual pairedness and diathetical distinctions of ANs (by means of quantitative analysis of the data of a continuous dictionary sample of ANs);

3) correspondence of the range of aspectual functions of AN to the range of aspectual functions of its main verb in terms of their functional and statistical distribution. On the basis of corpus materials, we analyze the use of typical representatives of actionality groups of verbs with paired and unpaired stems and compare them with the use of ANs.

We show that Slavic ANs are located in different places of the conventional scale – "closer to the verb" or "closer to the noun". Thus we reasonably determine their different grammatical and functional status in Slavic linguistic systems in comparative terms.

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References

- Dickey, Stephen M. (2000), *Parameters of Slavic Aspect*, Stanford: CSLI Publications.
- Gradinarova, Alla (1999), *Semantics of Russian and Bulgarian Deverbal Nouns*, Sofia: Eurasia Academic Publishers.
- Koptjevskaja-Tamm, Maria (2015), Action nouns, in P. O. Muller, I. Ohnheiser, S. Olsen, and F. Rainer (eds), (2015), *Word-Formation: An International Handbook of the Languages of Europe*, vol. 2, Berlin / Boston, 1195–1209.
- Korytkowska, Małgorzata, and Wiara Małdziewa (2002), *Od zdania złożonego do zdania pojedynczego (nominalizacja argumentu propozycjonalnego w języku polskim i bułgarskim)*, Toruń: Wyd-wo Uniwersytetu Mykołaja Kopernika
- Kukla, Julia (2013), *Das Verb und sein Abstraktum im Russischen*, München / Berlin: Verlag Otto Sagner.
- Malchukov, Andrej (2004), *Nominalization / verbalization: constraining a typology of transcategorial operations*, München: Lincom Europa.
- Marvan, Jiří (1992), The status of the Ukrainian verbal substantive, *Movoznavstvo* 2, 3–7.
- Pchelintseva, Olena (2022), Aspectual properties of Ukrainian verbal action nouns, *Russian Linguistics* 46, 167–180.

Prepronominal Prefixes in the Trans-Mississippian Languages

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This paper presents a reconstruction of the prepronominal prefixes in the Trans-Mississippian languages, a proposed genealogical grouping of Iroquoian and Caddoan (Chafe 1976, Rudes 1974, Hancock-Teed 2022). The contemporary Trans-Mississippian languages vary greatly in the both the composition and the size of their prepronominal prefix inventories. In terms of templatic positions, these languages range between the single slot of Caddo (Melnar 2004: p. 15) to the ten of the Cahniks branch of Northern Caddoan (Parks & Pratt 2008, Sutton & Mirzayan Forthcoming) with the Iroquoian languages representing the middle ground at four to six positions. In semantics, the prepronominal prefixes cover deictic marking, directionality, number, iterativity, demonstratives, mode, and evidentiality, among other domains. Specific reconstructions are proposed for three proximals, two distals, two modals, a negator, and a polar question marker. The study finds that only the modal markers are projectable to the proto-language as prepronominal prefixes on the verb.

Building on previous, independent reconstructions of Proto-Caddoan (Sutton 2017) and Proto-Iroquoian (Julian 2010), the reconstruction presented here shows that the majority of prepronominal prefixes in the contemporary languages are not projectable back to the proto-language as affixes, but rather as particles. Over time, these particles have become attached to the edges of the verbal complex, with many grammaticalising in the process. Of particular interest is the grammaticalisation path argued to have taken place linking the proto-Trans-Mississippian demonstrative *nV(h/?) (Hancock-Teed 2022) to the participial marker in Northern Caddoan and the particle introducing referring entities in Northern Iroquoian. Evidence is brought showing that many prepronominal prefixes in the contemporary languages have weak fusion and/or weak selectivity, attesting to more recent and ongoing attachment processes. Interestingly, many of those prefixes shared between the Iroquoian and Northern Caddoan languages appear as suffixes in Caddo.

This presentation has three important outcomes for the overall reconstruction of Trans-Mississippian. First, it provides a novel collection of cognates, extending our still immature understanding of sound correspondences between the branches. Second, it expands on the growing clarity in the grammatical reconstruction of (proto-)Trans-Mississippian verbs. It shows that earlier stages of the language family were significantly less synthetic at the left - and possibly the right - edge of the verbal complex. Third, and perhaps most importantly, it shows that Caddo may form a separate branch of the Trans-Mississippian family from its traditional Northern Caddoan relatives based on its innovative morphological structure. In addition to language family-specific outcomes, this study also provides the foundation for further research into the highly understudied history of polysynthesis.

References

- Chafe, Wallace L. 1976. *The Caddoan, Iroquoian, and Siouan Languages*. Vol. State-of-the-Art Reports 3 (Trends in Linguistics). The Hague: The Netherlands: Mouton.
- Hancock-Teed, J Drew. 2022. *Revisiting Iroquoian and Caddoan: Preliminary Comparison from Inflectional and Derivational Morphology*. 42nd Siouan & Caddoan Languages Conference. Charlottesville: USA.
- Julian, Charles. 2010. *A History of the Iroquoian languages*. Winnipeg: Canada: University of Manitoba dissertation.
- Melnar, Lynette R. 2004. *Caddo Verb Morphology*. Chicago: USA: University of Chicago dissertation.
- Parks, Douglas Richard & Lula Nora Pratt. 2008. *A Dictionary of Skiri Pawnee*. Lincoln: USA: University of Nebraska Press.
- Rudes, Blair A. 1974. Sound Changes Separating Siouan-Yuchi from Iroquois-Caddoan. *International Journal of American Linguistics* 40(2). 117–119. <https://doi.org/10.1086/465293>.
- Sutton, Logan. 2017. *Historical Development of the Caddoan Verb*. Society for the Study of Indigenous Languages of the Americas. Austin: USA.
- Sutton, Logan & Armik Mirzayan. Forthcoming. *Language Family Sketch Outline: Caddoan*. In Carmen Dagostino, Marianne Mithun & Keren Rice (eds.), *The Languages and Linguistics of Indigenous North America*, vol. 2. Berlin: Germany: De Gruyter Mouton.

Finnish Structural Case

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Minimalist syntax assigns structural case by functional heads to their complements (Chomsky 2001, Legate 2008), possibly in relation to other case-bearing constituents in their spellout domain (*dependent case*, Marantz 1991, Bobaljik 2008). In Finnish, Accusative would be checked in AspP by a telic Aspect head, while Partitive is checked in a lower projection in the absence of telicity.

In contrast, the *Licensing* approach (Wunderlich 1997, Kiparsky 2001) decomposes case into the relational features [\checkmark H(ighest) R(ole)] and [\checkmark L(owest) R(ole)]. At the level of Abstract Case («Grammatical Relations»), these features distinguish Theta-roles according to their relative depth in Semantic Form. Morphosyntactically, they are assigned to syntactic arguments by case morphology, agreement, and structural positions. A syntactic argument's Theta-role features must unify optimally with its morphosyntactic case features (no feature conflict, the most specific match). The abstract Case features yield the four universal grammatical relations standardly posited in typological work since Dixon 1972. At the morphosyntactic level, the features define a language's inventory of structural cases.

In Finnish, Accusative and Partitive are distinct Abstract Cases. The object of a verb that has an additional lowest argument, the Degree argument, bears abstract Accusative Case [$-$ HR, $-$ LR]. The Degree argument is related to a conventionally fixed standard of achievement. It may be implicit, or specified by a VP adverb like *läpi* 'through' or by a resultative phrase like *kuoliaaksi* 'to death'. Verbs lacking a Degree argument have Partitive objects. Overt adverbs and resultative phrases saturate a Degree argument, hence always have Accusative objects. E.g.:

- (1) *shoot* (atelic): $\lambda y \lambda x$ (SHOOT (x y)) — y is [$-$ HR, $+$ LR] (Partitive)
shoot (telic): $\lambda d \lambda y \lambda x$ (SHOOT (x y d) \wedge d \checkmark \checkmark _{shoot}) (y is [$-$ HR, $-$ LR] (Accusative))

(2) *Morphological cases*

1. Nominative/Agreement [],
2. Accusative [$-$ HR, $-$ LR] (only in pronouns),
3. Partitive [$+$ LR],
4. Genitive [$-$ LR].

I summarize eight empirical arguments in support of the Licensing approach, roughly in order of increasing complexity and interest.

1: Accusative and Partitive objects do not differ syntactically in word order or constituency.

2: Accusative and Partitive objects can be conjoined, requiring Co-ordinate Structure Constraint violations: *Lue- n lehde- n ja kirja- a* 'I read a/the newspaper (Acc) and a/the book (Part)' [finishing the paper but maybe not the book]. The object of the first conjunct would have to raise to TP. *Note: we omit full glosses of some examples here to save space; they will be supplied in the handout.*

3: Infinitives lack aspect morphology yet distinguish Accusative and Partitive objects. *Nyt on aika luke-a lehti ja kirja-a (Part)*. 'Now it's time to read a/the paper (Acc) and a/the book (Part)' [finishing the paper but maybe not the book]

4: Certain bounded atelic predicates ("quasi-resultatives") have *Accusative* objects.

(3) Minu-lla on sinu-t / #sinu-a.
I-Adess be-3Sg you-Acc / you-Part
'I have you.

Verbs of this class receive a Degree argument by default, but its absence, marked by a partitive object, gives rise to special gradable readings, usually involving a temporal limit:

[Luostari omist-i kartano-a (Part.) vuoteen 1764 saakka.
The monastery owned the estate until the year 1764.

5: Degree achievements: measure phrases make predicates telic, *without affecting object case*. (3) is telic (lengthening by a fixed amount) but gradient (additional shortening can make the skirt shorter, but not necessarily short), correctly predicting Partitive.

(4) Räätäli lyhens-i hamet-ta vähän / senti-n verran (#tunni-n/tunni-ssa)
tailor shorten-Past3Sg skirt-Part a little/ cm.-Gen by (hour-Acc/hour-Iness)
'The/a tailor shortened the skirt a little / by a centimeter (#for an hour / in an hour).'

6: Degree adverbs and semantically equivalent resultatives have different effects on object case. Even a degree adverb that expresses a "complete" change allows Partitive case. This indicates *structural* rather than semantic conditioning. Although (a) and (b) are synonymous, the Degree phrase *kuoliaa-ksi* "to death" triggers Accusative, whereas the adverb *kuolettavasti* "mortally" allows Partitive.

(5) Schauman ampu-i Bobrikoffi-n(*-a) kuoli-aa-ksi. BUT: S. ampu-i B-a(*-n) kuole-tta-va-
Schauman(Nom) shoot-Past.3Sg Bobrikoff-Acc -*Part to death. BUT: 'S. shot B-Part -*Acc mortality

7: Unification automatically matches morphosyntactic case to abstract Case.

- Morphological accusative [-HR, -LR] (available only in the pronominal paradigm) is the best match for abstract [-HR, -LR].
- Otherwise (in nouns) genitive [-LR] is the best match.
- Partitive [+HR] is the best match for abstract Partitive [-HR, +LR].
- In participial clauses nonfinite verbs can't agree. The genitive [-LR] is the best match for their subjects.
- Agreement [] (nominative) is obligatory for finite verbs, so their transitive [+HR, -LR] subjects can't be licensed by genitive [-LR]; they must be licensed by nominative/agr.

8: Minimalism treats the contextual homonymy of "accusative" case with genitive -n and nominative -H as accidental, problematic since the some of the conditioning context is unbounded. Licensing derives it directly from unification, including the hitherto unexplained *Jahnsson's Rule*.

A grammaticalization analysis of the English differential eventive prefix *out-*

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Keywords: morphosyntactic change, complex verbs, path and scale, grammaticalization from an ablative marker to a comparative standard marker, English

In (1), the verb expresses that Mary exceeded Fred by running. The *by* phrase measures the differential between the maximal and minimal degrees embodied by the syntactic arguments.

(1) *Mary outran Fred by two meters.* ----Fred-----Mary-----> distance

A rigorous inquiry is underway concerning the semantics, argument structure, and base selection of the differential eventive prefix *out-* (Ahn 2022, Kotowski 2023, Togano 2024). However, how it arose from the original spatial item remains unexplained. We address this issue using the framework of Los et al. (2012), a diachronic study of Germanic separable and inseparable complex verbs (SCVs, ICVs).

According to Los et al., newer ICVs (prefix + verb) were grammaticalized from SCVs (particle + verb). The process may start with resultative SCVs or with adpositional SCVs. Applying this theory to our data, we observe that original spatial verbs based on unaccusative motion verbs, such as *out-springen*, *out-rennen* in Middle English, were indeed polysemous, with *out* expressing Goal/result ('spring out', 'run out') or Source/ablative ('spring out of sth,' 'run away from sth/sb'). In the first sense, *out* is a resultative predicate. In the second sense, *out* is an incorporated preposition that externally selects a source complement, as in (2a). The latter type naturally changed into ablative ICVs such as (2b).

(2) a. a1350 *be harnes **out sprange** be harnepan* 'The brains sprang out of the brainpan.'
 b. 1621 *A.. second Brother liued, whose ill **out-sprung** ..the elder.*

Comparing (2a) with (2b), we observe a first semantic change in the type of the complement. In (2a), the underlined source item is three-dimensional, the same selectional property as the original adposition *out (of)*; however, it is obscure in (2b).

We submit that the ablative construction in (2) is the source of the differential construction in (1) and that the nature of the change is grammaticalization dubbed as "Ablative > Standard Marker in Comparative" in Heine and Kuteva (2002: 30). This is an entirely new hypothesis in the literature dealing with *out-*. To support it, we provide three empirical arguments. First, ablative markers often change into comparison standard markers in many languages, including Greek, Japanese, Latin, and OE (Stassen 1985, Shibasaki 2023, among others). Crucially, (2) constitutes a licit input to this change because it contains *out*, an ablative marker, within. Second, the semantic bleaching of the ablative marker is fully understandable given the formal correspondence between spatial paths and property scales (Zwarts and Winter 1997). Concretely, a source-specified path can be converted to a lower-bound property scale. This explains why *Fred* marks the minimal degree standard in (1) and why the entire semantics changed from [exit (the source)] to [exceed (the standard)]. Third, our data containing *out-rennen* and its descendent suggest that the change from the ablative SCV/ICV to the differential ICV was mediated by another type, [escape from (sth, sb)]:

(3) a1616 *If these men have defeated the Law, and outrunne Natiue punishment.*

In contrast to (2), the escapee subject in (3) is volitional. Moreover, the object can also be volitional when it is an animate pursuer. For instance, the expression *outrun the constable* is ambiguous between ‘the subject ESCAPE from the constable by running’ and ‘the subject EXCEED the constable in running.’ This intermediate step seems crucial for the semantic extension of the ICV from EXIT to EXCEED.

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References

- Ahn, Byron (2022), Mapping *out-* argument structure. *Syntax* 25, 417-465.
- Heine, Bernd and Tania Kuteva (2002), *World Lexicon of Grammaticalization*, Cambridge: Cambridge University Press.
- Kotowski, Sven (2023), Modeling locative prefix semantics. A formal account of the English verbal prefix *out-*. *Morphology* 33, 115-152.
- Los, Bettelou, Corrien Blom, Geert Booij, Marion Elenbaas, and Ans van Kemenade (2012), *Morphosyntactic Change: A Comparative Study of Particles and Prefixes*, Cambridge: Cambridge University Press.
- Shibasaki, Reijirou (2023), From comparative standard marker to comparative adverb: On the contact induced (de)grammaticalization of *yori* in Modern through Present Day Japanese, in S. Hancil and V. Tantucci (eds.), (2023), *Different Slants of Grammaticalization*, Amsterdam: John Benjamins, 20-49.
- Stassen, Leon (1985), *Comparison and Universal Grammar*, Oxford: Blackwell.
- Togano, Yuri (2024), A word-based approach to the so-called category-changing usage of the English derivational prefix *out-*, *Languages* 9, no. 5: 172. <https://doi.org/10.3390/languages9050172>
- Zwarts, Joost and Yoad Winter (1997), A semantic characterization of locative PPs, in A. Lawson (ed), (1997), *Semantics and Linguistic Theory* 7, Ithaca, NY: CLC Publications, 294-311.

GS Discourse markers

The evolution of *per cui* in Italian: from oblique relative to conclusive connective

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Keywords: diachronic change; language variation; relative clauses; connective; subordination, grammaticalization

In Contemporary Italian, *per cui* (lit. ‘for which’) can be employed in, at least, three ways. In (1) *per cui* introduces an oblique relative clause, headed by any noun. In (2) it follows a head noun whose lexical meaning is ‘reason’, which anaphorically refers to a preceding clause and thus functions as an encapsulation. In (3) *per cui* is not preceded by any head noun and is used as an interclausal connective meaning ‘therefore’, introducing the consequence of some preceding statement.

(1) *Sono attualmente in cassa integrazione straordinaria a causa del fallimento della ditta per cui lavoravo come impiegato.*

‘I am currently on layoff due to the bankruptcy of the company **for which** I used to work as employee.’

(2) *[Uno smanettone senza connessione a Internet è perso], ragion per cui è fondamentale reperire un accesso a Internet economico e affidabile.*

‘A tinkerer without an internet connection is lost, (which is the) **reason why** it is crucial to find affordable and reliable internet access.’

(3) *Il messaggio inoltre è compresso, per cui è illeggibile anche senza essere cifrato.*

‘Furthermore, the message is compressed, **therefore** it is unreadable even if it is not encrypted.’
(CORIS corpus)

The aim of this paper is to account for the syntactic and semantic diachronic change that led to the contemporary layering situation. Our analysis is based on a corpus of Italian texts (13th-21st centuries, ~ 10 million words) balanced across centuries. To delve deeper into the 19th-20th centuries, we also employed the DIACORIS Corpus (Tamburini 2022), specifically designed to analyze this period. To shed light on the behavior of *per cui* in spoken Italian and uncover uses that might not be visible in written texts, we also included data from the KIParla Corpus (Ballarè et al. 2022).

To account for the successive stages and for the gradualness of the grammaticalization process (Heine 2002, Lehmann 2015), each extracted occurrence of *per cui* is coded according to a series of parameters: identifiability of the head noun (Y/N), lexical element of the head noun, scope of *per cui* (simple noun phrase / noun phrases working as an anaphoric encapsulation / full clause).

As a result, we identified three successive stages. The oblique relative *per cui* (Stage 1, ex. (1)) gradually starts to be systematically associated to some antecedent NP meaning ‘reason’ to convey a conclusive meaning (Stage 2, bridging context, ex. (2)). This allows for the omission of the head noun, while retaining the conclusive meaning, thus leading to a scope expansion of *per cui* and to a blurring of the identification of the causal reasoning's antecedent (Stage 3, ex. (3)). The last stage marks a shift from a backward-projecting (anaphoric) relative construction (‘for which’) to a forward-projecting conclusive connective meaning ‘therefore’.

Stage 1	[clause [NP [per cui Rel_clause]]]
Stage 2	clause, <- [NP_reason [per cui Rel_clause]]_therefore
Stage 3	clause, --> [per cui]_therefore clause

References

- Ballarè, Silvia, Eugenio Goria and Caterina Mauri (2022), *Italiano parlato e variazione linguistica. Teoria e prassi nella costruzione del corpus KIParla*, Bologna: Pàtron.
- Heine, Bernd (2002), On the role of context in grammaticalization, in Wischer, I., G. Diewald (eds.) (2002), *New reflections on grammaticalization*. Amsterdam/Philadelphia, John Benjamins, 83-101.
- Lehmann, Christian (2015), *Thoughts on grammaticalization. 3rd edition*. Language Science Press.
- Tamburini, Fabio (2022). I corpora del FICLIT, Università di Bologna: CORIS/CODIS, BoLC e DiaCoris. Cresti, E., M. Moneglia (Eds.), *Corpora e studi linguistici*, Milano, Officinaventuno, 189-197.

The adversative particle *ma* (but) as a discourse head in Italian

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The issue: In this work, I address the issue of the syntactic status of Italian *ma* (but), when it conveys an adversative counter-expectational meaning, as in the following example:

- (1) Gianni gioca a basket, ma non è alto. Gianni
plays basketball, but he is not tall.

Adversativity in its various forms has been considered by several scholars. See among the many others, for Italian Bianchi & Zamparelli (2004) and Franco (2016), for Spanish Vicente (2010), for Serbo-Croatian Arsenijević (2011), for English Merchant (2004), for Russian Malchukov (2004).

Adversativity is not a unitary phenomenon, but a constellation of various phenomena; it is possible to distinguish at least two main interpretations: the corrective one and the contrastive / counter-expectational one. I will concentrate on the counter-expectational readings (for a semantic analysis in Italian see Ippolito et Al., 2022). Moreover, it must be remembered that adversativity often merges with other meanings/ interpretations, such as concessive and mirative.

The hypothesis: Capitalizing on the proposal by Vicente (2010) for Spanish, I will argue that counter-expectational adversativity is to be seen as clausal coordination plus ellipsis. In my analysis, the particle *ma* is to be considered a discourse head – in ex. (1) above, connecting *Gianni gioca a basket* (Gianni plays basketball) with *non è alto* (he is not tall). Therefore, although example (1) may appear to be a single sentence, it is actually a complex structure composed of two separate sentences. I dub this structure a *micro-discourse*. I will demonstrate that this hypothesis holds in cases other than the counter-expectational as well, both in Italian and other languages. The syntactic structure I propose is the following:

- (2) [DIS'' CP [DIS' ma DIS CP]]

As a discourse head, *ma* connects the two parts of the discourse. This structure is potentially recursive, since different discourse heads can combine to give rise to bigger structures.

The data: Data result from a 1-5 Likert scale applied to 10 native speakers, judgments are very consistent. Some data in favor of this proposal are the following:

- *ma* is not a complementizer, in that it cannot introduce a complement clause:

- (3) *Gianni ha detto *ma* non partirà.
Gianni said but he will not leave.

- *Ma* cannot coexist with the complementizer, neither preceding nor following it. Hence, a sentence introduced by *ma* cannot be embedded:

- (4) *Gianni ha detto (che) *ma* (che) non partirà.
Gianni said that *ma* that he will not leave.

- Furthermore, the phrases represented in the left periphery of the clause, such as focus and topic can never precede *ma* – see also Giorgi (2016, 2018):

(5) Gianni ha invitato Luisa ma non inviterà suo fratello. Gianni invited Luisa, but he will not invite her brother.

(6) * ...SUO FRATELLO ma non inviterà. (Focus)
...her brother. Foc but he will not invite.

(7) *...suo fratello, ma lo non lo inviterà. (topic: Clitic Left Dislocation)
...her brother, but him.cl he will not invite.

- The sentences given above can be uttered by two different speakers. Hence, they are independent and are to be represented as separate units:

(8) Speaker A: Gianni gioca a basket
Gianni plays basketball

(9) Speaker B: Ma non è alto
But he is not tall

Finally, the two parts of an adversative clause can be uttered with different illocutionary forces, as in the following case, where the first part is an assertion, and the second a question:

(10) Gianni è in salotto, ma Maria dov'è?
Gianni is in the living room, but where is Mary?

Discussion and conclusions: I will analyze the evidence presented above by comparing the Italian data with data from other languages, especially Spanish and German. Additionally, I will compare the usage of adversative *ma* with *però* (but, however, though), which shares some, but not all, of the properties of *ma*. I will argue that the hypothesis proposed earlier can explain these findings and offer new insights into the syntax of units larger than a single sentence. I will also briefly discuss the importance of prosody and gesture alignment, as seen in Giorgi & Dal Farra (2019) and Giorgi & Petrocchi (2024) and demonstrate how these data support the proposed hypothesis.

References:

- Arsenijević, Boban. 2011. "Serbo-Croatian coordinative conjunctions at the syntax-semantics interface", *The Linguistic Review*, 28, 175–206.
- Bianchi, Valentina & Roberto Zamparelli. 2004. Edge coordinations: focus and conjunction reduction. In: *Peripheries: syntactic edges and their effects*, eds. David Adger, Cécile de Cat, and George Tsoulas, 313–328. Dordrecht: Kluwer.
- Franco, Ludovico. 2016. Adversative corrective coordination, *RRL*, 2, LXI, p. 125–142, București.
- Giorgi, Alessandra. 2018. Giorgi, Alessandra. 2018. Ma non era rosso? (But wasn't it red?): On counter-expectational questions in Italian. In: Lori Repetti & Francisco Ordóñez (eds.), *Selected papers from the 46th Linguistic Symposium on Romance Languages (LSRL)*, 69–84. New York: John Benjamins.
- Giorgi, Alessandra. 2023. Micro-discourses and context-enrichment: Interjections, vocatives and adversative particles. *Quaderni di lavoro ASIT* 25. 571–600.
- Giorgi, Alessandra & Chiara Dal Farra. 2019. On the syntax/pragmatics interface: Expressing surprise and disapproval. *Intercultural Pragmatics* 16(3). 335–361.

- Giorgi, Alessandra & Erika Petrocchi. 2024. A cross-cultural analysis of the gestural pattern of surprise and surprise-disapproval questions. *Intercultural Pragmatics* 2024; 21(3): 307–347.
- Ippolito, Michela et. Al. 2022. The discourse function of adversative conjunction. In: *Proceedings of Sinn und Bedeutung* 26, pp. 465–482. University of Cologne.
- Vicente, Luis. 2010. On the syntax of adversative coordination, *Natural Language and Linguist Theory* 28: 381–415.
- Malchukov, Andrej. 2004. Towards a semantic typology of adversative and contrast marking. *Journal of Semantics* 21(3). 177–198.
- Merchant, Jason. 2004. Fragments and ellipsis. *Linguistics & Philosophy* 27: 661–738.

Any's free choice

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Keywords: free choice, negative polarity, indefiniteness, *any*, at-issueness

Since Ladusaw (1979) the term 'free choice indefinite' is the generally accepted term for the use/meaning of *any* in primarily modal and generic sentences, illustrated in (1), and emphatically **not** for what is generally called the 'polarity-sensitive' or 'negative polarity' use /meaning illustrated in (2). This distinction reflects the fact that in (1) the meaning of *any* is close to that of *all/every* and in (2) it is close to that of *some*.

- | | | | |
|-----|----|--|---|
| (1) | a. | I can beat <i>any</i> of you. | [≈ I can beat <i>all</i> of you.] |
| | b. | <i>Any</i> owl hunts mice. | [≈ <i>Every</i> owl hunts mice.] |
| (2) | a. | If <i>any</i> of them call, let me know. | [≈ If <i>some</i> of them call, let me know.] |
| | b. | Did you take <i>any</i> ? | [≈ Did you take <i>some</i> ?] |

The inspiration for Ladusaw was Vendler (1967: 70-96), but Vendler took a notion of 'freedom of choice' to characterize all uses of *any*. Our presentation has three goals:

- i. to confirm, in agreement with much current work, that Vendler (1967) was right, and to suggest, in disagreement with most if not all current work, to make terminology reflect the insight and no longer restrict the term 'free choice' to just a few of the uses/meanings of *any*;
- ii. to offer a new univocal approach of *any*, hypothesizing its meaning to contain the components 'existence' and 'free choice', and using the notion of 'at-issueness' (aka 'assertedness'; see e.g. Koev 2017, Horn 2002), which can affect either component, to explain the various uses;
- iii. to illustrate the approach sketched under ii. in the analysis of the two readings of (3).

- (3) He didn't meet *any* linguist.
- (4) a. He didn't meet *any* linguist, he abstained from linguistics that year.
b. He didn't meet *any* linguist, he met Roman Jakobson.

The two readings depend on their different at-issue structure, as paraphrased in (5).

- (5) a. Whichever linguist one can think of [not at issue], he didn't meet him or her [existence at issue and denied]
b. He met a linguist [not at issue], but he didn't just meet any old linguist [free choice at issue and denied]

As is well known (see already Palmer 1929; Horn 1972: 149-151), the b-reading goes with a fall-rise intonation and/or it is marked by *just* and/or *old*. Whereas the association of the free choice denial reading with *just* has been adequately dealt with by Horn (2000), I will explain the association of said reading with *old* and with the fall-rise intonation in an account of all three markings (*just*, *old* and the fall-rise intonation):

- (i) free choice is inherently scalar, in the sense that freedom comes in degrees;
- (ii) *just*, *old* and the fall-rise intonation convey the exclusion of a higher value (Ladd 1978; Horn 2000);
- (iii) with a negation in the *any* context, *just*, *old* and the fall-rise intonation convey the inclusion of a higher value on a scale from low to high specificity

References

- Horn, Laurence R. (1972), *On the semantic properties of logical operators in English*. Doctoral dissertation, University of California at Los Angeles.
- Horn, Laurence R. (2000), Pick a theory (not just *any* theory). Indiscriminatives and the free-choice indefinite, in Laurence R. Horn & Yasuhiko Kato (eds), *Negation and polarity. Syntactic and semantic perspectives*. Oxford: Oxford University Press, 147-192.
- Horn, Laurence R. (2002), Assertoric inertia and NPI licensing, in Mary Andronis, Erin Debenport, Anne Pycha & Keiko Yochimura (eds), *Papers from the panels of the thirty-eighth regional meeting of the Chicago Linguistic Society*. Chicago: Chicago Linguistic Society, 55-82.
- Koev, Todor. (2018), Notions of at-issueness. *Language and Linguistics Compass* 12
<https://doi.org/10.1111/lnc3.12306>
- Ladusaw, William A. (1979), *Polarity sensitivity as inherent scope relations*. Doctoral dissertation, University of Texas at Austin. [1980. New York & London: Garland]
- Palmer, H[arold] E. (1929), *Report on research activities during the year 1928-1929*. Tokyo: The institute for research in English teaching.
- Vendler, Zeno. (1967), *Linguistics in philosophy*. Ithaca, NY: Cornell University Press.

The emerging uses of the Finnish discourse particle *jep* ('yep')

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In this paper, we are interested in the use of the borrowed discourse particle *jep* in Finnish. Our approach is interactional, and methodologically, the study falls in the fields of Conversation Analysis and interactional sociolinguistics.

Jep is a Finnish version of the American English particle *yep* which is said to be an informal variant of *yes* or *yeah*, altered for emphasis (Etymonline, s.v. *yep*). The Finnish dictionary *Kielitoimiston sanakirja* describes *jep* as an affirmative answer, indicated as informal. Paunonen (2017) records that *jep* has occurred in Helsinki slang since 1940's. However, to our knowledge, there are no empirical studies on Finnish *jep*.

Our presentation stems from an observation that over the past few years, the use of *jep* has increased specifically among young adults. Moreover, the particle has developed uses that seem to do more than merely provide an affirmative answer in an "informal" register. Our preliminary observation suggests that *jep* may be used to confirm and show agreement with something that is obvious, originating either from the previous conversation, general knowledge and/or from the *jep*-speaker's existing, possibly superior knowledge on the matter.

We will observe whether the use of *jep* changes – qualitatively or quantitatively – when comparing older and new data. The data consist of every everyday conversation (recordings from 1990's to 2020's), mobile messaging and dialogues from a contemporary TV-series depicting young Helsinki adults. We will analyze 1) the interactional functions of *jep* as a response particle (cf. Sorjonen 2001) and 2) the epistemic stances that *jep* conveys (see Kärkkäinen 2003; Heritage 2012). We will discuss how the stances align with the interactional and social categories that are relevant in the situation (cf. Jaffe 2009).

References

- Etymonline* = Online etymology dictionary. <https://www.etymonline.com/>
- Heritage, John 2012: Epistemics in action: action formation and territories of knowledge. *Research on Language and Social Interaction* 45(1), 1–29.
- Jaffe, Alexandra (ed.) 2009: *Stance: Sociolinguistic Perspectives*. New York: Oxford University Press.
- Suomen etymologinen sanakirja* [Finnish etymological dictionary]. Helsinki: Kotimaisten kielten keskus. <https://kaino.kotus.fi/suomenetymologinensanakirja/>
- Kielitoimiston sanakirja* [Finnish dictionary of modern Finnish]. 2012. Helsinki: Kotimaisten kielten tutkimuskeskus. <https://www.kielitoimistonsanakirja.fi/#/jep?searchMode=all>
- Kärkkäinen, Elise 2003: *Epistemic Stance in English Conversation: A description of its interactional functions, with a focus on I think*. Amsterdam: John Benjamins.
- Paunonen, Heikki 2017. *Tsennaaks Stadii, bonjaaks slangii. Stadin slangin suursanakirja*. Helsinki: WSOY. [The Finnish slang dictionary]
- Sorjonen, Marja-Leena 2001: *Responding in conversation. A study of response particles in Finnish*. Amsterdam: John Benjamins.

Dialogical and monological functions of the discourse marker *bueno* in spoken and written Spanish

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The Spanish discourse marker *bueno* ‘good’ has multiple functions ranging from (dis)agreement to topic management (e.g., Bauhr, 1994; Martín Zorraquino & Portolés, 1999; Serrano, 1999; López Serena & Borreguero Zuloaga, 2010; Maldonado & Palacios, 2015; Borreguero Zuloaga, 2017, Rosemeyer & Posio 2023). While *bueno* has previously been used and analyzed almost exclusively in colloquial speech, it has recently become more frequently used in written texts with the rise of online genres like blogs and discussion forums. What happens when *bueno* is used in writing?

We compare the use of *bueno* in Mexican and Peninsular Spanish, using spoken discourse (sociolinguistic interviews from PRESEEA, 1.8 million words) and written internet texts (discussion forums and blogs from *Corpus del Español*, 700 million words). The final dataset consists of random samples of 4000 occurrences (see Table 1).

Table 1. *Bueno* in the data

Data type	Subcorpus	Discourse marker use	Adjectival use	% Discourse marker use
Sociolinguistic interviews	PRESEEA _{Mexico}	860	140	86
	PRESEEA _{Spain}	941	59	94.1
Internet texts	CdE _{Mexico}	501	499	50.1
	CdE _{Spain}	527	473	52.7

The goals of the study are twofold. First, we use qualitative analysis to propose a unified account of the discourse functions of *bueno* based on the conversational principles of preference and mitigation: in dialogical contexts, *bueno* can be described as mitigating a dispreferred second pair part such a disagreeing or overtly informative response or an abrupt change of topic (example 1a). In monological contexts, *bueno* rather specializes in topic and perspective management, e.g., introduction of alternative perspectives (example 1b). Fictive interaction (Pascual 2006) included in monological contexts (such as written texts) serves as a bridging context between dialogical and monological uses.

1a. Topic change, spoken dialogue (PRESEEA_{Spain})

I: [...] *no sé si tenía carrera o no sé si tenía futuro pero // ¿quién sabe?*

‘I don’t know if I would have had a career or if I would have had a future but, who knows?’

E: *bueno / ¿dónde prefieres vivir en el campo o en la ciudad?*

‘BUENO where do you prefer to live, in the countryside or in the city?’

1b. Perspective management, written monologue (CdE_{Mexico})

en mi opinión el ñu metal es para fresas y personas que se quieren sentir malas oyendo gritos según ellos pero bueno cada quien su gusto

‘In my opinion, nu metal is for preppies and people who want to feel bad hearing screams according to them, but BUENO, to each their own’

Second, we use regression analysis to examine the hypotheses that (a) written medium serves as a catalyst for monologization of the discourse marker (Sansò 2022), and (b) the two dialects studied represent two different stages of grammaticalization of *bueno*, reflected in the less frequent discourse marker use in Mexican Spanish (Table 1). While the first hypothesis is confirmed, evidence supporting the second hypothesis is less conclusive, suggesting that written uses are more similar between the two dialects than the spoken ones. The study deepens our understanding of the discourse marker *bueno* and differences between spoken and written contexts.

References

- Bauhr, Gerhard (1994). Funciones discursivas de *bueno* en español moderno. *Lingüística Española Actual* 16: 79–124.
- Borreguero Zuloaga, Margarita (2017). Los relatos coloquiales: partículas discursivas y polifonía. *Pragmalingüística* 25: 62–88.
- López Serena, Araceli and Margarita Borreguero Zuloaga (2010). Los marcadores del discurso y la variación lengua hablada vs. lengua escrita. In Óscar Loureda Lamas and Esperanza Acín Villa (eds.), *Los estudios sobre marcadores del discurso en español, hoy*, 415–495. Madrid: Arco Libros.
- Maldonado, Ricardo and Patricia Palacios (2015). *Bueno*, a window opener. In Daems Jocelyne, Zenner Eline, Heylen Kris, Speelman Dirk and Cuyckens Hubert (eds.), *Change of Paradigms – New Paradoxes*, 97–108. Berlin, München, Boston, De Gruyter Mouton.
- Martín Zorraquino, M. A. and José Portolés (1999). Los marcadores del discurso. In Ignacio Bosque and Violeta Demonte (eds.), *Gramática descriptiva de la lengua española*, 4051–4212. Madrid: Espasa Calpe.
- Pascual, Esther (2006). Fictive interaction within the sentence: A communicative type of fictivity in grammar. *Cognitive Linguistics* 17(2): 245–267.
- Rosemeyer, Malte & Posio, Pekka (2023). On the emergence of quotative *bueno* in Spanish: a dialectal view. In Daniela Casartelli, Silvio Cruschina, Pekka Posio & Stef Spronck (eds.), *The Grammar of Thinking - From Reported Speech to Reported Thought in the Languages of the World*, 107–140 (Trends in Linguistics. Studies and Monographs (TiLSM)). Berlin: De Gruyter Mouton.
- Sansò, Andrea (2022). Discourse markers from processes of monologization: Two case studies. In Miriam Voghera (ed.), *From Speaking to Grammar*, 201–225. Bern: Peter Lang.
- Serrano, María José (1999). *Bueno* como marcador discursivo de inicio de turno y contraposición: estudio sociolingüístico. *International Journal of the Sociology of Language* 1999(140): 115–133.

The Vedic Sanskrit discourse particle *ghā* as consecutive connector: Semantics, Indo-European cognates and typological parallels

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Keywords: particle, connector, Indo-European, consecutive, causal

The linguistic analysis of discourse structure in a dead language poses serious problems: the available evidence is limited to attested texts and may often be insufficient to make conclusions about the semantics and usage of discourse markers. Yet, a thorough philological study of the text corpus may contribute to better understanding of discourse structure even in an ancient language. A case in point is the usage of the discourse particle *ghā* in Vedic Sanskrit. The traditional translation of this particle as ‘perhaps, certainly’, albeit possible for some of its occurrences, yields weird interpretations for a number of passages from the Ṛgveda (c. 1200-1000 BCE), in particular, in the dialogue between first humans, the twins Yama and Yamī (RV 10.10). Answering to his sister Yamī, who tries to seduce Yama, he replies:

(1) *á ghā tá gachān úttarā yugāni*
to GHA those come:pres:3pl.subj.act further:nom.pl.n generation:nom.pl
yātra jāmayah kṛṇāvann á-jāmi (RV 10.10.10)
where kin:nom.pl do:pres:3pl.subj.act not-kindred:acc.sg
‘GHA [perhaps?] other generations will come, where incest will be common’.

The traditional interpretation of *gha* as ‘perhaps’ (e.g. Renou 1956; Dunkel 2014: Bd. 2, 283ff. on *-*gho* as source of Ved. *ghā* and Slavic *že*: ‘wahrlich, in der Tat’) leaves unexplained Yama's pessimism, badly fits the general content of the hymn and, eventually, leads to an inadequate analysis of this important Vedic text. On the basis of the pragmatic analysis of this dialogue as well as philological study of other attestations of *ghā* in Vedic, the interpretation of *ghā* can be reconsidered. I argue that *ghā* functions here as a consecutive connector, meaning ‘(if so) then; as a result’: P *ghā* Q = ‘(if) P happens, then Q will probably happen, too’. The construction with GHA instantiates thus the conventionalized independent use of a formally subordinate clause and can be qualified as an example of insubordination. This clarifies Yama's reply (“if we commit incest, the next generations will do the same”) and contributes to a more adequate understanding of this and other Vedic texts. This interpretation is corroborated by other occurrences of *ghā*, as in

(2) *havāmahe ... índram útáye // á ghā gamad* (RV 1.30.7-8)
‘...we call Indra for help. — **Then** he will come.’

Additional evidence in support of this analysis is provided by the cognates of *ghā* in other Indo-European languages, such as Old Church Slavic and Old Russian *že* (see Ickler 1981), which may function either as causal or as consecutive connector, as well as by the typologically comparable causal/consecutive morphemes such as Germ. *denn* (causal) / Eng. *then*, Germ. *dann*, Dutch *dan* (consecutive) (Redder 1990) or Spanish *pues* ‘because; then’, as in (3-4):

(3) *Te lo diré, pues de todos los modos has de saberlo.*
‘I will tell you this, **because** you will know this anyway.’

(4) *No tengo ganas de comer.* — **Pues** *no comas*

'I do not feel like eating. — **Then** don't eat!'

Both causal and consecutive functions may originate in the temporal meaning 'then', cf. Sp. *pues* ← Lat. *post* (preserved for Fr. *puis*).

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References

Dunkel, George E. (2014), *Lexikon der indogermanischen Partikeln und Pronominalstämme*, 2 Bde, Heidelberg: Winter.

Ickler, Nancy L. (1981), *The particle "že" in Old Russian: the discourse origins of conditionals and relatives*, PhD diss. University of California, Berkeley.

Redder, Angelika (1990), *Grammatiktheorie und sprachliches Handeln: "denn" und "da"*, Tübingen: Niemeyer.

Renou, Louis (1956), *Hymnes spéculatifs du Véda traduits du sanskrit et annotés*, Paris: Gallimard.

Grammaticalization of Kavalan imperative marker *-ka* into discourse markers

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Keywords: imperative, hortative, discourse marker, grammaticalization, usage-based

In this paper, we investigate the evolution from the imperative to discourse markers in Kavalan, a highly endangered Austronesian language spoken in the eastern coast of Taiwan. Unlike previous literature on the imperative, which has largely relied on isolated and often made-up sentences, this study adopts a usage-based perspective (Bybee 1985, 2010; Diessel 2019; Goldberg 2006; Tomasello 2003) to better understand the illocutionary nature of the imperative, hortative and multiple discourse functions of the Kavalan imperative marker *-ka*. We examine its actual uses in the dynamic meaning negotiations that take place in naturally occurring social interactions. Using data from an online corpus of conversations and narratives, we provide empirical evidence of three sub-functions of *-ka*, which differ by the performer of the focal action: (i) the strong imperative has an omitted second person subject, as in (1a); (ii) the polite imperative has a second person subject, as in (1b); (iii) the hortative has a first-person plural subject (i.e., the speaker and the addressee(s), as in (1c). In addition to imperative and hortative usages, Kavalan *-ka* has also found to develop into discourse markers conveying various pragmatic functions, as in (2). What is more intriguing, this particular imperative marker can be used to denote 1st person pronominal marker, as in (3), which may remind us of similar phenomena reported in several Chadic languages (e.g., Lovstrand 2018), which have shown that there are intriguingly intertwined relations between imperative/hortative marker and pronominal affixes/functions. The findings of this study may contribute theoretically to a better understanding of the development of imperatives into discourse markers, and may also shed some lights on the typological studies on the imperative constructions.

Data: (1a) Strong Imperative

“qawtu-**ka** pasa-zi!” zin na patudan=ta.
come-IMP.AV toward-here say GEN teacher=1IPL.GEN
“Come over here!” said our teacher.’

(1b) Polite Imperative

“si-tiuy-**ka** aisu mawtu pasa-zi!” zin=na=iku.
bring-tea.pot-IMP.AV 2SG.NOM AV.come toward-here say=3SG.GEN=1SG.NOM
“Please bring your tea pot over here!” he said to me.’

(1c) hortative

“qan=pa=ita-**ka**!” zin na baqi.
eat=FUT=1IPL.NOM-IMP.AV say GEN grandfather
“Let’s eat!”, Grandfather said (to us).’

(2a) discourse marker: complaining (NTU Corpus: KavCon_Buya&Nengi, Line 250)

“anu matabung=ita nani, tang kizaya aimu **ka**!”
when AV.meet=1IPL.NOMDM speak Amis 2PL.NOM PART

zin=ku.
say=1SG.GEN

“When we meet, you all speak Amis!”, I said (to them).’

(2b) discourse marker: exclamative (NTU Corpus: KavCon_Buya&Nengi, Line 344)

“wa! suppaR aimu ka sianguzus!” zin-na
INTERJAV.know 2PL.NOM PART pick.food.at.sea say=3PL.GEN
“Wow! You DO know how to pick up food at sea!’ said they.”

(2c) discourse marker: scolding

qabinget=su ka! mai m-ipil tu sikawman.
bastard=2SG.GEN PART NEG AV-hear OBL words
‘You disobedient bastard! (You) don’t listen to other’s words!’

(3) pronominal marker (**ka**= ‘I will’)

- a. palana-ka=isu ta nguzusan!
wait-1SG.FUT=2SG.NOM LOC fjord
‘I will wait for you at the fjord!’
- b. panmu-ka=isu me-Rasa tu baut!
help-1SG.FUT=2SG.NOM AV-buy OBL fish
‘I will help you buy fish (since you have been busy)!’

Table A Personal Pronominal System in Kavalan

		Free				Bound		
	person	Nom	Acc	Loc	Poss	Nom	Gen	
Singular	1st	aiku	timaiku	timaikuan	zaku	=iku	=ku	
	2 nd	aisu	timaisu	timaipuan	zasu	=isu	=su	
	3 rd	aizipna	timaizipana	tamaizipana	zana	---	=na	
Plural	1st	incl	aिता	timaita	timaitan	zata	=ita	=ta
		excl	aimi	timaimi	timaimian	zaniaq	=imi	=niaq
	2 nd	aimu	timaimu	timaimuan	zanumi	=imu	=numi	
	3 rd	qaniyau	qaniyau	qaniyauan	zana	---	=na	

Table B Case Marking System in Kavalan

	Nominative	Oblique	Genitive	Locative
Personal name		...-an	ni	...-an
Common nouns	ya/a	tu	na	ta ...-an ‘in; at’ sa ‘to’ pasa ‘toward’

References

- Bybee, Joan (1985), *Morphology: A study on the relation between meaning and form*, Amsterdam: John Benjamins.
- Bybee, Joan (2010), *Language, cognition, and usage*, Cambridge, UK: Cambridge Univ. Press.
- Diessel, Holger (2019), *The grammar network: How linguistic structure is shaped by language use*, Cambridge, UK: Cambridge Univ. Press.
- Goldberg, Adele E. (2006), *Constructions at work: The nature of generalization in language*, Oxford: Oxford Univ. Press.
- Lovestrand, Joseph (2018), Plural addressee marker and grammaticalization in Barayin, *Journal of Afroasiatic Languages and Linguistics* 10(1).
- NTU Corpus of Formosan Languages <https://corpus.linguistics.ntu.edu.tw/#/> Tomasello, Michael (2003), *Constructing a language: A usage-based theory of language acquisition*, Cambridge, MA: Harvard Univ. Press.

GS Syntax II

Which verbs cannot be passivized?

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Keywords: passivisability, transitivity, agency, intentionality, force interaction.

Research question. The main criteria for passivisability typically represent transitivity (Zifonun et al. 1997), unaccusativity (Abraham 2011, Grewendorf 1989) and, as regards semantic conditions, the agenthood of the subject (Eisenberg 2013). However, evidence from German corpora show that none of the conditions provided in the given literature are consistent.

- (1) Wichtig ist auch der freie Zugang zu Rohstoffen [...], die für die Produktion von Batterien **gebraucht werden**. (Rede von Angela Merkel, 29.01.2011)

‘Important is also free access to raw materials [...] which for the production of batteries **needed are**.’

Free access to raw materials [...], which are needed for the production of batteries, is also important.

(1), for instance, illustrates that agency of the eliminated subject argument is by no means a valid condition for passivization.

Against this background, the talk addresses the question of which conditions have to be fulfilled for a verb to passivize, focusing on the German passive construction *werden* + past participle.

Method and Data. To address this question, a sample of 438 verbs has been created, comprised of verbs that are claimed to lack a passive variant or are deemed borderline cases. In a corpus-based study, the verbs are examined as to whether there is evidence for passive constructions of the respective verb or not. The main data source for the study constitutes the DWDS corpus *Gegenwartskorpora mit freiem Zugang* (3 billion words). Additionally, all 438 verbs are analysed in regards their aspectual features and semantic roles in order to uncover possible correlations of both formal and semantic features with passivisability.

Results. First, the analysis shows that not agency, but rather a constitutive feature of agenthood, namely intentionality and directedness (Leslie 1996; Tomasello et al. 2005), forms the condition for passivisability.

In a second step, this micro-condition is traced back to the force dynamics exhibited in a passive sentence (Langacker 1990). The passive construction denotes an event whose participants are maximally distinct in terms of force. The implied agent is the source of force. The patient subject undergoes the force effect. A passive sentence, therefore, displays an event that comprises the initial and final participant and, hence, the whole trajectory of force interaction.

Therefore, only verbs that conceptually represent the initial and final point of a force interaction are considered passivisable.

In the passive construction without subject, the force effect results in the action as such. Analogous to the patient, it is the final goal of the force.

Discussion. This approach offers new insight into the entanglement of formal and semantic features of passivization. The passive restriction allows – *ex negativo* – for conclusions to be drawn regarding the semantic profile of the passive construction, and vice versa.

This insight sheds new light on the discussion whether or not the passive is to be understood synonymous to an equivalent active clause, and, consequently, whether the passive is to be understood as conversion of an active clause (synonymous) or as an independent construction.

References

- Abraham, Werner (2011): Verbs of motion. Impersonal passivization between unaccusativity and unergativity. In: Andrej L. Malchukov und Anna Siewierska (ed.): *Impersonal constructions. A cross-linguistic perspective* (Studies in language companion series, 124). Amsterdam: John Benjamins. 91–125.
- Eisenberg, Peter (⁴2013): *Grundriss der deutschen Grammatik. Band 2. Der Satz*. Stuttgart, Weimar: J.B. Metzler.
- Grewendorf, Günther (1989): *Ergativity in German* (Studies in Generative Grammar, 35). Dordrecht: Foris.
- Langacker, Ronald W. (1990): Settings, participants, and grammatical relations. In: Savas L. Tsohatzidis (Hrsg.), *Meanings and prototypes: Studies in linguistic categorization*. 213 – 238.
- Leslie, Alan M. (1996): A theory of agency. In: Dan Sperber et al. (Hrsg.), *Causal Cognition: A Multidisciplinary Debate*. 121 – 149.
- Tomasello, Michael & Malinda Carpenter & Josep Call & Tanya Behne & Henrike Mollet (2005): Understanding and sharing intentions: the origins of cultural cognition. In: *Behavioral and Brain Sciences* 28. 675 – 691.
- Zifonun, Gisela, Ludger Hoffmann & Bruno Strecker (1997): *Grammatik der deutschen Sprache*. 3 Bde. Berlin, New York: De Gruyter.

The pathway of loss of OV in French

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Keywords: Language change; Syntax; French; Object; OV

Considered as an instantiation of head-directionality (Ledgeway 2012), the passage of OV to VO is well attested in Indo-European (e.g. Struik 2023 on Germanic, Poletto 2015 on Romance), and beyond (Kiparsky 2023). The decline of OV in the history of French has been described by a relatively small number of studies (see Marchello-Nizia *et al* 2020, Wolfe 2021). Leaving aside clitics which remain largely preverbal throughout, the overall situation is one in which preverbal DP objects are lost early on, followed by pronominal objects, and retained only with a couple of short quantifiers (*Il a tout fait / Il n'a rien fait*). The type of verbs also influences the development, and non-finite forms allow preverbal objects longer than finite verbs, as shown by Zaring (2010).

The causes for the pattern of change remains to be explained, which is the objective of this paper. This is achieved by first confirming the chronology of OV decline in French, and then identifying the morphosyntactic types of object and verbs that remain available in OV configuration through time. The investigation is based on two sets of syntactically annotated data. One series is chronicles from the 13th to the 19th century from the Normandy region (*Chroniques* corpus). The other is procedure styles, explaining the conduct of a trial, distributed between the 13th to the 16th, and from the same region (selected from the MICLE corpus). The calibration by prose style, text type, and region is expected to reduce non-structural variation.

The extracted occurrences are manually examined and analyzed to identify in a bottom-up way the morphosyntactic types of objects and verbs. For verbs, these categories relate to finite simple verbs, non-finite verbs as part of a compound verb phrase, and non-finite verbs on their own. For objects, they are DPs (whether headed by a determiner, a deictic determiner or a quantifier), bare nouns, deictic pronouns or quantifiers. These distinction are instrumental in demonstrating that each of the two morphosyntactic categories undergo the same cline of development, from DPs to bare nouns, to deictic pronouns, and finally only to quantifiers, lost first before finite verbs, to be maintained with compound non-finite verbs, and finally with isolated non-finite verbs.

The cause for this development of object types is sought in the interface with prosody. Drawing inspiration from Hinterhölzl (2017; see also van Kemenade, Hinterhölzl and Struik In press), we suggest that OV is lost gradually as preverbal objects are increasingly unable to bear phrasal stress. As Medieval French is changing to final phrasal stress (Rainsford 2011), full DPs OV are lost, as they would have to be stressed before the VP is, interrupting the verb phrase stress. Shorter elements that can be integrated into the VP phrasal stress are retained. The deictic pronoun *ce*, which has historically lost the ability to bear stress, can occur in later OV, and so can monosyllabic *tout* and *rien*. On the other hand, strong pronouns, which generally bear stress, are not admissible in later OV constructions. Why OV is maintained longer with non-finite verbs will be speculated upon.

References

Hinterhölzl, Roland. 2017. From OV to VO in English. Bettelou Los and Pieter de Haan (Eds). *Word Order change in acquisition and language contact: Essays in honour of Ans van Kemenade*. Amsterdam: Benjamins. 9-35.

- Kiparsky, Paul. 2023. *The word-order cycle*. Keynote, International Conference on Historical Linguistics, September 2023, Heidelberg.
- Ledgeway, Adam. 2012. *From Latin to Romance: Morphosyntactic typology and change*. Oxford: Oxford University Press.
- Marchello-Nizia, Christiane, Bernard Combettes, Sophie Prévost and Tobias Scheer (Eds). 2020. L'objet. *Grande grammaire historique du français*. Berlin: De Gruyter. 1126-1156.
- Poletto, Cecilia. 2015. *OV and VO in Romance: The special status of Quantifiers*. Presentation, CCLS Lectures, May 2015, Cologne.
- Rainsford, Thomas. 2011. *The emergence of Group Stress in Medieval French*. PhD dissertation, University of Cambridge.
- Struik, Tara. 2023. *Information structure triggers for Word Order variation and change: The OV/VO Alternation in the West Germanic languages*. PhD dissertation, Nijmegen.
- van Kemenade, Ans, Roland Hinterhölzl and Tara Struik. In press. Word order change, architecture, and interfaces: Evidence from the development of V to C movement in the history of English. *Journal of Historical Syntax*.
- Wolfe, Sam. 2021. *Syntactic change in French*. Oxford: Oxford University Press.
- Zaring, Laurie. 2011. On the nature of OV and VO order in Old French. *Lingua* 121,12, 1831-1852.

Correlative relative clauses: Their definition and correlation with OV order

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Correlative relative clauses (CRCs) are a cross-linguistically rare type of internally headed relativization. The following example from Marathi illustrates that the relative clause in CRCs is external to the main clause, which contains a matching resumptive pronoun and an optional copy of the head noun.

- (1) Marathi (Indo-Aryan)
- | | | | | |
|--------------|------------------|--------------|---------------|----------------------|
| [dZī | mulgī | tithe | bas-l-ī | āhe,] |
| REL.SG.F | girl | there | sit-PFV-3SG.F | be.PRS.3SG tī |
| | (mulgī) | mā-dzh-ī | bahīṅ | āhe. |
| that.SG.F | (girl) | 1SG-GEN-SG.F | sister | be.PRS.3SG |
- ‘The girl who is sitting there is my sister.’

Earlier studies have shown that CRCs are almost exclusively found in languages with (loose) OV order (Downing 1973; Keenan 1985; de Vries 2002; Lipták 2009). As such, they represent a feature that unidirectionally correlates with the order of object and verb: if CRCs are present in a given language, then this language will likely also have OV word order.

Recently, *Grambank* proposed a new definition of CRCs that mentions the resumptive (or anaphoric) pronoun, exclusively (Skirgård et al. 2023). Due to this very broad definition, the authors include a multitude of languages from around the world, many of which exhibit VO order and thus cast doubt on the validity of the correlation with OV.

The first part of this study criticizes the new definition and demonstrates that it is insufficient to capture the actual particularities of CRCs. Among other things, it led to the inclusion of cases with an external head (e.g., Mayogo) or with non-restrictive semantics (e.g., Basque, Polish). The resulting collection of constructions is too heterogeneous to be useful as a cross-linguistic category. Given a more restrictive definition as in *WALS* (Dryer 2013), the number of languages with CRCs is much smaller and by and large restricted to languages in South Asia (e.g., Indo-Aryan, Dravidian) and Western Africa (mostly Mande). They can also be found in ancient Indo-European varieties (e.g., Hittite).

The second part of the talk is an attempt at a classification of different subtypes of CRCs. This part will focus on extensive data elicited from native speakers of Marathi (Indo-Aryan), Kannada (Dravidian), and Jula (Mande) that exhibit similar constructions but nevertheless differ in many details. For instance, the constructions in Kannada and Jula are more rigid than in Marathi, which allows for many structural variants (Wali 1982). Marathi has relative and resumptive pronouns that inflect for case, number, and gender, which is not the case in Kannada (*yaava* ‘which’, *aa* ‘that’) and Jula (*min* ‘REL’, *o/a* ‘DEM/3SG’). The constructions also differ in their diachronic origin. In languages with case marking, CRCs can develop through inverse attraction (Harris & Campbell 1995), whereas the absence of case in Mande suggests an origin in clause chaining instead (Givón 2012). The Dravidian CRC is a calque from the Indo-Aryan construction, which itself can be traced back to Proto-Indo-European.

The study concludes that, despite these differences, the constructions in these three languages are sufficiently homogenous to count as the same cross-linguistic category. They share several unique properties, including the external relative clause, the internal head, and the resumptive pronoun, which allow an unambiguous identification and preserve the correlation with OV order.

References

- de Vries, Mark. 2002. *The syntax of relativization*. Utrecht: LOT.
- Downing, Bruce. 1973. Correlative relative clauses in universal grammar. *Minnesota Working Papers in Linguistics and Philosophy of Language* 2. 1–17.
- Dryer, Matthew S. 2013. Order of relative clause and noun. In Matthew S. Dryer & Martin Haspelmath (eds.), *WALS Online (v2020.3)*. <http://wals.info/chapter/90>
- Givón, Talmy. 2012. Toward a diachronic typology of relative clauses. In Bernard Comrie & Zarina Estrada-Fernández (eds.), *Relative clauses in languages of the Americas: A typological overview*, 1–26. Amsterdam: John Benjamins.
- Harris, Alice & Lyle Campbell. 1995. *Historical syntax in cross-linguistic perspective*. Cambridge: Cambridge University Press.
- Keenan, Edward. 1985. Relative clauses. In Timothy Shopen (Ed.), *Language typology and syntactic description*, vol. 2, 141–170. Cambridge: Cambridge University Press.
- Lipták, Anikó. 2009. The landscape of correlatives: An empirical and analytical survey. In Anikó Lipták (ed.), *Correlatives cross-linguistically*, 1–46. Amsterdam: Benjamins.
- Skirgård, Hedvig et al. 2023. *Grambank v1.0*. <https://doi.org/10.5281/zenodo.7740140>
- Wali, Kashi. 1982. Marathi correlatives: A conspectus. *South Asian Review* 6(3). 78– 88.

Auxiliary Switch in Italian and Romance

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Keywords: auxiliary selection, restructuring, clitic climbing, Romance

Auxiliary Switch (AS) is an issue that has garnered limited attention in the formal literature. AS refers to a phenomenon where there is a change in the choice of auxiliary: in (1), the auxiliary is selected by the embedded lexical infinitive, instead of the matrix modal verb (*volere* ‘want’ normally selects HAVE, yet here it can appear with either HAVE or BE because *venire* ‘come’ normally selects BE).

- (1) Io sono/ho voluto venire
 I be-1sg/have-1sg wanted come-inf
 ‘I wanted to come’

AS has been studied in the context of Restructuring (Rizzi 1982, Cardinaletti & Shlonsky 2004, Cinque 2004), where clausal boundaries appear to dissipate. In particular, it has been noted that AS patterns with clitic climbing (CC): when the auxiliary switches to BE, the (reflexive) clitic must climb (2).

- (2) a. Io mi sono/*ho voluto lavare.
 I me=be-1sg/have-1sg wanted wash-inf
 b. Io *sono/ho voluto lavarmi.
 I be-1sg/have-1sg wanted wash-inf=me
 ‘I wanted to wash myself’

I adopt the view that auxiliaries are the Spell-Out of a Split v-head (see also D’Alessandro & Roberts 2008, D’Alessandro 2017). I assume that HAVE and BE are allomorphs: the auxiliary is merged as a v_{Aux} -head generated in a projection above v_{Prt} , which hosts the past participle. In my analysis of auxiliary selection, BE surfaces when both T and v_{Aux} probe the same goal, which occurs in two contexts: when the IA moves to Spec,TP (1) (with unaccusative verbs), and when the reflexive clitic is hosted by the auxiliary (2).

I argue that in (1), the Internal Argument (IA) is probed by both $v_{Aux}[u\pi]$ and $T[u\phi]$, which results in $[u\pi]$ and $[u\phi]$ being specified with the same value for person. In (2a), binding of the reflexive clitic (which is ϕ -defective and only bears a 0π -feature, cf. Kayne 2003) by the External Argument (EA) results in the clitic bearing coindexed values with the EA. The latter values T’s ϕ -features. As such, probing of the reflexive by v_{Aux} leads to $v_{Aux}[u\pi]$ and $T[u\phi]$ being specified with the same value for person, similarly to (1). Where T and v_{Aux} ’s features don’t match upon valuation, HAVE surfaces.

	HAVE	HAVE	BE
T	$[u\phi:1_i, sg, masc]$	$[u\phi:1_i, sg, masc]$	$[u\phi:1_i, sg, masc]$
v_{Aux}	$[u\pi: _]$	$[u\pi:2_j]$	$[u\pi:1_i]$
	Io _i ho mangiato.	Io _i ti _j ho visto.	Io _i sono arrivato i θ _i .
			Io _i mi _i sono lavato.

The strength of this theoretical proposal is that AS resorts to the same mechanism as ‘standard’ auxiliary selection as found in Standard Italian.

It has been argued that AS and CC need not always pattern together (Haegeman 2006, Llop and Paradis 2023), which is in fact only true with three types of clitics: locatives, impersonal, and partitives. Given that these clitics lack a π -feature, my analysis naturally accounts for why CC is obligatory with reflexives only. During the talk, I will expand on the relationship (or lack thereof) between AS and CC, and I will contrast the Italian data with several Romance varieties, old and modern.

In conclusion, I provide the first formal connection between AS and CC (of reflexives), which relies on Agreement with the v/T-system.

References

- Cardinaletti, A. & Shlonsky, U. (2004), ‘Clitic Positions and Restructuring in Italian’, *Linguistic Inquiry* 35(4), 519–557.
- D’Alessandro, R. (2017), ‘When you have too many features: Auxiliaries, agreement and clitics in Italian varieties’, *Glossa: a journal of general linguistics* 2(1).
- D’Alessandro, Roberta & Ian Roberts. 2008. Movement and agreement in Italian past participles and defective phases. *Linguistic Inquiry* 39(3). 477–491.
- Haegeman, L. (2006), ‘Clitic climbing and the dual status of *sembrare*’, *Linguistic Inquiry* 37(3), 484–501.
- Kayne, R. (2003), ‘Person morphemes and reflexives in Italian, French and related languages’, *The syntax of Italian dialects* pp. 102–136.
- Llop, A. & Paradis, A. (2023), ‘Clitic climbing and presuppositional negative markers in Occitano-Romance verbal complexes. exploring the crossroads of micro-syntactic phenomena’, *Catalan Journal of Linguistics* 22, 97–125.
- Rizzi, L. (1982), *Issues in Italian Syntax*, De Gruyter.
- Cinque, G. (2004), Restructuring and functional structure, in A. Belletti, ed., ‘Structures and Beyond: the cartography of syntactic structures’, Vol. 3, Oxford University Press, pp. 132–191.

alz chént òn geit: COME and GO as passive auxiliaries in Titsch

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In Titsch, a Walser German variety spoken in the linguistic island of Gressoney in Aosta Valley, the passive system displays a peculiar development which is only partially understandable in terms of contact with Italian or other Romance varieties in a multilingual speech context. In particular, the so-called “Alpine passive” formed with the venitive auxiliary (1), which is also typical of the other Walser German varieties of North-Western Italy and of other Alpine dialects (Wiemer 2011, Giacalone Ramat 2021), stands in competition with a construction containing the andative auxiliary (2):

(1) *was hie sëtter en par joar chént publizier-z*
what[N] hier since INDEF pair years comes published-N.SG
‘What is being published here for a couple of years.’

(2) *d’grössò lougò ésch gwäschn-e kanget*
DEF=big.F.SG laundry[F] is washed-F.SG gone
‘the big laundry has been / was washed.’

In addition, we also observe the occurrence of the older BE-passive while the BECOME-passive typical of Modern Standard German never entered the repertoire:

(3) *D’oalt-ò sproach éscht / *werd letz zeichòt-é en de schuele*
DEF=old-F.SG language[F] is / becomes last taught-F.SG in DEF school
‘The old language is recently taught in schools.’

In the face of such complexity, a clear pattern emerges from corpus data. While the GO-passive only appears in past contexts, the COME-passive is scarcely employed, and exclusively in present contexts. In its place, the BE-passive is normally used. In addition, the BE-passive is also employed in past contexts with a stative-resultative value in compliance with the so-called *Doppelperfekt* ‘double perfect’ in varieties like Titsch which underwent the preterit loss (Postler 2018):

(4) *Z’wasser éscht gfròren-z gsid* DEF=water[N]
is frozen-N.SG been ‘The water was frozen’.

This comes close to a copula construction in which the past participle is similar to an adjective. Note that participles like adjectives regularly display subject agreement. Finally, the GO-passive is also marginally found in present contexts, with a deontic value which is clearly calqued on its Italian correspondent verb *andare* ‘to go’:

- (5) *Wenn z’soarch éscht em héerd, d’lantéernò geit erlascht-e*
when DEF=coffin is in.DEF earth DEF=lamp[F] goes extinguished-F.SG
‘When the coffin is on the ground the lamp must be turned off.’

The peculiar development of the passive system in Titsch shows an interesting interaction of voice and tense/aspect pointing to a clear polarization. While the BE- and COME-passive compete in imperfective environments, the perfective pole is occupied by the GO-passive. The latter is a recent development in Titsch which stands in contrast to the other Walser German islands and is largely independent of the Romance contact varieties. A peculiar process of grammaticalization can be reconstructed for the GO-passive in Titsch which is clearly different from what is observed in Italian (Sansò and Anna Giacalone Ramat 2016). Rather, it profiles an ordinary contact-induced grammaticalization (adopting Heine and Kuteva’s 2010 terms) in which a general process of grammaticalization in a contact situation takes place in the absence of a direct model which is concretely replicated.

References

- Giacalone Ramat, Anna (2021), Another Look at the Alps as a Zone of Contact: Understanding Processes of Language Contact. *Sprachwissenschaft* 46: 205–225.
- Heine, Bernd and Tania Kuteva (2010), Contact and grammaticalization. In Raymond Hickey (ed.), *The Handbook of Language Contact*. Malden (MA), s86–105.
- Postler, Caroline (2018), Das Doppelperfekt – (K)eine neue Tempusform? *Zeitschrift für germanistische Linguistik* 46: 417–446.
- Sansò, Andrea and Anna Giacalone Ramat (2016), Deictic motion verbs as passive auxiliaries: the case of Italian *andare* ‘go’ (and *venire* ‘come’). *Transactions of the Philological Society* 114: 1–24.
- Wiemer, Björn (2011), The grammaticalization of passives. In H. Narrog et al. (ed.), *The Oxford Handbook of Grammaticalization*. Oxford, 535–546.

State types and social relationship in experiencer subject verb passives: An empirical study in Mandarin Chinese and Spanish

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Keywords: passive, experiencer subject verbs, Kimian, Davidsonian, semantics

Research claims that experiencer subject (ES) predicates (e.g. love) are stative, hence unable to form passives (Belletti & Rizzi 1988, Landau 2010). However, a subset of Mandarin Chinese (Cmn) and Spanish (Spa) ES verbs can be passivized, cf. (1) and (2), respectively. We propose two factors that contribute to ES passivization: (i) social relationship between the stimulus (STM) and experiencer (EXP), and (ii) state types, i.e. two subsets of ES verbs: Kimian vs. Davidsonian states.

First, we propose that ES passivisation is facilitated by a close social relation (close referentiality) of the experiencer and stimulus, i.e. a close emotional bond that has a direct impact on the stimulus (vs. a non-referential relation, Gehrke & Marco 2014, 2015). Results of a forced-choice selection pre-test in Cmn and Spa showed that experiencers with a close relationship w.r.t. the stimulus were significantly preferred (Cmn/Spa: $p = 0.02$, data fitted with Generalized linear mixed-effects models) compared to a far relationship, cf. (1) and (2).

(1) Mandarin Chinese

[Zǒngtǒng]_{STM} bèi [tāde érzi]_{CLOSE-EXP} / ??[zhège chūzūchē-sījī]_{FAR-EXP} xǐhuān.
'The president is liked by his son / this taxi driver.'

(2) Spanish

[El presidente]_{STM} es querido por [su hijo]_{CLOSE-EXP} / ??[el taxista]_{FAR-EXP}.
'The president is loved by his son / the taxi driver.'

Second, contrary to research which argues that ES verbs form homogeneous stative predicates (Grimshaw 1990, Pesetsky 1995, and Arad 1998), we propose that ES predicates can be further classified into: Kimian and Davidsonian state types. This feature has an impact on the verb's availability to form passives, i.e. Davidsonian ES verbs readily passivize. Kimian states have a temporal but no spatial dimension whereas Davidsonian states can be located in time and space (Maienborn 2007, 2019). ES verbs co-occurring with locative phrases sets the verbs apart. For instance, ES Cmn *ài* and Spa *querer* 'love' are able to be located e.g. *at home* contrary to Cmn *zūnjìng* 'respect' and Spa *estimar* 'be fond of', see (3) and (4), respectively.

(3) Mandarin Chinese

Zài jiā, Zhāngsān ài / #zūnjìng Lǐsì, dànshì zài bàngōngshì, Zhāngsān bù ài / #zūnjìng Lǐsì.
'Zhangsan loves / respects Lisi at home, but he does not in the office.'

(4) Spanish

Manuel quiere / #estima a Camila en la casa, pero no en la oficina.
'Manuel loves / is fond of Camila at home, but he does / is not in the office.'

Two 1–7 Likert-scale (ongoing) experiments were designed per language to test the aforementioned factors related to passive structures. Test 1 (State types) tests the acceptability ratings w.r.t. the possibility of ES verbs to appear with locative phrases, hence distinguishing them between Davidsonian vs. Kimian states, (cf. (3)-(4)). We expect gradience in the ratings depending on the predicates' properties. Test 2 (Social relationship) tests the impact of the factor close social relationship w.r.t. acceptability ratings with ES and canonical change of state (CoS) verbs (e.g. *break*), cf. (1) and (2). We expect high acceptabilities for ES passives with a close (vs. far) relationship. For CoS, the factor social relationship should not play a role. The studies further shed light on cross-linguistic differences and commonalities between the target languages in the psych domain.

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References

- Arad, Maya (1998), *Psych-notes*, Vol. 10 of *UCL Working Papers in Linguistics*, 203-223.
- Belletti, Adriana & Luigi Rizzi (1988), Psych-verbs and Theta-Theory, *Natural Language and Linguistic Theory* (6)3, 291–352.
- Gehrke, Berit & Cristina Marco (2014), Different by-phrases with adjectival and verbal passives: Evidence from Spanish corpus data, *Lingua* 149, 188–214.
- Gehrke, Berit & Cristina Marco (2015), Las pasivas psicológicas, in Rafael Marín (ed.), (2015), *Los predicados psicológicos*, 117–157, Madrid: Visor.
- Grimshaw, Jane (1990), *Argument structure*, Cambridge: MIT Press.
- Landau, Idan (2010), *The locative syntax of experiencers*, London: MIT Press.
- Maienborn, Claudia (2007), On Davidsonian and Kimian states, in Ileana Comorovski & Klaus von Heusinger (eds.), (2007), *Existence: Semantics and Syntax*, 107–130, Dordrecht: Springer.
- Maienborn, Claudia (2019), Events and states, in Robert Truswell (ed.), (2019), *The oxford handbook of event structure*, oxford handbooks, 50–89, Oxford: Oxford University Press.
- Pesetsky, David (1995), *Zero Syntax: Experiencers and cascades*, Cambridge: MIT Press.

The syntax of ill health in Estonian

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Keywords: Estonian, experiencer marking, intransitivity, idiosyncratic case marking, subject alignment

This paper aims to contribute towards defining an adequate grammatical subject (cf Haider, forthcoming, Bakker & Siewierska 2007) in Estonian, drawing on evidence from empirical data. This is done firstly by establishing the type frequency of the occurring expressions of bodily ailments, and secondly, by offering a syntactic analysis of the arguments involved. The prototypical Estonian subjects show nominative case marking, verb agreement and e.g. participate as antecedents in reflexivisation and as pivots in control and raising constructions (e.g. Erelt et al. 1993, Metslang 2013, Erelt & Metslang 2017). Yet, there is disagreement on analysing arguments in different non-transitive constructions, e.g. such as the ones used to express conditions of ill health.

The main focus of the discussion is on mapping the syntactic properties of arguments in expressions for invisible ailments, as they can be said to be similar to sensations in general. Therefore, one would expect these two types of expressions to also be structurally similar. In Estonian, the syntactically obligatory experiencer role is marked with either allative or adessive case and it shows the subject control property (e.g. Erelt et al. 1993, Erelt & Metslang 2017), as in (1):

- | | | | | | | |
|----|-----------------------------|-----------|---------------|--------------------------|-----------|---------|
| 1. | a. Mulle | meeldib | jäätis. | b. Mul | on | valu. |
| | 1.SG.ALL | like.3.SG | ice cream.NOM | 1.SG.ADE | be.3.SG | painful |
| | 'I like ice cream.' | | | 'I am feeling pain.' | | |
| 2. | a. Kõht | valutab | | b. Mul | kõht | valutab |
| | stomach.NOM | hurt.3.sg | | 1.SG.ADE stomach.NOM | hurt.3.sg | |
| | '(The) stomach is hurting.' | | | 'My stomach is hurting.' | | |
| | c. Mu | kõht | valutab | | | |
| | 1.SG.GEN stomach.NOM | hurt.3.sg | | | | |
| | 'My stomach is hurting.' | | | | | |

Although at first glance structurally similar, the constructions for ill health in (2) have an optional experiencer argument without syntactic subject properties. Instead, there is a nominative-case preverbal argument with the coding and behavioural subject properties, yet with semantic object properties.

For categorising the expressions of bodily injuries and the dative experiencers in Old Germanic, Bruno & Kerkhof (2020) used Burridge's (1996) hierarchy of involvement, whereby the body parts are coded as core or peripheral argument depending on whether the focus is on the location of the injury or the effect on the body part.

The corpus data indicate that the Estonian facts can be captured within the same categories and in the same order. The most frequent type is the one where the ailing body part is mentioned without the possessing person (69.2%), as in (2a). The type with the locative marked person independent of the body part was next (18.5%) (2b), and the third most frequent pattern had the person as the genitive

modifier of the body part (10.9%). The remaining instances were idiosyncratic with either the nominative experiencer and the body part carrying the object marking (partitive case) (1.1%), or the adessive experiencer and the body part in the locative marking (0.3%).

In conclusion, the research reported here shows that Burridge's hierarchy of involvement has a wider applicability than merely the Germanic language family. Moreover, the adequate analysis of a syntactic subject in Estonian seems not to be viable in terms of a blanket syntactic function but rather as involving construction-specific functions. This may point to the fact that Estonian could be classified as a language with no single subject alignment (e.g. Bickel & Nichols 2009).

The corpus:

Sketchengine. Concordance for Estonian.

References

- Bakker, Dik & Siewierska, Anna. 2007. Another take on the notion Subject. In Mike Hannay & Gerard J. Steen (eds.), *Structural-functional studies in English grammar*. 141-158. Amsterdam: Benjamins.
- Bickel, Balthasar; Nichols, Johanna. 2009. Case marking and alignment. In Malchukov, Andrej & Spencer, Andrew. *The Oxford handbook of case*. 304-321. Oxford: Oxford University Press.
- Bruno, Laura; Kerkhof, Peter Alexander. 2020. Bodily Injuries and Dative Experiencers in Old Frisian. *Amsterdamer Beiträge zur älteren Germanistik*, 04/2020, Volume 79, Issue 4.
- Burridge, K., 1996. "Degenerate Cases of Body Parts in Middle Dutch", in: *The grammar of inalienability. A typological perspective on body part terms and the part-whole relation*, eds. H. Chappel and W. McGregor Berlin/New York: De Gruyter, 679–710.
- Erelt, M. and H. Metslang (Eds.) 2017. *Eesti keele süntaks*. [The Syntax of Estonian]. Eesti keele varamu 3. Tartu: Tartu Ülikooli Kirjastus.
- Erelt, M. et al. 1993. *Eesti keele grammatika. II. Süntaks*. Lisa: Kiri. The Grammar of Estonian II. Syntax. Appendix: Orthography.] Tallinn: Eesti Teaduste Akadeemia Keele ja Kirjanduse Instituut.
- Haider, H. Forthcoming. On the Cognitive Evolution of Grammatical Subjects. https://www.academia.edu/113208625/ON_THE_COGNITIVE_EVOLUTION_OF_GRAMMATICAL_SUBJECTS?email_work_card=view-paper
- Metslang, Helena. 2013. Coding and behaviour of Estonian subjects. *Journal of Estonian and Finno-Ugric Linguistics* 4(2). 217–293.

Subjecthood and dative alternating predicates in Romanian

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Keywords: Romanian, subject tests, dative, non-canonical, alternating

This talk addresses the Romanian construction in (1a–b), in which certain predicates select for two alternating argument structures (Dat-Nom vs. Nom-Dat). Remarkably, in these alternating structures, both arguments preserve their case encoding, regardless of their position with respect to the predicate:

(1a)	<i>Fetei</i>	<i>îi</i>	<i>place</i>	<i>istoria</i>	(1b)	<i>Istoria</i>	<i>îi</i>	<i>place</i>	<i>fetei</i>
	girl.DAT	her.DAT	pleases	history.the.(NOM)		history.the.(NOM)	her.DAT	pleases	girl.DAT
	'The girl likes history'					'History pleases the girl'			

In the literature, this type of structure is called *alternating predicate construction*, and is argued to be found in several old and modern Indo-European languages (Barðdal 2023, Somers & Barðdal 2022). The *alternating predicate construction* is a type of oblique subject construction that selects for two distinct and opposed argument structures: DAT-NOM vs. NOM-DAT (Barðdal et al. 2019), of which the DAT-NOM pattern is often analyzed as a case of topicalization (Dobrovie-Sorin 1987). Remarkably, when the order of the arguments is NOM-DAT, the nominative behaves like a subject, while in the DAT-NOM configuration, the dative is argued to take on the subject role, hence refuting the topicalization analysis. Romanian appears to have both accusative and dative alternating predicates. This research is part of a larger project that investigates the productivity and the evolution of the alternating predicate construction in Romanian from a diachronic and synchronic perspective by means of corpus studies and psycholinguistic experiments aiming to unveil what triggers the choice for one argument structure or the other in the speaker's mind.

In this talk, I focus on the alternating predicates of the type DAT-NOM vs. NOM-DAT. More specifically, I will be testing the subject status of both the dative and the nominative arguments in present-day Romanian. In order to do this, I apply a set of subject diagnostics to examples containing these structures and contrast them with examples containing nominative canonical subjects. In my study, I will make use of the inventory of subject tests established for Romanian non-nominative arguments by Illoaia (2023, 2021), and applied on MIHI EST structures by Illoaia & Van Peteghem (2021). This inventory comprises, among others, tests such as word order, control, subject-to-subject raising, deletion in telegraphic style, and the ability to take secondary predicates. The analyzed examples will be selected from the present-day Romanian web corpus roTenTen21 provided by the Sketch Engine platform (Jakubíček et al. 2013).

At a first look at the available data, I expect that this study will confirm the subjecthood hypothesis of both the dative and the nominative argument, each time when they occur preverbally. I also expect to be able to reject the topicalization hypothesis by using the test of bare quantifiers in clause-initial position, among others.

References

- Barðdal, Jóhanna (2023), *Oblique Subjects in Germanic: Their status, history and reconstruction*, Berlin, Boston: De Gruyter Mouton,
- Barðdal, Jóhanna, Thórhallur Eythórsson & Tonya Kim Dewey (2019), The Alternating Predicate Puzzle: Dat-Nom vs. Nom-Dat in Icelandic and German, *Constructions and Frames* 11(1), 107–170.
- Dobrovie-Sorin, Carmen (1987), A propos de la structure du groupe nominal en roumain, *Rivista di Grammatica Generativa*, Vol. 11, Unipress, 123–152.
- Ilioiaia, Mihaela (2021) *Non-canonical subject marking in Romanian: Status and evolution of the MIHI EST construction*. Ghent University PhD Dissertation.
- Ilioiaia, Mihaela (2023) *The MIHI EST construction: An instance of non-canonical subject marking in Romanian*. Berlin and Boston: De Gruyter, 317 p..
- Ilioiaia, Mihaela & Marleen Van Peteghem (2021) Dative experiencers with nominal predicates in Romanian: a synchronic and diachronic study. *Folia Linguistica* 55(s42–s2). 255–290.
- Jakubíček, Miloš, Adam Kilgarriff, Vojtěch Kovář, Pavel Rychlý & Vít Suchomel. 2013. The TenTen corpus family. In *7th International Corpus Linguistics Conference CL*, 125–127. Lancaster.
- Somers, Joren & Jóhanna Barðdal (2022) Alternating Dat-Nom/Nom-Dat Verbs in Icelandic: An Exploratory Corpus-Based Analysis, *Working Papers in Scandinavian Syntax* 107, 83–110.

GS Sound symbolism

On the patterning of sound imitation by onomatopoeia

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Sapir's (1929) and Köhler's (1929) psycholinguistic studies of sound symbolism mark the beginning of a systematic interest in the examination of the iconic nature of words that represent different aspects of human sensory perception, i.e., ideophones, including onomatopoeia as their most iconic signs. Their work also gave an important impetus to extensive experimental research into the symbolic nature of sounds, i.e., into sound symbolism in various languages, e.g., Westbury (2005), Iwasaki, Vinson and Vigliocco (2007) Nielsen and Rendall (2011), Bremner et al. (2013), Lockwood and Dingemanse (2015), Sidhu and Pexman (2015), and Lockwood, Dingemanse, and Hagoort (2016), to name at least a few. Most of these experiments were based on the interpretation of onomatopoeias or ideophones.

This paper reports on an experiment that differs from those mentioned above by focusing on the formation of new onomatopoeic words. The purpose is to identify the degree of agreement of the experiment participants in imitating recordings of sound events and to establish onomatopoeic patterns that reflect the tendencies in individual structural parameters of onomatopoeia. The strength of such patterns can indicate the respective role of image iconicity and arbitrariness in onomatopoeia formation.

The sample consists of ten sound events (rain, elephant, monkey, crow, bird chirping, electrostatic noise, phone vibration, explosion, glass breaking, and alarm). Three sound events are characterized by a low frequency, four mid-frequency, and three high frequency. They differ in the course of loudness (monotonous, falling, rising, oscillating) and the type of sound-event course (one-off, continuous, recurring). The main criterion for their choice was the non-existence of a corresponding onomatopoeic word in the Slovak language.

Fifty-one undergraduates were asked to imitate the sound events by representing the proposed onomatopoeias by letters of the Slovak alphabet. The participants could listen to the individual sounds (using headphones) as many times as they wished and could stop the recording at any time. The analysis of the data aims to establish onomatopoeic patterns based on five defining parameters: (i) realization of the initial position; (ii) realization of the final position; (iii) realization of the transition; (iv) presence vs. absence of lengthening; (v) presence vs. absence of repetition.

The onomatopoeic patterns are defined at three levels of specificity/generalization: (i) the level of a concrete sound; (ii) the level of sound types based on the manner of articulation and voice; (iii) the level of consonants vs. vowels.

The data are also evaluated in relation to the universal and language-specific phonesthemes identified in the available literature.

The results strongly support the image iconicity of onomatopoeic words, but at the same time, they imply a rejection of the views of the non-arbitrary nature of onomatopoeic words (see, e.g., Hutchins 1998; D'Onofrio 2013; Sasamoto & Jackson 2016; Knoeferle et al. 2017). The paper comments on unequal 'strength' of the onomatopoeic patterns for individual sound events and discusses the role of sound-symbolism.

References

- Bremner, Andrew J.; Serge Caparos; Jules Davidoff; Jan De Fockert; Karina J. Linnell; And Charles Spence. 2013. 'Bouba' and 'Kiki' in Namibia? A remote culture make similar shape–sound matches, but different shape–taste matches to Westerners. *Cognition* 126. 165–72.
- D'Onofrio, Anette. 2013. Phonetic detail and dimensionality in sound-shape correspondences: Refining the bouba-kiki paradigm, *Language and Speech* 57: 367–93.
- Hutchins, Sharon S. 1998. *The psychological reality, variability, and compositionality of English phonaesthemes*. PhD thesis. Emory University. ProQuest Dissertations & Theses Global
- Iwasaki, Noriko, David P. Vinson, & Gabriella Vigliocco. 2007a. How does it hurt, kiri-kiri or siku-siku? Japanese mimetic words of pain perceived by Japanese speakers and English speakers. In Masahiko Minami (ed.), *Applying theory and research to learning Japanese as a foreign language*, 2-19. Newcastle: Cambridge Scholars Publishing.
- Knoeferle, Klemens, Jixing Li, Emanuela Maggioni & Charles Spence. 2017. What drives sound symbolism? Different acoustic cues underlie sound-size and sound-shape mappings. *Scientific Reports* 7. 5562.
- Köhler, Wolfgang. 1929. *Gestalt psychology, an introduction to new concepts in modern psychology*. New York: Liveright.
- Lockwood, Gwylim & Mark Dingemans. 2015. Iconicity in the lab: a review of behavioral, developmental, and neuroimaging research into sound-symbolism. *Frontiers in Psychology* 6(1246). 1–14.
- Lockwood, Gwylim, Mark Dingemans & Peter Hagoort. 2016. Sound-symbolism boosts novel word learning. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 42(8), 1274–1281.
- Nielsen, Alan & Drew Rendall. 2011. The sound of round: Evaluating the sound-symbolic role of consonants in the classic *Takete-Maluma* phenomenon. *Canadian Journal of Experimental Psychology / Revue canadienne de psychologie expérimentale*, 65(2). 115–124.
- Sapir, Edward. 1929. A study in phonetic symbolism. *Journal of Experimental Psychology*, 12(3). 225–239.
- Sasamoto, Ryoko & Rebecca Jackson. 2016. Onomatopoeia – Showing-word or Saying-word? Relevance Theory, lexis, and the communication of impressions. *Lingua* 175–176. 36–53.
- Sidhu, David M. & Penny M. Pexman. 2015. What's in a Name? Sound Symbolism and Gender in First Names. *PLoS ONE*. <https://doi.org/10.1371/journal.pone.0126809>.
- Westbury, Chris F. 2005. Implicit sound symbolism in lexical access: Evidence from an interference task. *Brain and Language* 93. 10–19.

The evolution of sound symbolism in the lexicon

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The development of iconic patterns (Blasi et al. 2016, Johansson et al. 2020) in the world's languages remains poorly understood. We use a phylogenetic model to explore how the evolution of lexical traits mediates sound symbolism. Specifically, we model the evolution of sound symbolic patterns within root-meaning traits (which indicate whether forms from certain cognate classes are used for particular concepts; Ringe et al. 2002, Chang et al. 2015) in multiple families via a continuous-time Markov (CTM) process in which the system transitions between the states TRAIT ABSENT (e.g., if a cognate of Proto-Indo-European *nas- is not used for the concept NOSE), TRAIT PRESENT, SOUND ABSENT (e.g., if a cognate of *nas- is used for NOSE, but does not contain the sound /n/) and TRAIT PRESENT, SOUND PRESENT (e.g., if a cognate of *nas- is used for NOSE and contains the sound /n/).

This model allows us to infer whether a word form is more likely to enter into use for a particular concept if it contains a particular sound. Additionally, we can infer whether processes which alter word forms are more likely to introduce or remove certain sounds in words with certain meanings. Finally, we can assess whether a vocabulary item is more likely to be replaced if a particular sound is present or absent (e.g., if it lacks a beneficial sound symbolic cue). In addition to this, we can assess the long-term propensity towards sound symbolism in certain concepts via the stationary probability of the CTM process of trait evolution.

We first apply the model described above to individual sound-meaning correspondences reported in the literature. With a small number of exceptions, we find little support for the idea that sound symbolism persists over time in individual concepts. This result is unsurprising when taking into account the fact that sound symbolic patterns may be infrequent overall, but relatively more frequent for certain concepts than for others. We investigate this issue further by applying our model jointly to the evolution of sounds across pairs of meanings (e.g., /n/ in traits corresponding to the concept EYE vs. NOSE), which allows us to assess whether evolutionary pressures are more likely to foster the presence of sounds in certain concepts versus others. Observing stationary probabilities of sound presence in pairs of concepts, we find that certain sound-meaning associations are weaker than previously suggested, when accounting for the diachronic dynamics of lexical change. This may be due to the fact that some previously reported associations are an artifact of slow-changing vocabulary items and historically deep areal patterns. In cases where we find robust relative evidence for a sound-meaning correspondence, associations persist largely because forms with a particular sound (e.g., /l/ in TONGUE) are less likely to be replaced in particular meanings than words for other concepts with the same sound, but not necessarily due to processes which alter word forms or because forms with particular sounds are more likely to enter into use in particular meaning functions. Our results clarify the diachronic mechanisms underlying sound symbolism in the world's languages.

References

Blasi, D. E., S. Wichmann, H. Hammarström, P. F. Stadler, and M. H. Christiansen (2016). Sound-meaning association biases evidenced across thousands of languages. *Proceedings of the National Academy of Sciences* 113(39), 10818–10823.

- Chang, W., C. Cathcart, D. Hall, and A. Garrett (2015). Ancestry-constrained phylogenetic analysis supports the Indo-European Steppe Hypothesis. *Language* 91(1), 194–244.
- Johansson, N. E., A. Anikin, G. Carling, and A. Holmer (2020). The typology of sound symbolism: Defining macro-concepts via their semantic and phonetic features. *Linguistic Typology* 24(2), 253–310.
- Ringe, D., T. Warnow, and A. Taylor (2002). Indo-European and computational cladistics. *Transactions of the Philological Society* 100(1), 59–129.

GS Language contact II

Pragmatic borrowings in different contact constellations: Finland Swedish

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Keywords: pragmatic borrowing, media language, language contact, language borrowing, Finland-Swedish

For hundreds of years, Swedish and Finnish have been in contact as territorial, official languages in Finland. While Finland Swedish is currently listed as a mother tongue for only about 5 percent of the total Finnish population, it is nonetheless a language with a long history and a strong presence in Finland, especially in the southern and western coastal areas.

In the past decades, English has become an additional source of language contact for both Finnish and Swedish. While our previous work has explored the adoption and integration of pragmatic borrowings from English into Finnish (see, e.g., Peterson and VaaNovaara 2014; VaaNovaara and Peterson 2019, 2023), in this presentation we focus on data from Finland Swedish.

This presentation draws data from 15 podcasts and radio talk shows in contemporary Finland Swedish, dating from the past three years. The podcasts and radio talk shows have been transcribed into a data set comprising about 135,000 words. The transcribed speech represents different social categories of speakers, including different genders, ages, and dialect regions of Finland. In the resulting data set, we have identified 190 pragmatic borrowings, the vast majority of which are swear words, but also include items such as *good riddance* and *stupid*.

Our investigation of pragmatic borrowings from Finland Swedish into English focuses on three main research questions: 1) Which kinds of pragmatic borrowings come from which language, Finnish or English? Is there a division of domains and functions? 2) Do pragmatic borrowings from English first filter through Finnish, for example as with older borrowings such as *fiilis* (Fin) *filis* (Sw), from English *feeling*? 3) Are there social differences in who uses pragmatic borrowings from which language, Finnish or English? For example, are younger FiSw speakers more inclined to use pragmatic borrowings from English than from Finnish?

Initial findings indicate that, for the media genre investigated, English is a more fruitful source of borrowings than Finnish in Finland Swedish. Our statistical analyses, using Bayesian methods in Python, are currently underway. The results of these analyses, which we aim to debut in this presentation, will demonstrate any distinct functions of English pragmatic borrowings in the media data, for example related to collocates and surrounding speech. A further finding will show social distinctions among users of pragmatic borrowings from English. Initial findings indicate a split between younger and older speakers, with speakers under 30 showing more robust use of English in their Finland Swedish discourse. So far, the data show that English-sourced swear words, especially *fuck* and *shit*, are relatively frequent in the data. The borrowing *fuck*, in particular, exhibits high levels of syntactic and morphological integration, for example in expressions such as *fuckar med* 'fucks with [something]' and *all5ng går åt fuckete* 'everything goes to fuck/shit'.

References

- Peterson, Elizabeth and Johanna VaaNovaara (2014), *Kiitos* and *pliis*: the relationship of native and borrowed politeness markers in Finnish. *Journal of Politeness Research* 10:2, 247-269. doi10.1515/PR-2014-0011.
- VaaNovaara, Johanna and Elizabeth Peterson (2019), Same old *paska* or new *shit*? On the stylistic boundaries and social meaning potentials of swearing loanwords in Finnish. *Ampersand* 6, November. doi 10.1016/j.amper.2019.100057.

VaaNovaara, Johanna and Elizabeth Peterson (2023), HiNoako damn tekee suomessa: Itseraportointimenetelmään perustuva tutkimus englannin kielestä lainatun voimasanan sosiaalisista merkityspotentiaaleista ja käytöstä osana suomea. *Viri@jä* 127, 2: 191–219.

Contact effects in nominal number: A typological survey

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Keywords: number systems; language contact; typology; convergence; stability

Over the past decades, several generalizations have been proposed about what is likely to be transferred (or not) between languages in contact. Yet, the majority of the existing literature on contact-induced change stems from case-studies of individual languages and linguistic areas. Building on recent developments in the field of comparative language contact research (Di Garbo and Napoleão de Souza 2023), this paper presents the results of a worldwide survey of contact effects in nominal number systems in a sample of 147 languages (Figure 1).

Number is the most frequent feature of nominal morphosyntax in the languages of the world. Previous studies (e.g. Gardani 2012; Seifart 2017) show that the coding of nominal plurality on nouns is particularly sensitive to the effect of contact. This is usually explained with the fact that features of inherent inflection (e.g. number categories for nouns and TAM categories for verbs) are more likely to be affected by contact than features of contextual inflection (e.g. gender-number agreement on the verb).

We investigate whether certain dimensions of number marking are more strongly associated with contact effects than others, and whether these associations hold across different types of number systems, as attested worldwide. Our sample represents 49 contact scenarios between pairs of genealogically unrelated languages (called the Focus and Neighbor language). Each contact pair is associated with a control language, which is a close relative of the Focus language (called the Benchmark language).

To study the number systems of the sampled languages, we use a combination of quantitative and qualitative methods. Quantitatively, we run Principle Component Analysis in the R package FactoMineR (Lê and Hudson 2008) to explore what dimensions of number marking contribute the most to explaining similarities between Focus and Neighbor languages (convergence) vis-à-vis similarities between Focus and Benchmark languages (stability). We find that the first two Dimensions of the PCA explain 34% of the variance attested in the dataset. While Dimension 1 is strongly associated with the retention of features between Focus and Benchmark languages, Dimension 2 speaks for convergences between Focus and Neighbor languages (Figure 2). Notably, we find that Focus-Neighbor similarities in plural marking and the encoding of number distinctions on nouns strongly contribute to the variance explained by Dimension 2, that is, our ‘contact’ dimension.

Conversely, Focus-Benchmark similarities in the marking of the singular strongly contribute to the variance explained by Dimension 1, that is, with our 'stability' dimension. We then explore the behavior of these dimensions in a qualitative fashion, by presenting and discussing several examples of contact-induced changes in individual languages of the sample. In line with previous literature, we find that stability in plural marking is mostly confined to contextual inflection while plural marking on nouns (inherent inflection) is more prone to convergence.

While corroborating earlier observations based on case studies of individual languages and contact scenarios, these results show the added value that typological methods for the comparative study of language contact bring to the understanding of convergence and stability in nominal morphosyntax.

References

- Di Garbo, Francesca & Ricardo Napoleão de Souza (2023), A sampling technique for worldwide comparisons of language contact scenarios. *Linguistic Typology* 27(3). 553-589. <https://doi.org/10.1515/lingty-2022-0005>
- Gardani, Francesco (2012), Plural across inflection and derivation, fusion and agglutination. In Lars Johanson & Martine Robbeets (eds.), *Copies versus cognates in bound morphology*, 71–97. Leiden: Brill.
- Lê, Sébastien, Josse Julie, and Husson François (2008), FactoMineR: A Package for Multivariate Analysis. *Journal of Statistical Software* 25(1). 1-18.
- Seifart, Frank (2017), Patterns of affix borrowing in a sample of 100 languages. *Journal of Historical Linguistics*, Vol. 7(3). 389-431.

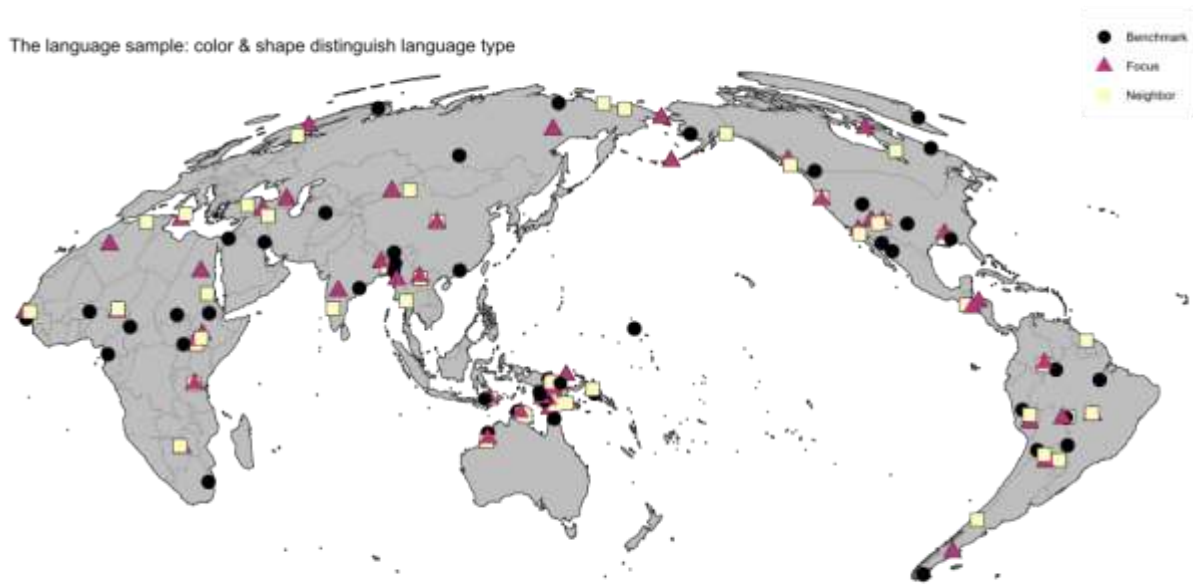


Figure 1: The language sample

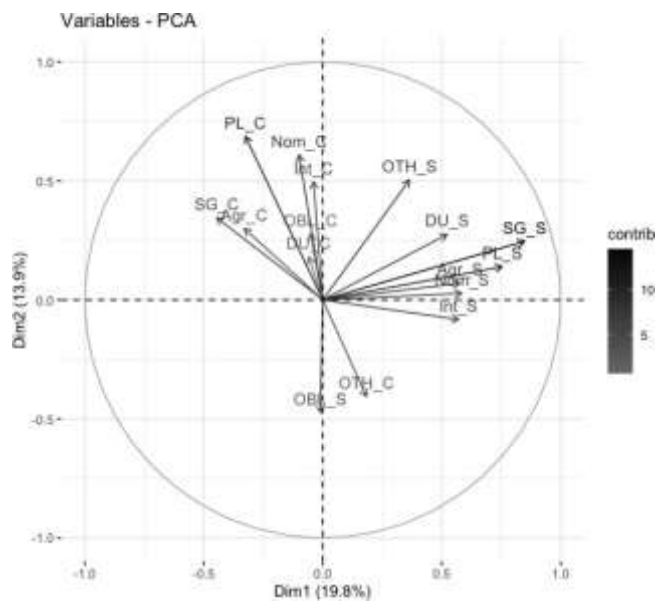


Figure 2: Factor map showing the contribution of each variable to Dimension 1 and 2. FL-NL convergence in plural marking (PL_C) and number marking on nouns (NOM_C) are the variables that contribute most to the variance explained by Dimension 2 (the 'contact' dimension). Stability in singular marking (SG_S) is the variable that contributes most to the variance explained by Dimension 1 (the 'stability' dimension).

Testing the Matrix Language Frame model with historical data: English, Latin and Greek in early modern Britain

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Keywords: code-switching, syntax, English, Latin, Greek

In research on code-switching, one central area focuses on its grammatical aspects. These studies have set out to describe and classify the various grammatical forms of code-switching as well as to establish constraints on code-switching by identifying permissible and impermissible switch-sites. In the past few decades, there has also been growing interest in what may be termed ‘historical code-switching’, in other words code-switching encountered in historical texts. Much of the previous research on historical code-switching has had a sociolinguistic, pragmatic, or broadly philological focus, while the grammatical side has received less attention. In particular, syntactic theories and models of code-switching developed with the aid of modern data, such as the *equivalence constraint* (Poplack 1980) or the *Matrix Language Frame model* (Myers-Scotton 1993, 2002), have not yet been tested extensively with historical data (but see e.g. Schendl 2000, Adams 2003, Halmari, and Regetz 2011, Elder, and Mullen 2019, and Keller 2020). The present paper contributes to filling this gap by applying the Matrix Language Frame model to a large dataset of historical code-switching. The main research question is: “To what extent is the Matrix Language Frame model able to account for the grammatical patterns found in historical code-switching?”.

The material for this study consists of a collection of academic texts from early modern Britain (ca. 1500–1700), in the form of both manuscripts and early printed books. The texts include speeches, plays, and poems, and they share the feature of having been composed and/or performed in early modern grammar schools. The data collected from these texts consists of approximately 1,000 instances of code-switching (both interclausal and intraclausal) between English, Latin and Greek. The instances of code-switching have been located by close-reading, which also makes it possible to take the context of each individual example into account in great detail. The data are analysed by using the Matrix Language Frame model as a framework, focusing especially on its predictions regarding permissible switches. This theory has been chosen for the present study because it is probably the best-known and most extensive model developed specifically to account for the grammar of code-switching.

Based on comparable earlier studies (e.g. Keller 2020), it is expected that the model is able to account for the majority of the data, at least in terms of the permissible switch-sites. In discussing the results, I address any identified variability not only in terms of the different language pairings analysed in the study (mainly English-Latin and Latin-Greek) but also in terms of the different text-types, which may promote the use of different kinds of code-switching patterns (e.g. humorous switching in comedies). By testing an important syntactic model of code-switching with a novel historical dataset, the present study advances our understanding not only of the grammar of historical code-switching in particular but also of the nature and mechanisms of code-switching in general.

References

- Adams, J. N. (2003), *Bilingualism and the Latin Language*, Cambridge: Cambridge University Press.
- Elder, Olivia, and Mullen, Alex (2019), *The Language of Roman Letters: Bilingual Epistolography from Cicero to Fronto*, Cambridge: Cambridge University Press.
- Halmari, Helena, and Regetz, Timothy (2011), Syntactic aspects of code-switching in Oxford, MS Bodley 649, in Herbert Schendl, and Laura Wright (eds), (2011), *Code-Switching in Early English*, Berlin / Boston: De Gruyter Mouton, 115–153.
- Keller, Mareike (2020), *Code-Switching: Unifying Contemporary and Historical Perspectives*, Cham: Palgrave Macmillan.
- Myers-Scotton, Carol (1993), *Duelling Languages: Grammatical Structure in Codeswitching*, Oxford: Clarendon Press.
- Myers-Scotton, Carol (2002), *Contact Linguistics: Bilingual Encounters and Grammatical Outcomes*, Oxford: Oxford University Press.
- Poplack, Shana (1980), Sometimes I'll start a sentence in Spanish Y TERMINO EN ESPAÑOL: Toward a typology of code-switching, *Linguistics* 18(7–8), 581–618.
- Schendl, Herbert (2000), Syntactic constraints on code-switching in medieval texts, in Irma Taavitsainen, Terttu Nevalainen, Päivi Pahta, and Matti Rissanen (eds), (2000), *Placing Middle English in Context*, Berlin: Mouton de Gruyter, 67–86.

Discourse in contact: An areal study of two formulas

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Research in the domain of language contact and areal studies so far has focused on the diffusion of lexical, phonological and grammatical elements, and to a smaller extent - lexical semantics (Koptjevskaja-Tamm et al. 2022). Much less is known about the spread of discourse forms, although the mechanisms through which discourse units spread are presumably different from that characterizing the lexicon, phonology and grammar. There are a few studies of discourse formulas in Africa (Ameka 2020, Ameka 1999, Ameka 2006), which cover several languages and do not aim at generalizations. Among the rare studies of discourse forms are a monograph on widespread idioms in Europe by Piirainen (2012) and an unpublished database by David Gil of 'Where are you going' / 'Where are you?' greetings in 450 languages.

In this talk, we look at the diffusion of two discourse formulas across the East Caucasus (46 languages from four families), using elicitation, grammars and dictionaries as sources. We take the functions of these formulas as a ground for comparison: morning greetings for the first formula, and farewell wishes for the second. We look at instances of pattern and matter copying across the languages of the East Caucasus, and analyze their areal distribution.

Two semantic types of morning greetings were found: questions about the night's rest ('Did you wake up?'), and greetings based on the combination of concepts like "morning" and "good" ('Good morning') (author 2021). In the domain of farewell formulas (parallel to French 'Bon voyage!') numerous different expressions occurred, the most frequent being 'May the road be good' (or 'Good road!') and 'May the road be straight' (author ms).

There are numerous instances of pattern copying - when the formula is calqued to the recipient language by means of a word-by-word translation. For example, most languages where Avar is spoken as a lingua franca use a farewell formula which means "May the road be straight", while the words themselves are not borrowed from Avar. Matter copying, i.e., when the language takes the whole formula or a part of it from another language, can be exemplified by cases in which the Avar phrase *rorč'ami?* 'Did you (pl.) wake up?' (= 'good morning') is borrowed by some adjacent languages.

The main impressionistic observation which arises from these two case studies in Daghestan is that the formulas are diverse (there is great variation across the area), and that both matter and pattern copying are abundant. Some formulas cover very large areas and cross genetic boundaries. In both studies the same spread zones influenced by large lingua francas - Avar (in Central Daghestan) and Azerbaijani (in South Daghestan) - were attested. We cannot come up with any phonological or grammatical phenomena which are spread in the East Caucasus to the same extent. This means that discourse areas (in terms of Beier et al. 2002; also called pragmatic areas in de Vries 2006) have different properties than the areas of grammatical phenomena, covering larger territories and being less susceptible to genetic borders.

References

- Ameka, Felix K. (1999). Partir c'est mourir un peu: Universal and culture specific features of leave taking. *RASK International Journal of Language and Communication*, 9, pp.257-283.
- Ameka, Felix K. (2006). Grammars in contact in the Volta Basin (West Africa): On contact induced grammatical change in Likpe. In Alexandra Y. Aikhenvald & R. M. W. Dixon (eds.), *Grammars in contact: A crosslinguistic typology*, 114–142. Oxford: Oxford University Press.
- Ameka, Felix K. (2020). "'I sh. t in your mouth": areal invectives in the Lower Volta Basin (West Africa)." *Swearing and cursing: contexts and practices in a critical linguistic perspective* (2020): 121-144.
- Beier, C., Michael, L., & Sherzer, J. (2002). Discourse forms and processes in indigenous lowland South America: An areal-typological perspective. *Annual Review of Anthropology*, 31(1), 121-145.
- De Vries, L. 2006. Areal pragmatics of New Guinea: thematization, distribution and recapitulative linkage in Papuan narratives. *Journal of Pragmatics* 38, 811--828.
- Dobrushina, N. Submitted. "Farewell formulas". In: *Typological Atlas of the Languages of Daghestan (TALD)*. Ed. by M. Daniel, K. Filatov, T. Maisak, G. Moroz, T. Mukhin, C. Naccarato and S. Verhees. Moscow: Linguistic Convergence Laboratory, NRU HSE. DOI: 10.5281/zenodo.6807070. <http://lingconlab.ru/dagatlas>.
- Koptjevskaja-Tamm, Maria, Antoinette Schapper and Felix Ameka, eds. 2022. Areal typology of lexico-semantic. Special issue of *Linguistic Typology*, 26 (2).
- Naccarato, C. and S. Verhees (2021). "Morning greetings". In: *Typological Atlas of the Languages of Daghestan (TALD)*. Ed. by M. Daniel, K. Filatov, T. Maisak, G. Moroz, T. Mukhin, C. Naccarato and S. Verhees. Moscow: Linguistic Convergence Laboratory, NRU HSE. DOI: 10.5281/zenodo.6807070. <http://lingconlab.ru/dagatlas>.
- Piirainen, Elisabeth. 2012. *Widespread Idioms in Europe and Beyond. Toward a Lexicon of Common Figurative Units*. New York etc.: Peter Lang(= International Folkloristiks 5).

How borrowing-resistant are basic vocabulary lists for the Uralic language family? A quantitative evaluation

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Keywords: basic vocabulary, quantitative methods, Uralic language family, borrowing

Several curated basic vocabulary lists have been proposed over the years (i.e. Swadesh 1952, 1955; Haspelmath & Tadmor, 2009) and used for cross-linguistic comparison but their accuracy for different language families is rarely evaluated. Common for the lists is that the meanings and words corresponding to them are claimed to be resistant to borrowing. This stability is a key criterion for the so-called “basicness”. This paper examines quantitatively how well popular basic vocabulary lists fit the Uralic family, i.e. how stable are the lists and whether some meanings can be considered less basic.

The study uses a Uralic basic vocabulary dataset, UraLex 2.0 (De Heer et. al., 2021) containing the Swadesh-100, Swadesh-200, Leipzig-Jakarta lists and an expansion of WOLD401-500 as a less basic sample (313 meanings in total). The data set includes coding for inherited and borrowed meanings, certainty estimates for the borrowings, donor language and synonymy for maximal data availability. To assess stability of the basic vocabulary meanings for Uralic, each meaning was given a borrowability score using Bayesian logistic regression. The method accounts for geographical and genealogical factors behind the borrowing events. The meanings were further divided into clusters according to their borrowability scores allowing comparing the lists with each other and identifying meanings that do not follow the expectation of stability.

The results reveal that the curated basic vocabulary lists are a good fit for the Uralic family; however, the Swadesh-100 appears as the most borrowing-resistant for Uralic. Thus, the quantitative analysis provides a higher resolution within basic vocabulary and refine the methodology for meaning ranking. All lists contain meanings, which do not follow the expectations on stability (i.e. more borrowable in the Swadesh and Leipzig-Jakarta lists (ca. 10 % of the list) or highly stable in the WOLD401-500 list (ca. 25 % list)). The results show that the criterion suggested for meaning selection and borrowing can play a noticeable role in constructing basic vocabulary data. This can have consequences for i.e. reconstructing genealogical relationships, which is a common application of such data. This study demonstrates that the actual “basicness” of even well-known basic vocabulary lists and items therein fluctuates and should be evaluated critically as not all meanings in the lists are equally basic.

References

- De Heer, Mervi, Heikkilä, Mikko, Syrjänen, Kaj, Lehtinen, Jyri, Vesakoski, Outi, Suutari, Toni, Dunn, Michael, Määttä Urho, & Leino, Unni-Päivä (2021), *Uralic basic vocabulary with cognate and loanword information (Version v2.0)* [Data set]. Zenodo. <http://doi.org/10.5281/zenodo.4777568>
- Swadesh, Morris (1952), Lexicostatistic dating of prehistoric ethnic contacts, *Proceedings of the American Philosophical Society* 96, 452-463.
- Swadesh, Morris (1955), Towards Greater Accuracy in Lexicostatistic Dating, *International Journal of American Linguistics*, 21(2), 121-137.
- Haspelmath, Martin & Tadmor, Uri eds. (2009), *World Loanword Database*, Leipzig: Max Planck Institute for Evolutionary Anthropology.

Contact-induced change in Solon: The grammaticalization of the generic verb of speech

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Keywords: Tungusic languages, Khalkha Mongolian, language contact, morphosyntax, fieldwork

The grammaticalization of the generic verb of speech (henceforth: SAY) into complementizers, subordinating conjunctions, and other grammatical functions is cross-linguistically widespread (Güldemann 2001 and Chappell 2008), and the process of grammaticalization of SAY is susceptible to the influence of language contact (Matić and Pakendorf 2013). Solon, an under-described Northern Tungusic language spoken in Hulunbuir, China, has been significantly influenced by Dagur (Mongolic) in the past and strongly by Mongolian (Mongolic) at present (Khabtagaeva 2012, Janhunen 1996). As will be shown in this talk, Solon has borrowed certain features of SAY from Mongolian, a language with extensive grammaticalization of SAY (Brosig 2021).

The Solon data used for this study comprises narratives collected during fieldwork in 2022 and 2023, including fairytales (~47min) and life histories (~46min), totalling 10,630 words. The SAY verb *kun-* is attested 493 times, and the frequency of grammaticalized SAY reaches 82%, exceeding the frequencies observed in other Tungusic languages (Matić and Pakendorf 2013) and Khalkha Mongolian (Brosig 2021). The reasons for the high occurrence of grammaticalized SAY in Solon can clearly be explained by contact influence, but genre differences in language data probably play a role.

SAY has limited forms in Tungusic languages that mainly employ same-subject converbs (Matić and Pakendorf 2013). In contrast, grammaticalized SAY in Solon takes converbal, participial, and finite forms; this similarity to Mongolian can be the outcome of language contact. Besides, Solon has derived a specialized converb form restricted to 'SAY-CVB' *kun-kʰəŋ*, and the hearsay particle form *kunəŋ*.

The basic function of SAY *kun-* in Solon is context of quotation. As will be shown in this presentation, it has been grammaticalized into a hearsay marker (1), complementizer, a marker of purpose and reason adjuncts, metalinguistic naming, prospectivity and a discourse particle, demonstrating contact influence from Mongolian. This is reminiscent of Solon's sister language Western Even, which also developed various grammaticalized uses of SAY under the influence of Sakha (Turkic) (Matić and Pakendorf 2013 and Pakendorf 2009). The following examples show the contact influence of Mongolian in Solon by showing the similarities of the purpose clause. The purpose adjunct clauses are both linked by SAY, and the predicates of the adjunct clauses are marked by future/NPST elements, 1SG.NPST *-mi* in Solon (1), and the potential suffix *-an*, which can refer to a scheduled future, in Mongolian (2).

- (1) Solon (LT_004_Nawchi_03)
tʰɔ:tʃʰi tʃu:-ri: ala:r pɔxa-wal im-ɔ:-na:-mi kun-kʰəŋ
Then two-COLL spotty bull-REFL.PL drink-CAUS-AM-1SG.NPST say-CVB
ul-tʃʰə kunəŋ.
go-PST say.PTCL
'It is said that then they two left in order to (=saying: [I] will) make their spotty bull drink.'

(2) Khalkha Mongolian (Brosig 2021, glosses adapted)

<i>aaw</i>	<i>oroi</i>	<i>ažl-aas=aa</i>	<i>ömön</i>	<i>xüŋ-tei</i>
father	evening	work-ABL=REFL	before	person-COM
<i>uulz-an</i>	<i>ge-ed</i>	<i>gar-saŋ</i>	<i>baix.</i>	
meet-POT	say-CVB	exit-EST.PST	MP(perhaps)	

'Father probably went out in the evening before his work to (=saying [I] will) meet someone.'
(SC2: khalkha0015)

To conclude, grammaticalized SAY in Solon reflects contact-induced changes under Mongolian influence. These exceeds the extent of changes undergone by Western Even in this domain, in spite of the considerable contact pressure exerted by Sakha on Western Even dialects.

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References

- Brosig, Benjamin. 2021. Expressing intent, imminence and ire by attributing speech/thought in Mongolian. *Folia Linguistica*. De Gruyter Mouton 55(2). 433–483.
- Chappell, Hilary. 2008. Variation in the grammaticalization of complementizers from verba dicendi in Sinitic languages. *Linguistic Typology*. De Gruyter Mouton 12(1). 45–98.
- Güldemann, Tom. 2008. *Quotative Indexes in African Languages: A Synchronic and Diachronic Survey*. Berlin: De Gruyter Mouton.
- Janhunen, Juha. 1996. *Manchuria: An Ethnic History*. Helsinki: Finno-Ugrian Society
- Khabtagaeva, Bayarma. 2012. The Dagur Elements in Solon Evenki. *Acta Orientalia Academiae Scientiarum Hungaricae*. Akadémiai Kiadó 65(3). 335–346.
- Matić, Dejan & Brigitte Pakendorf. 2013. Non-canonical SAY in Siberia: Areal and genealogical patterns. *Studies in Language* 37(2). 356–412.
- Pakendorf, Brigitte. 2009. Intensive contact and the copying of paradigms — an even dialect in contact with Sakha (Yakut). *Journal of Language Contact* 2. 85–110.

Language contact landscape in the eastern Baltic region during the first millennium BC

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Keywords: Proto-Finnic, Germanic, Baltic, Late Bronze Age, loanwords

As is well-known, Proto-Finnic has obtained hundreds of loanwords from both Germanic and Baltic language varieties (Kallio 2015, Junttila 2015). For instance, Germanic loanwords include terms connected to field agriculture and seafaring (Hofstra 1985), while Baltic loans include terms for hunting and fishing and for more primitive agriculture (Junttila 2012). In addition, kinship terms denoting close relatives have been borrowed from both Germanic and Baltic (Metsäranta et al. 2023). All this has been seen as an indication of bi- and multilingual communities (Koptjevskaja-Tamm & Wälchli 2001). Based on Lang's (2020) recent hypothesis these groups resided during the first millennium BC in the eastern Baltic region: around the Daugava valley and northwards in the area of today's Estonia.

What has not been taken into account in earlier loanword studies concerning Proto-Finnic is the division of Proto-Finnic into Early, Middle, and Late Proto-Finnic, suggested by Kallio (2007). Middle Proto-Finnic (MPF) was supposedly the centuries-long phase during which the Finnic branch had already split up from its closest sister branches but before the Finnic languages started to diverge from each other. Thus, MPF was the language spoken by the Finnic speakers during and after their arrival in the Baltic region. By specifically focusing on the borrowings into MPF, we hope to get a more precise picture of the contact landscape and life of the MPF speakers.

In this paper we categorise previously suggested, well-founded Germanic and Baltic loanwords based on the recipient proto-stage with the main focus on MPF. The main source of Germanic loanwords is *Lexikon der älteren germanischen Lehnwörter in den ostseefinnischen Sprachen* (LägLoS), whereas the main source of Baltic borrowings is Junttila (2015). In addition to the borrowings from Baltic and Germanic into MPF, we also collected loanwords of which one cannot certainly say into which Proto-Finnic stage they were borrowed. To attain a more complete view of the contact situation in the eastern Baltic region, we also collected the loanwords from Germanic to Baltic.

We found out that there are ca. 50 Germanic and Baltic borrowings that can specifically be connected to the MPF stage. Interesting examples of Germanic borrowings include *rengas* 'ring' and *ahjo* 'forge', which could perhaps be connected to bronze work that took place in the fortified settlements of Late Bronze Age Estonia. In addition, there are ca. 100 Germanic and 130 Baltic borrowings of which it is impossible to say whether they were borrowed into MPF or already into Early Proto-Finnic. All Baltic borrowings were received during the MPF period at the latest, while there are ca. 220 Germanic words of which one cannot say to which layer they belong to. There are also ca. 20 Germanic loanwords in Baltic. All these were recent borrowings, contemporary with Late Proto-Finnic. By revisiting the pre-existing loanword information, we aim at understanding the world in which the MPF speakers were living while highlighting the importance of loanword studies in the study of the human past.

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References

- Hofstra, Tette (1985), *Ostseefinnisch und Germanisch: frühe Lehnbeziehungen im nördlichen Ostseeraum im Lichte der Forschung seit 1961*. Groningen: Rijksuniversiteit.
- Junttila, Santeri (2012), The prehistoric context of the oldest contacts between Baltic and Finnic languages. In Grünthal, R. & Kallio, P. (eds.), *A Linguistic Map of Prehistoric Northern Europe*. (Mémoires de la Société Finno-Ougrienne 266), 261–296. Helsinki: Suomalais-Ugrilainen Seura.
- Junttila, Santeri (2015), *Tiedon kumuloituminen ja trendit lainasanatutkimuksessa: kantasuomen balttilaislainojen tutkimushistoria*. Helsinki: University of Helsinki.
- Kallio, Petri (2007), Kantasuomen konsonanttihistoriaa. In Ylikoski, J. & Aikio, A. (eds.), *Sámit, sánit, sátnehámit: Riepmočála Pekka Sammallahtii miessemánu 21. beaivve 2007*. (Mémoires de la Société Finno-Ougrienne 253), 229–249. Helsinki: Suomalais-Ugrilainen Seura.
- Kallio, Petri (2015), The stratigraphy of the Germanic loanwords in Finnic. In Askedal, J. O. & Nielsen, H. F. (eds.), *Early Germanic Languages in Contact*. 23–38. Amsterdam/Philadelphia: John Benjamins.
- Koptjevskaja-Tamm, Maria & Wälchli, Bernhard (2001), The Circum-Baltic languages: an areal-typological approach. In Dahl, Ö. & Koptjevskaja-Tamm, M. (eds.), *Circum-Baltic Languages: Volume 2: Grammar and Typology*. 615–750. Amsterdam/Philadelphia: John Benjamins.
- Lang, Valter (2020), *Homo Fennicus: itämerensuomalaisten etnohistoria*. Helsinki: Suomalaisen Kirjallisuuden Seura.
- LägLoS = Kylstra, A. D. & Hahmo, Sirkka-Liisa & Hofstra, Tette & Nikkilä, Osmo (eds.). 1991–2012. *Lexikon der älteren germanischen Lehnwörter in den ostseefinnischen Sprachen I–III*. Amsterdam: Rodopi.
- Metsäranta, Niklas, Milanova, Veronika & Honkola, Terhi (2023), Borrowability of kinship terms in Uralic languages. *Finnisch-Ugrische Forschungen* 68, 141-216.

Enriching English with labile verbs: re-visiting the language contact hypothesis

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Keywords: Argument structure, lability, language contact, Middle English, Old French

This paper examines the rise of lability in Middle English (ME). Labile verbs undergo the causative-anticausative alternation without changing their form (*She broke the window/The window broke*) (Levin 1993, Haspelmath 1993). Our goal is to critically evaluate two opposing views concerning the role Old French (OF) played in this development. The first one is the strong contact hypothesis (Ingham 2020; García García & Ingham 2023) stating that lability was the replication of argument structure properties of French verbs. The second one is the null hypothesis stating that lability (and causative-anticausative alternations in general) is rule-governed and is licensed and constrained by the event structure (ES) of verbs. These rules have always existed in English (e.g. Old English *hefigan* ‘become/make heavy’). The fact that many verbs copied from French meet these conditions is not the cause of the change, but an epiphenomenon of quantitative changes in the lexicon.

Present-Day English (PDE) exhibits the causative-anticausative alternation. In our analysis, following Pinker (1989) and Levin (1993), lability is associated with the ES: the ES of alternating verbs consists of a causing and a resulting event. Since the anticausative construction drops the causing event, it is inhibited if semantically relevant components like Manner or Control are linked to the Causer. Thus *move* can alternate because it lacks cause-related components ([x CAUSE [y MOVE]]), *pour* can alternate because Manner is related to the resulting event ([x CAUSE [y MOVE [by POURING]]]). On the other hand, *push* cannot alternate because Manner is related to the causing event ([x CAUSE [y MOVE [by PUSHING]]]), cf Pinker (1989, 231-2 and 2013, 271-2).

There are reasons for assuming the strong contact hypothesis. From the typological perspective, PDE is the exception among the Germanic languages in exhibiting a much larger number of labile verbs (cf. Haspelmath 1993 and McMillion 2005). From the diachronic perspective, McMillion (2005), van Gelderen (2018) and Ingham (2020) show that lability in Old English was common but much less productive. From the contrastive perspective, the increase occurs in ME when contact with French was intense, and lability is typical of Romance languages (*Elle augmente la température* ‘she raises the temperature’ vs. *La température augmente* ‘the temperature rises’). Still, these facts do not support the conclusion that “Old French provided models for the generalisation of lability across [...] English verb classes” (Ingham 2020, 447). We therefore critically re-examine the contact hypothesis using the combined Penn corpora of Middle English, foremost quantitatively and qualitatively analysing those French-origin verbs that have not become labile in ME even if they showed causative affixes like *en-*, *-isen*, *-ifien* (e.g. ME *enchaunten* ‘enchant’, *baptisen* ‘baptise’, *glorifien* ‘glorify’). We will show that the rules governing lability were well established in the ME grammar, that French verbs copied into ME behaved exactly as predicted by these rules, and that the proportion of French verbs among labile verbs does not justify the assumption of structural copying.

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References

- García García, Luisa, and Richard Ingham. 'Language Contact Effects on Verb Semantic Classes: Labiality in Early English and Old French'. In *Medieval English in a Multilingual Context.*, edited by Sara M. Pons Sanz and Louise Silvester. London: Palgrave, Forthcoming.
- Gelderen, Elly van. *The Diachrony of Verb Meaning. Aspect and Argument Structure*. New York and London: Routledge, 2018.
- Haspelmath, Martin. 'More on the Typology of the Inchoative/Causative Verb Alternations'. In *Causatives and Transitivity*, edited by Bernard Comrie and Maria Polinsky, 87–120. Amsterdam: John Benjamins, 1993.
- Ingham, Richard. 'How Contact with French Drove Patient-Labiality in English'. *Transactions of the Philological Society* 118, no. 3 (2020): 447–67.
- Levin, Beth. *English Verb Classes and Alternations. A Preliminary Investigation*. Chicago: University of Chicago Press, 1993.
- Levin, Beth, and Malka Rappaport Hovav. *Argument Realization*. Research Surveys in Linguistics. Cambridge: Cambridge University Press, 2005.
- McMillion, Allan. 'Labial Verbs in English'. Stockholm, 2006.
- Pinker, Steven. *Learnability and Cognition. The Acquisition of Argument Structure*. Cambridge, Mass.: MIT Press, 1989.
- Pinker, Steven. *Learnability and Cognition. The Acquisition of Argument Structure*. New edition. Cambridge, MA: MIT Press, 2013.

GS Word order

Duality in Word Order in Chinese: An Approach from Microparametric Syntax on Light Verb

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Keywords: Chinese, V-V compounds, OVS order, backward binding, light verbs

Chinese is a language with the basic SVO word order, with potential word order change to OVS, in addition to OSV. The OSV order is possible whenever O is topicalized. The OVS order is limited to a certain type of V-V compounds with a physiological or psychological second verb such as *hē-zuì* 'drink-drunk' and *zhuī-lèi* 'chase-tired', as in (1) and (2) (cf. Li 1995, 1999, and Huang 2010). However, there are at least 70 different V-V compounds that allow this order:

- (1) a. Táotao_i hē-zuì-le (*zìjǐ_i de) jiǔ.
Taotao drink drunk-Asp self DE rice wine
'Taotao drank (his own) rice wine and got drunk.'
- b. Zìjǐ_i de jiǔ hē-zuì-le Táotao_i.
self DE rice wine drink-drunk-Asp Taotao
(Interpretation: identical to (1a))
- (2) a. Táotao_i zhuī-lèi-le zìjǐ_i de péng-yǒu.
Taotao chase-tired-Asp self DE friend
a1. Taotao chased his own friend and Taotao got tired.
a2. Taotao chased his own friend and the friend got tired.
- b. Zìjǐ_i de péng-yǒu zhuī-lèi-le Táotao_i.
self DE friend chase-tired-Asp Taotao
b1. Taotao chased his own friend and Taotao got tired.
b2. *Taotao chased his own friend and the friend got tired.

There are at least two reasons to reject the possibility that the OVS order in (1b) and (2b) is derived by the topicalization of the object: (i) topicalization does not require verb raising across the subject, and (ii) topicalization would not change the range of logical interpretations available for the pre-topicalization structure in terms of anaphor binding and theta-identification between arguments. Thus, (1a) does not allow the forward binding of *zìjǐ* 'self', which is a subject-oriented anaphor, though (1b) allows the backward binding of *zìjǐ*. (2a) allows the interpretation that Taotao chased his own friend and the friend got tired, which is impossible in (2b). Moreover, the SVO order in (1a) but not the OVS order in (1b) allows an instrumental adverb that modifies the tool with which the actor do the action or a locative adverb that expresses the place where the event takes place.

We will explain the availability of backward binding and the peculiar semantic limitations on the OVS order in Chinese by slightly modifying Folli and Harley’s (2007) proposal about the dichotomy of light verbs into v(DO) and v(CAUSE) and assuming that the (a) and (b) sentences of (1) and (2) are derived from a common underlying structure when the two types of light verb attract different types of internal argument to their specifier (cf. Takano (2011)), with the verb raising to the Asp head, as in (3a) and (3b):

- (3) a. [_{VP} Táotao [_V v(DO) [_{AspP} V(hē-zuì)+Asp [_{VP} Táotao [_V V(hē-zuì) jiǔ]]]]
 ↑ _____ ↓
 b. [_{VP} Jiǔ [_V v(CAUSE) [_{AspP} V(hē-zuì)+Asp [_{VP} Táotao [_V V(hē-zuì) jiǔ]]]]
 ↑ _____ ↓

The backward binding will be explained for the same reason as that in psychological verbs in English, as in (4):

- (4) Pictures of himself_i worry John_i. (Belletti and Rizzi 1988:317)

The (im)possibility of adverbial modification is attributed to the difference in the type of light verb used in each construction.

References:

- Belletti, Adriana and Luigi Rizzi. 1988. “Psych verbs and θ -theory,” *Natural Language and Linguistic Theory* 6, 291–352.
- Folli, Raffaella and Heidi Harley. 2007. “Causation, obligation, and argument structure: On the nature of little v,” *Linguistic Inquiry* 38, 197–238.
- Huang, C.-T. James. 2010. “Resultatives and unaccusatives: A parametric view,” in C.-T. James Huang (ed.). 2010. *Between Syntax and Semantics*, New York/London: Routledge, 377–453.
- Li, Yafei. 1995. “The thematic hierarchy and causativity,” *Natural Language and Linguistic Theory* 13, 255–282.
- Li, Yafei. 1999. “Cross-componential causativity,” *Natural Language and Linguistic Theory* 17, 445–497.
- Takano, Yuji. 2011. “Double complement unaccusatives in Japanese: puzzles and implications,” *Journal of East Asian Linguistics* 20, 229–254.

A functional perspective on word order variation in noun phrases: A case study of an Australian language

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Australian languages are well-known for the variability found – to a larger or lesser extent – within their noun phrases (e.g. Blake 2001, Nordlinger 2014, Louagie 2023). While we have a good idea of the types of variability found, including word order variation and discontinuity, their patterns of use are overall less well-studied (with some notable exceptions). This paper investigates word order variation in noun phrases in Jaminjung-Ngaliwurru (Mirndi), and discusses some of the analytical and methodological challenges encountered.

In order to map the different possibilities and explore possible formal, functional and information structural correlates, we analysed about 550 multi-word noun phrases, extracted manually from a substantial subset of the Jaminjung-Ngaliwurru corpus. Word order variation is extensive: with the exception of the ignorative *nganthan* ‘what, which’, all types of modifiers have flexible order relative to the head noun and to each other. Some modifiers show clear frequency differences between orders (e.g. demonstrative-noun in 70% of the instances), others do not (e.g. possessive pronouns).

First, we investigate whether positions in the NP can be mapped to functions in a broad semiotically-based functional approach, which has been employed to describe word order in other Australian languages (e.g. McGregor 1990 on Gooniyandi). One difficulty we encountered was the elusiveness of clear criteria for said functional categories. For example, gradability as a parameter to distinguish qualifying from ‘(sub-)classifying’ modifiers (Davidse & Breban 2019) is often hard to apply on the basis of an all-in-all limited dataset and without immediate access to speaker intuitions. Furthermore, while we for example identified classifying modifiers in a number of instances, they are not tied to a specific position in the noun phrase (compare (1a-b)), and hence the functional category does not sufficiently explain positional variation.

- (1) a. *Nganthan* *thawayá* *bunthuyu* ***buj-mawu*** ***mangarra?***
what eating 3UA-be.PRS bush-HABIT plant_food
‘What are they (two) eating, bush food?’
- b. ... ***mangarra*** ***buj-mawu*** *garrb-mayan*.
plant_food bush-HABIT gather-ITER
‘[We just kept on walking,] picking up bush food.’

Second, a number of other parameters are explored, both qualitatively and quantitatively. Different factors appear to underly statistical tendencies for the positioning of different modifier types: discourse status (topicality/givenness) of the referent for demonstrative order, person of the possessor for possessive pronoun order, and information structure for classifying (in the sense above), qualifying and quantifying modifiers. For instance, (1b) presents the pragmatically neutral order, used in a context where bush food is the expected subtype of food (traditional lifestyle), whereas in (1a) the modifier is contrastive, in a context where bush food is unexpected (a task describing unfamiliar pictures to an outsider).

None of the factors just mentioned are, however, fully sufficient in predicting the position of noun phrase constituents, and since the datasets are too small to meaningfully carry out multivariate

statistical analyses, parameters can only be studied one by one. We conclude that either these factors are responsible for mere tendencies (rather than absolute rules) in what is essentially free variation, or additional factors that have not yet been considered also play a role.

Abbreviations: ITER – iterative ; HABIT – habitat; PRS – present ; UA – unit augmented

References

- Blake, Barry. 2001. The noun phrase in Australian languages. In Jane Simpson, David Nash, Peter Austin & Barry Alpher (eds.), *Forty years on: Ken Hale and Australian languages*, 415–425. Canberra: Pacific Linguistics.
- Davidse, Kristin & Tine Breban. 2019. A cognitive-functional approach to the order of adjectives in the English noun phrase. *Linguistics* 57(2). 327–371.
- Louagie, Dana. 2023. Multiple construction types for nominal expressions in Australian languages: Towards a typology. *Studies in Language* 47(3). 683–742.
- McGregor, William. 1990. *A functional grammar of Gooniyandi*. Amsterdam: John Benjamins.
- Nordlinger, Rachel. 2014. Constituency and grammatical relations. In Harold Koch & Rachel Nordlinger (eds.), *The languages and linguistics of Australia: A comprehensive guide*, 215–262. Berlin: Mouton de Gruyter.

Word Order and Areal Patterns in South Asian Numerals

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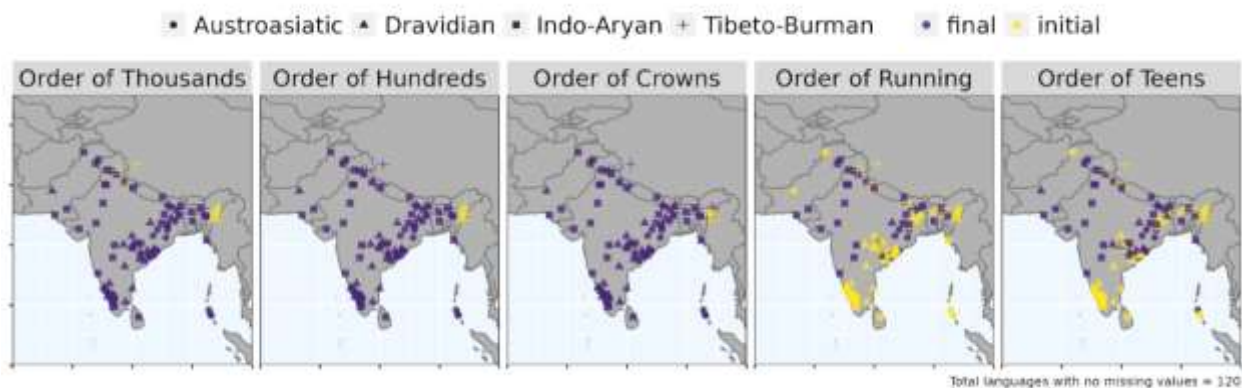
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Keywords: Numeral systems, linguistic typology, base order, word order, language contact

The current linguistic diversity observed in South Asia has its origin in its historical mix of cultures, as well as its diversified topography. This diversity can be especially observed in numeral systems, which play an important role in cognitive and cultural history. The numeral systems of this area had not been documented nor analyzed from a typological perspective to date. We provide the first typological overview of numeral systems from 139 languages in South Asia (mostly Austroasiatic, Dravidian, Indo-Aryan, and Tibeto-Burman), which can be used to infer weights and depths of contact and borrowing between and within language families.

In order to define the diversity and similarity in the given languages as well as for typologizing this feature, the following parameters have been chosen: numeral base, word order of the complex numerals, and presence/absence of borrowing, including its source language when available. In this study, both primary and secondary data have been gathered. Using scheduled questionnaire and interview methods, primary data for 62 of the 139 languages have been collected through our own fieldwork.

In this presentation, we provide a framework for analyzing numeral systems by looking at word-orders of teens (11-19), crowns (10, 20, ..., 90), running numerals (21-29, 31-39, ..., 91-99), hundreds (100, 200, ..., 900), and thousands (1000, 2000, ..., 9000). Quantitative analyses based on decision trees and phylogenetic regressions suggest that, language families can be predicted by using order of thousands and order of running numerals, and while borrowing occurred at various levels in different language families, there is still a phylogenetic signal for the structure of numeral systems, respectively. We also show that the crowns, hundreds, and thousands are more likely to be borrowed first, while teens and running numerals are borrowed the latest. Our study also has a societal impact: We demonstrate that the diversity of numeral systems is disappearing quickly and that it is of the utmost importance to document and preserve it.



Word order of the constituents in the formation of complex numerals. Shapes indicate language families, and colors indicate the constituent order.

What drives transitive word order?

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Keywords: agent-first, word order preferences, corpus-based typology, conceptual prominence, computational modeling

The relative order of argument NPs in transitive sentences tends to follow an agent-first principle across languages (Dryer, 2013; Greenberg, 1963; Napoli & Sutton-Spence, 2014; Riesberg et al., 2019). A candidate source for this tendency is a preference for agents during sentence comprehension (Alday et al., 2014; Bornkessel-Schlesewsky & Schlewsky, 2009) and event apprehension (Cohn & Paczynski, 2013; Dobel et al., 2007), independent of a language's typology and usage patterns (Bickel et al., 2015; Egurtzegi et al., 2022; Erdocia et al., 2009; Huber et al., 2023; Isasi-Isasmendi et al., 2023; Nordlinger et al., 2022; Sauppe et al., 2021, 2023), and reflecting a greater prominence of and interest in agents than patients, potentially rooted in primate cognition (Wilson et al., 2022). An unresolved question, however, is the extent to which this effect holds in comparison to other features that are known to impact the choice of initial NPs, in particular humanness (Meir et al., 2017; Nordlinger et al., 2022; Tomlin, 1986), givenness (Prince, 1981; Tal et al., 2022), and NP complexity (Bock, 1982; Hawkins, 1994; Jing et al., 2021; MacDonald, 2013).

We report findings from an investigation of argument orders in transitive clauses in two cross-linguistic corpora; Multi-CAST (Haig & Schnell, 2022) and Universal Dependencies (UD; Nivre et al., 2020), representing production data from 140 corpora from 77 diverse languages. While Multi-CAST is noticeably smaller (16 languages), it features highly uniform content (narratives only) and contains animacy and reference annotations that facilitate broader investigations of word order preferences.

Firstly, our descriptive findings support a universal bias towards agents preceding patients (taking 'subject' and 'object' as proxies in UD; agentivity), humans preceding nonhumans (humanness), given discourse participants preceding new participants (givenness), shorter forms preceding longer forms (NP complexity), pronouns preceding NPs (pronominality), and more topically important preceding less topically important arguments (topicality).

Secondly, given a high collinearity of these word order principles, we deployed a computational model to assess the relative importance of each principle using the Gini importance coefficient (Breiman, 1984). For each corpus, we trained a random forest classification model that takes as input the argument properties (e.g., agent, human, and pronoun) and predicts whether the argument with a given combination of properties occurs in the first or last relative position. The models achieve a high prediction accuracy (Multi-CAST: $M = 81.9$, $SD = 18.0$, UD: $M = 90.3$, $SD = 8.9$), validating them. We find that agentivity is in most languages the strongest predictor of argument position, followed by topical importance, and the argument length. Givenness and pronominality were found to be least important.

Our findings suggest that the agent preference is indeed a critical factor in speakers' production choices, above and beyond argument salience and prominence in terms of humanness, givenness and NP complexity.

References

- Alday, P. M., Schlesewsky, M., & Bornkessel-Schlesewsky, I. (2014). Towards a computational model of actor-based language comprehension. *Neuroinformatics*, *12*, 143–179. <https://doi.org/10.1007/s12021-013-9198-x>
- Bickel, B., Witzlack-Makarevich, A., Choudhary, K. K., Schlesewsky, M., & Bornkessel-Schlesewsky, I. (2015). The neurophysiology of language processing shapes the evolution of grammar: Evidence from case marking. *PLoS One*, *10*(8), e0132819. <https://doi.org/10.1371/journal.pone.0132819>
- Bock, J. K. (1982). Toward a cognitive psychology of syntax: Information processing contributions to sentence formulation. *Psychological Review*, *89*(1), 1–47. <https://doi.org/10.1037/0033-295X>
- Bornkessel-Schlesewsky, I., & Schlesewsky, M. (2009). The role of prominence information in the real-time comprehension of transitive constructions: A cross-linguistic approach. *Language and Linguistics Compass*, *3*(1), 19–58. <https://doi.org/10.1111/j.1749-818X.2008.00099.x>
- Breiman, L. (1984). *Classification and regression trees*. Routledge. <https://doi.org/10.1201/9781315139470>
- Cohn, N., & Paczynski, M. (2013). Prediction, events, and the advantage of agents: The processing of semantic roles in visual narrative. *Cognitive Psychology*, *67*(3), 73–97. <https://doi.org/10.1016/j.cogpsych.2013.07.002>
- Dobel, C. G., & Zwitserlood, P. (2007). Describing scenes hardly seen. *Acta Psychologica*, *125*(2), 129–143. <https://doi.org/10.1016/j.actpsy.2006.07.004>
- Dryer, M. S. (2013). Order of subject, object and verb. In M. S. Dryer, & M. Haspelmath, *The world atlas of language structures online (v2020.3)*. Zenodo. <https://doi.org/10.5281/zenodo.7385533>
- Egurtzegi, A. B., Bornkessel-Schlesewsky, I., Laka, I., Meyer, M., Bickel, B., & Sauppe, S. (2022). Cross-linguistic differences in case marking shape neural power dynamics and gaze behavior during sentence planning. *Brain and Language*, *230*, 105127. <https://doi.org/10.1016/j.bandl.2022.105127>
- Erdocia, K., Laka, I., Mestres-Missé, A., & Rodriguez-Fornells, A. (2009). Syntactic complexity and ambiguity resolution in a free word order language: Behavioral and electrophysiological evidences from Basque. *Brain and Language*, *109*(1), 1–17. <https://doi.org/10.1016/j.bandl.2008.12.003>
- Greenberg, J. H. (1963). Some universals of grammar with particular reference to the order of meaningful elements. In J. H. Greenberg, *Universals of language* (pp. 73–113). MIT Press.
- Haig, G., & Schnell, S. (2022). *Multi-CAST: Multilingual corpus of annotated spoken texts [Version 2211]*. University of Bamberg. <https://multicast.aspra.uni-bamberg.de/>
- Hawkins, J. A. (1994). *A performance theory of order and constituency*. Cambridge University Press. <https://doi.org/10.1017/CBO9780511554285>
- Huber, E., Sauppe, S., Isasi-Isasmendi, A., Bornkessel-Schlesewsky, I., Merlo, P., & Bickel, B. (2023). Surprisal from language models can predict ERPs in processing predicate-argument structures only if enriched by an agent preference principle. *Neurobiology of Language*, 1–34. https://doi.org/10.1162/nol_a_00121
- Isasi-Isasmendi, A., Andrews, C., Flecken, M., Laka, I., Daum, M. M., Meyer, M., . . . Sauppe, S. (2023). The agent preference in visual event apprehension. *Open Mind: Discoveries in Cognitive Science*, 240–282. https://doi.org/10.1162/opmi_a_00083
- Jing, Y., Widmer, P., & Bickel, B. (2021). Word order variation is partially constrained by syntactic complexity. *Cognitive Science*, *45*(11), e13056. <https://doi.org/10.1111/cogs.13056>
- MacDonald, M. C. (2013). How language production shapes language form and comprehension. *Frontiers in Psychology*, *4*, 226. <https://doi.org/10.3389/fpsyg.2013.00226>
- Meir, I., Aronoff, M., Börstell, C., Hwang, S.-O., Ilkbasaran, D., Kastner, I., . . . Sandler, W. (2017). The effect of being human and the basis of grammatical word order: Insights from novel

- communication systems and young sign languages. *Cognition*, 158, 189–207. <https://doi.org/10.1016/j.cognition.2016.10.011>
- Napoli, D. J., & Sutton-Spence, R. (2014). Order of the major constituents in sign languages: Implications for all language. *Frontiers in Psychology*, 5, 376. <https://doi.org/10.3389/fpsyg.2014.00376>
- Nivre, J., de Marneffe, M.-C., Ginter, F., Hajic, J., Manning, C. D., Pyysalo, S., . . . Zeman, D. (2020). Universal Dependencies v2: An evergrowing multilingual treebank collection. In N. Calzolari, F. Béchet, P. Blache, K. Choukri, C. Cieri, T. Declerck, . . . S. Piperidis (Ed.), *Proceedings of the 12th Language Resources and Evaluation Conference (LREC'20)* (pp. 4034–4043). European Language Resources Association. <https://aclanthology.org/2020.lrec-1.497>
- Nordlinger, R., Rodriguez, G. G., & Kidd, E. (2022). Sentence planning and production in Murrinhpatha, an Australian 'free word order' language. *Language*, 98(2), 187–220. <https://doi.org/10.1353/lan.2022.0008>
- Prince, E. F. (1981). Toward a taxonomy of given-new information. In P. Cole, *Radical Pragmatics* (pp. 223–256). Academic Press.
- Riesberg, S., Malcher, K., & Himmelmann, N. P. (2019). How universal is agent-first? Evidence from symmetrical voice languages. *Language*, 95(3), 523–561. <https://doi.org/10.1353/lan.2019.0055>
- Sauppe, S., Choudhary, K. K., Giroud, N., Blasi, D. E., Norcliffe, E., Bhattamishra, S., . . . Bickel, B. (2021). Neural signatures of syntactic variation in speech planning. *PLoS Biology*, 19(1), e3001038. <https://doi.org/10.1371/journal.pbio.3001038>
- Sauppe, S., Næss, Å., Roversi, G., Meyer, M., Bornkessel-Schlesewsky, I., & Bickel, B. (2023). An agent-first preference in a patient-first language during sentence comprehension. *Cognitive Science*, 47(9), e13340. <https://doi.org/10.1111/cogs.13340>
- Tal, S., Smith, K., Culbertson, J., Grossman, E., & Arnon, I. (2022). The impact of information structure on the emergence of differential object marking: An experimental study. *Cognitive Science*, 46(3), e13119. <https://doi.org/10.1111/cogs.13119>
- Tomlin, R. S. (1986). *Basic Word Order: Functional Principles*. Routledge.
- Wilson, V. A., Zuberbühler, K., & Bickel, B. (2022). The evolutionary origins of syntax: Event cognition in nonhuman primates. *Science Advances*, 8(25), eabn8464. <https://doi.org/10.1126/sciadv.abn8464>

GS Historical linguistics

II

A quantitative approach to the reconstruction of the PIE quality modifier construction

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Keywords: Proto-Indo-European, adjectival typology, quantitative approach, token-based typology

Scholars usually think PIE had the same parts of speech of Latin: nouns, verbs and adjectives. However, PIE adjectives show the same endings as nouns, comparative morphology is lacking in Hittite, Tocharian, Armenian and Albanian, and most PIE adjectives show the “recent” inflection in **-e/o-*. Thus, some scholars argued that the adjective is a recent category in PIE (Wackernagel 2009: 466, Lehmann 1974: 208, Comrie 1997: 101). However, this idea was further developed into two opposite directions. Some claimed that, in an early phase, quality concepts were merged with nouns in the lexicon (Balles 2006, 2009) and the PIE adjectives arose from appositional nouns added to the feminine motion suffix (Brugmann 1888: 420; Fritz & Meier-Brügger 2020: 225). Others claimed that, originally, quality concepts – typically coded by the so-called Caland roots - were merged with intransitive verbs in PIE or Pre-PIE (Bozzone 2016): thus, adjectival endings could have arisen from nominal endings added to the feminine motion, but the adjective as a class of primary lexemes should have arisen from participles or participial-like nominalizations built on verbal roots of quality or near-quality meaning (Alfieri 2016, 2021).

The aim of the talk is to provide the empirical ground needed for discussing the problem above in a typologically-consistent, text-based, quantitative perspective. In practice, the adjective is defined as the most typical quality modifier construction (Croft 2001: 67, Hengeveld 1992) and this definition is applied to a corpus of texts from 4 ancient IE languages, namely: 52 hymns of Rig-Veda, 2 books by Homer, Sallust’s *De coniuratione Catilinae* and an equivalent corpus of Hittite texts. All quality modifier constructions in each corpus are gathered (700-1000 in each case), their morphemic structure is analysed and evaluated quantitatively, distinguishing type and token frequency (see Levshina 2019, 2021).

Two different methods of parsing can be used, a lexicalist, word-based approach (e.g., Blevins 2016), or a morpheme-based approach (e.g., Dressler et al. 1987). If the word-based approach is used, only three adjectival constructions are found in each language, namely adjectives in traditional sense (e.g., *black*), participles (e.g., *shining*) and compounds (e.g., *red-haired*):

	Classical Latin		Homeric Greek		Hittite		RV Sanskrit	
	Token	Type	Token	Type	Token	Type	Token	Type
[adjective]-Agr	88.3%	77.9%	60.4%	53.4%	85.2%	76.1%	48.5%	30.8%
[participle]-Agr	5.2%	10.2%	13.0%	18.5%	14.8%	23.9%	15.0%	33.7%
[...]-[...]Agr	6.5%	11.9%	26.6%	28.1%	0%	0%	36.5%	35.5%
Total	100%	100%	100%	100%	100%	100%	100%	100%

On the other hand, if the morpheme-based approach is used, adjectives are divided into simple adjectives (e.g., *black*), deverbal adjectives (e.g., *lovable*), denominative adjectives (e.g., *childish*) and prepositional adjectives (e.g., *upper*), while compounds are divided into proper compounds (e.g., *red-haired*) and prefixed adjectives (e.g., *un-fair*):

	Classical Latin		Homeric Greek		Hittite		RV Sanskrit	
	Token	Type	Token	Type	Token	Type	Token	Type
[adjective]-Agr	79.7%	62.8%	48.8%	32.3%	65.9%	48.5%	9.9%	5.5%
[verb-NM]-Agr	7.3%	12.8%	12.5%	19.0%	25.5%	42.0%	40.1%	32.5%
[noun-ADJ]-Agr	6.1%	11.9%	10.3%	11.8%	0.8%	5.3%	13.0%	12.4%
[preposition]-Agr	0.5%	0.4%	0.3%	0.3%	7.8%	3.8%	1.5%	1.6%
PRE-[...]N-Agr	6.5%	11.9%	11.5%	14.1%	0%	0%	14.3%	17.7%
[...]N-[...]N-Agr	0%	0%	16.6%	22.1%	0%	0%	21.2%	30.3%
Total	100%	100%	100%	100%	100%	100%	100%	100%

A discussion on the differences between the two parsing methods and their consequences on the reconstruction of the PIE quality modifier construction will close the talk.

References

- Alfieri, Luca. 2021. Parts of speech comparative concepts and Indo-European linguistics. Alfieri L., Arcodia G. & Ramat P. (eds.), *Linguistic categories, language description and linguistic typology*, 313-366. Amsterdam-Philadelphia: John Benjamins.
- , 2016. The typological definition of the (apparently historical) notion of root. *Archivio Glottologico Italiano* 102(1): 129-169.
- Balles, Irene. 2009. Zu den i-stämmigen Adjektiven des Lateinischen. Lühr R. & Ziegler S. (eds.): *Protolanguage and Prehistory*. Akten der XII. Fachtagung der Indogermanischen Gesellschaft, Krakau, 11.-15. Oktober 2004. Wiesbaden 2009.
- , 2006. *Die altindische Cvi-Konstruktion: Form, Funktion, Ursprung*. Bremen: Hempen.
- Blevins, John P. 2016. *Word and paradigm morphology*. Oxford: OUP.
- Bozzone, Chiara. 2016. The Origin of the Caland System and the Typology of Adjectives. *Indo-European Linguistics* 4: 15-52.
- Brugmann, Karl & Delbrück, Bertold. 1887-1916. *Grundriss der vergleichenden Grammatik der indogermanischen Sprachen*. Vol. II.1: Brugmann K. 1888 [1906²]. *Lehre von den Wortformen und ihrem Gebrauch. Das Nomen*. Strassburg: Trübner.
- Comrie, Bernard. 1997. La famiglia linguistica indoeuropea: prospettive genetiche e tipologiche. A. Giacalone Ramat & P. Ramat (eds.), *Le lingue indoeuropee*, 95-122. Bologna: Il Mulino.
- Croft, William. 2001. *Radical Construction Grammar*. Oxford: Oxford University Press.
- Dressler, Wolfgang U. & Mayerthaler, Willi & Panagl, Oswald & Wurzel, Wolfgang U. (eds.). 1987. *Leitmotivs in Natural Morphology*. Amsterdam-Philadelphia: John Benjamins.
- Fritz, Matthias & Meier-Brügger, Michael. 2021¹⁰. *Indogermanische Sprachwissenschaft*. Berlin-Boston: Mouton De Gruyter.
- Hengeveld, Kees. 1992. *Non-verbal Predication: Theory, Typology, Diachrony*. Berlin: Mouton.
- Lehmann, Winfried P. 1974. *Proto-Indo-European Syntax*. Austin: University of Texas Press.
- Levshina, Natalia. 2021. Corpus-based typology: applications, challenges and some solutions. *Linguistic Typology* 51: 611-643.
- , 2019. Token-based typology and word-order entropy: A study based on Universal Dependencies. *Linguistic Typology* 23(3): 533-572.
- Wackernagel, Jakob. 2009. *Lectures on Syntax: with Special Reference to Greek, Latin, and Germanic*. Translated and edited with notes and bibliography by David Langslow. Oxford: Oxford University

Press [Id. 1920-1924¹. *Vorlesungen über Syntax mit besonderer Berücksichtigung von Griechisch, Lateinisch und Deutsch*. 2 vols. Basel: Birkhäuser].

SAP object indexing and pronoun occurrence in two Trans-Himalayan languages

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Keywords: speech-act participants, person, indexing, object, pronoun

Referents can be tracked through indexing on the verb, as well as through nominals in the clause, while even without any indexing, zero anaphora may be preferred if the reference is contextually recoverable. The question then arises when and why referents and their roles are expressed through nominals when disambiguation is not necessary, in particular when there is indexing that specifies the referent.

The (non-)occurrence of nominals for 3rd person subjects has been studied from many different angles. Regarding speech act participants (SAP's), we know that overt pronouns may be linked to particular discourse constructions (e.g. Lee 2010). But as we turn to SAP objects, little is known, clearly in part because they are rare at an estimated rate of about 10% of all objects of transitive clauses (Haig 2018). In two studies of Bislama, Meyerhoff (2000; 2002) identifies a link between incipient, transparent 3-SUBJ indexing and a tendency for zero anaphora in 3rd person subject nominals, whereas in objects, older and opaque 3rd person indexation correlates with an overt use of nominals, while SAP objects tend to display zero anaphora.

In order to better understand the relationship between indexing and nominal expression in SAP objects, I compare two Trans-Himalayan (TH) languages with different systems of person indexation. Monsang (South-Central TH) exhibits a morphologically rich person indexation system with inverse marking in 2→1 and 3→SAP – in the latter configuration leaving SAP object reference ambiguous between 1SG, 1PL.EXCL, INCL, 2SG, 2PL. In contrast, Karbi (unclassified TH) does not have a person indexation system *per se* but we find an innovative construction that broadly indexes SAP objects, but nothing else, on the verb. Thus, in the 3→SAP scenarios, both languages index SAP objects on the verb but in an ambiguous fashion that does not specify which SAP the object is. While this is the same, the indexation systems are otherwise strikingly different: complex in Monsang, simple/non-existent in Karbi. Due to the morphological context and in comparative perspective (cf. DeLancey 2018), the ambiguity in 3→SAP in Monsang could be interpreted as a sociopragmatic strategy of reference avoidance where the inverse construction replaced historically transparent forms. In contrast, the ambiguous SAP object index in Karbi is added to the otherwise bare verb. We can thus assume that in Karbi, the involvement of SAP objects is highlighted, not obscured.

Examining these morphological interpretations vis-à-vis pronoun occurrence suggests that indeed, SAP objects are more commonly profiled in Karbi compared to Monsang. In Karbi, a third of all SAP object clauses contain an object pronoun (n=87), while in Monsang it is just a tenth (n=58). This is additionally interesting considering that the Monsang corpus is both more dialogic in nature as well as slightly larger (14,000 words) than the Karbi corpus (12,500 words).

The results thus contribute to an understudied phenomenon and suggest that there may be a synchronic relationship between the morphological structure of person indexing and the rate of occurrence of independent pronouns.

References

- DeLancey, Scott. 2018. "Deictic and Sociopragmatic Effects in Tibeto-Burman SAP Indexation." In *Typological Hierarchies in Synchrony and Diachrony*, edited by Sonia Cristofaro and Fernando Zúñiga, 343–76. Amsterdam/Philadelphia.
- Haig, Geoffrey. 2018. "The Grammaticalization of Object Pronouns: Why Differential Object Indexing Is an Attractor State." *Linguistics* 56 (4): 781–818.
- Lee, Jee Won. 2010. "Systematic Repetition of the First Person Singular Pronoun Wo in Mandarin Conversation: Negotiation of Conflicting Stance in Interaction." *Chinese Language and Discourse*. John Benjamins.
- Meyerhoff, Miriam. 2000. "The Emergence of Creole Subject–Verb Agreement and the Licensing of Null Subjects." *Language Variation and Change* 12 (2): 203–30.
- Meyerhoff, Miriam. 2002. "Formal and Cultural Constraints on Optional Objects in Bislama." *Language Variation and Change* 14 (3): 323–46.

How did the relations of space and time evolve in discourse? Spatio-temporal systems in Paston letters

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Keywords: spatio-temporal system, Paston letters, proximal and distal perspectives, discourse, historical pragmatics and discourse analysis

The purpose of this paper is to carry out a discourse-pragmatic analysis of the spatio-temporal systems (Nakayasu 2018) in Paston letters along the lines of historical pragmatics and discourse analysis (Taavitsainen, and Jucker 2015). The corpus of this research is taken from *Paston letters and papers of the fifteenth century* (Davis 2004[1971]), and letters by both men and women are selected for analysis.

Language is equipped with spatio-temporal systems by which the speakers/writers judge how distant the situations they wish to express are from their domain. Such relationships are embodied by spatio-temporal elements such as pronouns, demonstratives, adverbs, tense forms and modals, with a proximal (close) and distal (distant) distinction. These elements can be related to each other to take either a proximal or a distal perspective not only in the spatial and the temporal domains, but also in the integrated spatio-temporal domain. The speakers/writers may continue to take the same perspective, or alternate different perspectives, in discourse.

This research integrates both qualitative and quantitative analyses of how the spatio-temporal systems in Paston letters evolve in discourse, taking into consideration sociolinguistic factors such as gender. A preliminary analysis of the corpus reveals that proximal perspectives are more likely to be taken in Paston letters, and that women writers have stronger tendency toward distal than men. This could reflect the power relationship between men and women in late medieval England, that is, men are more assertive and write about themselves more frequently, while women are more tentative and likely to report what happens in their vicinity.

This paper then addresses the following questions: 1) How does the perspective change as the discourse progresses? 2) What factors are relevant to this change in discourse? and 3) How diverse are these factors among writers and recipients? To provide answers to these questions, this paper conducts qualitative and quantitative analyses of these factors: 1) elements structuring discourse (e.g. metadiscourse), 2) elements promoting a proximal or a distal perspective (e.g. address terms), 3) elements triggering alternations of these perspectives (e.g. discourse markers), and 4) factors facilitating such alternations in either the spatial, the temporal or the integrated spatio-temporal domain (e.g. contrast between two worlds). The analysis shows, for example, that the writers employ address terms to maintain the perspective proximal, considering their social role and the relationship with the recipients. Elements such as *it is seyde here/it is seyde ther*, which are used in reporting, are demonstrated to trigger the perspective change from distal to proximal, or vice versa. It is also observed that the contrast between two worlds such as those between the world of the alive (proximal) and the world of the dead (distal) may cause perspective alternations in the integrated spatio-temporal domain. However, such alternations between perspectives in letters are not so dramatic nor marked as in fictions such as Chaucer's *Canterbury tales*.

Finally, this research uncovers how the letter writers interacted with the spatio-temporal

systems in discourse, offering a new perspective to historical pragmatics and discourse analysis.

References

- Davis, Norman (ed.) (2004[1971]), *Paston letters and papers of the fifteenth century*, part I, Oxford: The Early English Text Society/Oxford University Press.
- Nakayasu, Minako (2018), Spatio-temporal systems in Chaucer, in Peter Petré, Hubert Cuyckens, and Frauke D'Hoedt (eds), (2018), *Sociocultural dimensions of lexis and text in the history of English*, Amsterdam / Philadelphia: John Benjamins, 125-150.
- Taavitsainen, Irma, and Andreas H. Jucker (2015), Twenty years of historical pragmatics: Origins, developments and changing thought styles, *Journal of Historical Pragmatics* 16(1), 1-24.

A contrastive analysis of Hebrew *niphal* and Greek aorist in $-(\theta)\eta-$ in the Pentateuchus

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This paper addresses the question of the relationship between Hebrew *niphal* and Greek aorist in $-(\theta)\eta-$ in the Septuagint's Pentateuchus by providing a comprehensive account of their range of functions. Hebrew *niphal* is traditionally associated with passive or reflexive meanings (Joüon & Muraoka 1996), although it displays other functions (van Wolde 2019). Greek aorist in $-(\theta)\eta-$ shows a progressive merger between passive and middle voice (Prévoit 1935, Horrocks 2010, Voitila 2016). Our study investigates the distribution of the *niphal* and the aorist in $-(\theta)\eta-$ in the Pentateuchus and clarifies the principles underlying their functional organization.

A contrastive analysis was conducted through the creation of a complete *corpus* of the *niphal*'s occurrences in the Pentateuchus and the corresponding Greek forms. The Pentateuchus was taken as the starting point for our research, as it is the primitive nucleus of the Septuagint (Conybeare & Stock 1988). The correspondences between categories such as unaccusativity (cf. Levin & Rappaport 1995), passive (cf. Haspelmath 1990), tense, and voice were considered, as these are crucial to the understanding of the functions and distribution of both the *niphal* and the aorist in $-(\theta)\eta-$ (cf. Joüon & Muraoka 1996, Magni 2008, García Ramón 2014, Romagno 2014).

Our results show that in 30.76% of cases, the *niphal* corresponds to the prototypical function of the ancient form of aorist in $-\eta-$, that is the expression of anticausative values (Romagno 2014): e.g., Gen.7:11, נִבְרָקָה “broke up” – ἐππάγησαν “idem”. The *niphal* also has passive (25.82%) and reflexive (8.79%) meanings: in 50% of these cases, verb semantics includes agent-oriented components, which matches the results from crosslinguistic investigations (Haspelmath 1993, Kulikov 1998). Moreover, the *niphal* is used with translational motion verbs (which represent one of the prototypes of unaccusativity: 10.43%, e.g., Ex.40:36), reciprocals (2.74%: e.g., Gen.32:25), and emotion and cognition verbs (11.5%: e.g., Gen.24:67). In these cases, the aorist in $-(\theta)\eta-$ is scarcely used: most of the corresponding Greek forms are active aorists (22%), futures (42%), and perfects (11%).

This study shows that: 1) the various functions displayed by the *niphal* and the corresponding aorist in $-(\theta)\eta-$ in the Pentateuchus can be accounted for in a coherent model; 2) both categories frequently encode unaccusativity and, specifically, anticausative values, thus providing new evidence on their range of functions; 3) a common principle underlies anticausative, passive, and reflexive *niphal*/aorist in $-(\theta)\eta-$; this principle is related to specific semantic properties of the verb lexeme; 4) differently from traditional Hebrew grammars, which attribute only passive or reflexive meaning to the *niphal*, but consistently with results from recent studies (van Wolde 2019), the *niphal* in the Pentateuchus is used as a middle voice marker, covering a range of functions that centered around the expression of unaccusativity and includes the encoding of translational motion and reciprocal events, as well as of emotion and cognition. In conclusion, the analysis proposed here significantly contributes to the understanding of both the relationship between anticausative, passive, and reflexive aorists in the Hellenistic Greek and the complex architecture of functions of Hebrew *niphal*.

References

- Conybeare, Frederick Cornwallis & Stock, St. George (1988), *Grammar of Septuagint Greek: With Selected Readings from the Septuagint According to the Text of Swete*, USA: Hendrickson Pub.
- García Ramón, José Luis (2014), From aktionsart to aspect and voice: on the morphosyntax of the Greek aorists with -η- and -θη-, in: Bartolotta, A. (ed.), *The Greek Verb. Morphology, Syntax and Semantics. Proceedings of the 8th International meeting on Greek Linguistics (Agrigento 1-3 October 2009)*, Louvain-la-Neuve/Walpole (MA): Peeters, 149-182.
- Haspelmath, Martin (1990), The grammaticization of Passive Morphology, *Studies in Language* 14, 25-72.
- Haspelmath, Martin (1993), More on the typology of inchoative/causative verb alternations, in Comrie, B. & Polinsky, M. (eds.), *Causatives and Transitivity*, Amsterdam/Philadelphia, Benjamins, 87-120.
- Horrocks, George (2010), *Greek: A history of the language and its speakers*, Malden: Wiley-Blackwell.
- Jouön, Paul & Muraoka, Takamitsu (1996), *A grammar of Biblical Hebrew*, Roma: Editrice Pontificio Istituto Biblico.
- Kulikov, Leonid (1998), Passive, anticausative and classification of verbs: the case of Vedic, in Kulikov, L. & Vater, H, (eds.), *Typology of verbal categories: papers presented to Vladimir Nedjalkov on the occasion of his 70th birthday*, Tübingen: Niemeyer, 138-153.
- Levin, Beth & Rappaport Hovav, Malka (1995), *Unaccusativity. At the Syntax, Lexical Semantics Interface*, Cambridge/London: The MIT Press.
- Magni, Elisabetta (2008), Continuità e contiguità nelle categorie verbali: le forme in -θ- del greco, *Archivio Glottologico Italiano*, 93 (2), 171–225.
- Prévot, André (1935), *L'aoriste grec en -θην*, Paris: Champion.
- Romagno, Domenica (2014), The aorist in -ην in Homeric Greek: at the morphosyntax/semantics interface. A thorough analysis of Iliad and Odyssey, *Archivio Glottologico Italiano*, 99 (2), 155–186.
- van Wolde, Ellen (2019), The Niphal as middle voice and its consequence for meaning, *Journal for the Study of the Old Testament*, 43, 453–478.
- Voitila, Anssi (2016), Septuagint Syntax and Hellenistic Greek, in Bons, E. & Joosten, J. (eds.), *Die Sprache der Septuaginta/The Language of the Septuagint. Handbuch zur Septuaginta/Handbook of the Septuagint. Band/ Volume 3*, Gütersloh: Gütersloher Verlagshaus, 109–118.

GS Information Structure

Interrogative phrases as opposed to declarative narrow focus: Focussing on cross-linguistic diversity

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Keywords: interrogative phrase; wh-phrase; content interrogative; focus; focus construction

This talk investigates the relation between narrow focus marking in declarative clauses and interrogative phrase marking in content interrogatives against data from genetically and areally diverse languages. The goal is to provide empirical feedback to the theoretical discussion whether interrogative phrases should be analysed as focussed.

The investigation assumes a non-derivational view of syntax and adopts the RRG scheme of layered clause structure (Van Valin 2023). Following Lambrecht (1996: 213), focus in declaratives is provisionally defined here as the non-presupposed semantic component of a proposition expressed by the clause.

Structural parallelisms between content interrogatives and narrow focus constructions observed in languages have led some linguists to claim that content interrogative constructions are in fact a type of focus constructions (cf. e.g. Horvath 1986: 118–122; Dik 1989: 278). On the other hand, other authors have since argued that content interrogative constructions and focus constructions should not be equated, basing their claim on detailed studies showing structural or pragmatic asymmetries between the two constructions in individual languages (cf. e.g. Aboh 2007: 299–307; Cable 2008).

This study aims to compare grammatical marking of the interrogative phrase in content interrogatives and the narrow focus phrase in declaratives for a larger cross-linguistic sample. The research questions addressed are: 1) whether such languages are attested that allow grammatical marking of narrow focus but no interrogative phrase marking, 2) whether such languages are attested that feature obligatory grammatical marking of narrow declarative focus but no obligatory marking of interrogative phrases, 3) how common it is for interrogative phrase and narrow focus marking to coincide in structure. Under the assumption that content interrogatives are a type of focus construction, the hypothesis would be borne out that an interrogative construction in a language should be reducible to a focus construction, conceivably with additional interrogative marking. Prosodical marking is not considered in the investigation.

The study builds on data from ca. 80 languages from six continents and 21 families.

No languages were found that mark declarative narrow focus but have no interrogative phrase marking. Similarly, there were no languages that would show obligatory marking of declarative focus but optional marking for interrogative phrases. In most languages in the sample, the interrogative construction is reducible to a focus construction. On the other hand, Cypriot Greek and Icelandic are examples where this is not the case: interrogative phrases must be placed in a left-peripheral slot, while narrow declarative focus may only be marked by clefting. In addition, some languages feature content interrogative and focus constructions that appear to be structurally identical but are associated with different interpretative features. For example, in Hungarian, the focal phrase in a declarative and the interrogative phrase apparently share the same position. However, the former is

always interpreted exhaustively whereas the latter need not be. The data therefore support the claim that content interrogatives should not be conceptualised as a type of focus construction, although the two constructions tend to be related.

References

- Aboh, Enoch O. (2007), Focused versus non-focused wh-phrases, in E. O. Aboh, K. Hartmann, and M. Zimmermann (eds), *Focus strategies in African languages: the interaction of focus and grammar in Niger-Congo and Afro-Asiatic*, 287–314, Berlin: Mouton de Gruyter.
- Cable, Seth (2008), *Wh-fronting (in Hungarian) is not focus-fronting*. Manuscript.
<http://people.umass.edu/scable/papers/Focus-Wh-Hungarian.pdf>. (15 January, 2024).
- Dik, Simon C. (1989), *The theory of functional grammar. Part 1: The structure of the clause*. Dordrecht / Providence: Foris Publications.
- Horvath, Julia (1986), *FOCUS in the theory of grammar and the syntax of Hungarian*. Dordrecht / Riverton: Foris Publications.
- Lambrecht, Knud (1996), *Information structure and sentence form: Topic, focus, and the mental representations of discourse referents*. Cambridge: Cambridge University Press.
- Van Valin, Robert D. (2023), Principles of Role and Reference Grammar. in D. Bentley, R. Mairal Usón, W. Nakamura, and R. D. Van Valin Jr. (eds), *The Cambridge Handbook of Role and Reference Grammar*, 17–178. Cambridge: Cambridge University Press.
<https://doi.org/10.1017/9781316418086.003>.

Differential case- and pragmatic marking, and verb-finality: An interactional view

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Keywords: differential case marking; interactional linguistics; information structure; word order; multimodality

Asian languages generally exhibit two opposite profiles of pragmatic adnominal marking (Michaud and Brunelle 2016). Some languages are characterised by large sets and frequency of Differential Argument Marking (DAM) and adnominal clitics. Other languages have limited sets and their usage is infrequent. However, it has remained unnoticed (to the best of our knowledge) that the two linguistic profiles largely correlate with the constituent order. Pragmatically driven DAM and particles are rare in VO languages, including Sinitic, Kra-Dai, and Austro-Asiatic languages. Pragmatic DAM is found in verb-final constructions in otherwise verb-medial languages (Su 2017 for Mandarin). Languages with frequent pragmatic DAM and abundant “pragmatic particles” are verb-final: Japanese, Korean (e.g. Nakagawa 2017), Tibeto-Burman (e.g. Chelliah and Hyslop 2011). We report results that suggest an interactional, usage-based link between adnominal marking and verb-finality, based on corpora of everyday speech from three languages: two distantly related Tibeto-Burman verb-final languages (Burmese and Anal Naga), and verb-medial Modern Hebrew.

Since utterance production is an incremental process, the initial nominal material can be performed separately in verb-final languages, before reaching – and, evidently, even planning – the final verb. As a result, NPs often form separate prosodic phrases or intonation units. The usage of DAM strongly corresponds to prosodic phrasing and interactional cues: case-marking appears as the last constituent in intonationally separate NPs, and strongly tends to be absent otherwise. This is illustrated in (1) and (2) from Anal Naga. For example, 77% of Burmese DOM-marked NPs form a separate IU and exhibit separate multimodal cues, as opposed to 6% of unmarked patient-arguments. Similarly, in Anal Naga case-marked P-arguments form Accentual Phrases in 94%, and exhibit multimodal cues in 55%, as opposed to 15% of unmarked ones. On the contrary, prosodic partitioning and multimodality are not factors related to DAM in Israeli Hebrew: NPs are detached prosodically from the verb only in cases of hesitation, irrespective of the DOM-marking. We hypothesize that there is an interactional pressure for the adnominal marking in verb-final languages and constructions: it locally cues the expected contribution of the NP, foreshadowing its relation to the (potentially yet vaguely planned) continuation.

Hence, this corpus examination of natural interaction reveals the differences in the incremental utterance production, which suggest that adnominal pragmatic morphology is linked to constituent order via interactional processes. Moreover, this analysis also sheds light on the elusiveness of the functions of adnominal markers in verb-final languages, as these are rooted in the incremental management of unfolding interaction, and not in the traditional pragmatic or syntactic concepts.

Case-marking:

(1) Case-marked prosodically detached NPs underlined. All NP-referents are new.

ka-p-- *ka-pá-PN* *pa--* *pastor-he-tũ:* ,
1-un-- 1-uncle-PN pa-- pastor-DEM1-ERG
'My unc- my uncle PN, the pa- pastor'

... *va-ból-to* , *vã:ka:l-lé:n* *i-t^hà-vá=tô* ,
3-trunk-ABS above-top NMLZ-built-COP=DM
... a tree trunk , it [the beehive] was built on the top of it,

va-t^hi-nól-má-vá
3-see-AUG-NEG-NFUT
'he didn't see it.'

(2) No prosodic partitioning, no case-marking: discussion of cattle raising; A-referent is new.

k^hi.k^hi-pá *tɕam^hù* *háŋ-t^hú-nú*
PN-father cow UP.TEMP-accompany-N.FUT
'Khikhi's father took the cows up.'

References

- Chelliah, Shobhana, and Gwendolyn Hyslop (eds.). 2011. Optional Case Marking in Tibeto- Burman. *Linguistics of the Tibeto-Burman Area* 34 (2)
- Hacohen, A. & Kagan, O. & Plaut, D., (2021) "Differential Object Marking in Modern Hebrew: Definiteness and partitivity", *Glossa* 6(1)
- Michaud, Alexis, and Marc Brunelle. 2016. "Information Structure in Asia" In Féry, C. and Shinichiro Ishihara (eds.), *Oxford Handbook of Information Structure*, 2048–70. Oxford: OUP Nakagawa,
- Natsuko. 2017. *Information Structure in Spoken Japanese*. Berlin: LSP.
- Su, Danjie. 2017. "Significance as a Lens: Understanding the Mandarin Ba Construction." *Journal of Pragmatics* 117:204–230.

Special Outreach Session

Justifying linguistic priorities: Public outreach grounded in linguists' views on essential knowledge about language

Tomas Lehecka, Jan-Ola Östman & Alexander Ginlund
(Åbo Akademi University, University of Helsinki & Åbo Akademi University)

Keywords: general knowledge, global survey, justification, public outreach, science communication

In the first part of the talk, we present our findings (cf. Lehecka & Östman (2022, 2023, submitted) from a world-wide online survey examining linguists' opinions on what should constitute general knowledge about language. Specifically, we asked linguists to formulate questions that they think it would be good for the general public to know the answers to. We received 3,349 suggestions for such questions from 538 linguists from 49 different countries. Afterwards, we asked the linguists to justify their responses, i.e., to explain in their own words why they regard the questions they wrote down as being especially important. In the talk, we explore these justifications by means of content and discourse analysis: what factors do linguists mention as influencing their reasoning about the importance and value of language-related knowledge among laypeople?

We find significant diversity in the justifications, which we analyze on three levels. First, we categorize them by reference to the perspective linguists take: individual (e.g., "speaking a language as L2 can be a problem to get a job") or societal (e.g., "it would make the country a better place if we could agree on the basic facts"). Second, we look at the evidence linguists invoke in support of their claims, noting whether they cite common misconceptions (e.g., "sign languages are often not considered full languages") or subjective experiences (e.g., "I've taught English as L2 and researched SLA topics"). Third, we consider the consequences they highlight, whether focusing on the risks of insufficient awareness (e.g., "a wrong perception of diversity leads to prejudice") or the benefits of increased awareness (e.g., "understanding the social impact of language use").

In the second, applied, part of the talk, we present a new online educational platform called *Upptäck språk* (Eng. *Exploring Language*) which constitutes a major initiative in public outreach and science communication in linguistics in Swedish. We have created this platform drawing upon the findings from our survey to linguists in that the platform covers all the topics and questions that linguists consider most important for the general public to know about, based on both the number of linguists who mentioned a respective topic in the survey and the justifications they provided regarding the importance of the topics. We have designed *Upptäck språk* as an online, virtual science center dedicated to language, accessible to anyone for free from their computer. The platform is popular-science oriented, presenting information playfully and with a strong emphasis on visual illustrations. In addition, the platform contains interactive elements, exercises and discussion questions, thus serving as a suitable resource for middle and high school L1 Swedish classes. Provided the platform resonates with its users, it will be translated into other languages as well. The goal of the platform is to spark people's interest in language, to increase their understanding of the fundamental principles of linguistic communication and to raise their awareness of topics and facts which, according to linguistic experts, constitute *essential* knowledge about language.

References

- Lehecka, Tomas & Jan-Ola Östman (2022), What should everyone know about language? On the fluidity of important questions in linguistics, *Finnish Journal of Linguistics* 35, 51–80. <https://journal.fi/finjol/article/view/113907>
- Lehecka, Tomas & Jan-Ola Östman (2023) Toward Establishing What Linguists Think the General Public Should Know about Language: Salient vs. important issues in linguistics, *Language and Linguistic Compass* 17(2), e12482. <https://doi.org/10.1111/lnc3.12482>
- Lehecka, Tomas & Jan-Ola Östman (submitted) What Linguists Think Everyone Should Know about Language – On Extracting Societal Salience from Open-ended Responses

Communicating the value of linguistic research on metaphor – including its implications for practice

Dunja Wackers
(Leiden University)

Since the cognitive-linguistic turn in metaphor studies, metaphors have been recognized as ubiquitous conceptual devices that enable us to compare relatively abstract and complex topics to topics that are more concrete and familiar (Gibbs, 2011; Lakoff & Johnson, 1980). Outside the field of metaphor studies, however, a common understanding of metaphor seems to remain limited to its role as a literary device or figure of speech (see for example Van Poppel, 2021).

In this talk I will argue that increased attention to cognitive-linguistic research on metaphor can enhance public awareness of the value of linguistic research for society. I will motivate this by discussing two studies on metaphors that affect our understanding of (emotionally and cognitively) complex topics. These concern metaphors that are used to conceptualize the emotional effects of living with cancer, and metaphors for quantum science and technology.

Firstly, a large body of research has shown that the conventional usage of metaphors of violence for cancer, such as ‘she is fighting cancer’ and ‘cancer is a battle’, can have detrimental effects on people who are affected by the disease (e.g. Semino et al., 2020). Wackers & Plug (2022) have demonstrated that language users are able to *extend* violence metaphors for cancer: by reinterpreting the metaphors’ conventional meanings, language users can circumvent the metaphors’ negative implications without avoiding the source domain entirely. The study’s findings can contribute to the development of practical guidelines for communication in healthcare settings. Specifically, by raising awareness of the detrimental interpretations of violence metaphors as well as the fact that the metaphors can be understood in a different light, patients, healthcare professionals, and other stakeholders may be encouraged to reinterpret the metaphors in a way so to make them fit with their actual or desired perspective on the target issue.

Secondly, metaphors are considered among the most important communicative devices for communicating about science and technology (Droog et al., 2020). Quantum science and emerging quantum technologies are currently expected to have far-reaching implications on society, in areas ranging from national security to medical research, and from navigation to finance (e.g. European Quantum Flagship, 2020). While researchers have stressed the importance of societal engagement with emerging quantum technologies – for instance, to ensure that their development complies with societal needs and ethical, legal, and social values (e.g., De Jong, 2022; Vermaas, 2017) – the question how a public dialogue between experts and non-experts needs to be shaped has received little academic attention. Our current research on metaphors for quantum sets out to demonstrate how metaphors can help non-experts make sense of its abstract and complex nature, enabling them to take part in public discussions about quantum’s influence on society.

In sum, metaphor research provides insight about the role of metaphor in our everyday lives – affecting how we conceptualize the world around us, and how we make sense of complex and abstract topics. As such, it constitutes a rich source for outreach on the contribution of linguistic research to society.

References

- Droog, E., Burgers., C, and Kee, K. (2020). How journalists and experts metaphorically frame emerging information technologies: the case of cyberinfrastructure for big data. *Public Underst. Sci.*, 29, 819–34. European Quantum Flagship 2020 *Strategic Research*
- Gibbs Jr, R. (2011). Evaluating conceptual metaphor theory. *Discourse processes*, 48(8), 529-562.
- de Jong, E. (2022). Own the Unknown: An Anticipatory Approach to Prepare Society for the Quantum Age. *Digital Society*, 1-15. <https://doi.org/10.1007/s44206-022-00020-4>
- Lakoff, G., & Johnson, M., (1980). *Metaphors We Live by*. Chicago, IL: University of Chicago Press.
- van Poppel, L. (2021). The study of metaphor in argumentation theory. *Journal of Argumentation*, 35, 177–208. doi:10.1007/s10503-020-09523-1.
- Semino, E., Demjén, Z., Hardie, A., Payne, S., & Rayson, P. (2020). *Metaphor, Cancer and the End of Life*. Taylor and Francis.
- Vermaas, P.E. (2017). The societal impact of the emerging quantum technologies: a renewed urgency to make quantum theory understandable. *Ethics Inf Technol*, 19, 241–246. doi:10.1007/s10676-017-9429-1
- Wackers, D. Y. M. & Plug, H. J. (2022). Countering Undesirable Implications of Violence Metaphors for Cancer through Metaphor Extension, *Metaphor and Symbol*, 37(1), 55-70. doi:10.1080/10926488.2021.1948334

Why linguistics is (ir)relevant: a corpus-based account

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All major societal problems involve language. Whether it is the often discussed ‘trust crisis’ in Western democracies and institutions (Garland 2021), societal debates about sustainability and climate change (Fløttum 2017), or the dramatic loss of cultural and linguistic diversity itself (Tsunoda 2006).

The discipline of linguistics at large touches upon these issues in various ways and the degree to which individual linguists occupy themselves with such societal questions professionally depends (at least in part) on personal inclination and research agendas but also on departmental structures within universities (e.g. do linguistics and communication studies share an academic unit, or not) and cross-disciplinary incentives at various levels of (academic) governance, (e.g. does a university or grant scheme stimulate cross-disciplinary research into particular societal themes). A further factor in the development towards a greater focus on broader societal issues are marketing campaigns of Arts Faculties in which the societal impact of the Humanities is routinely touted.

Under these influences, linguists make promises regarding the utility of linguistics, beyond the ivory towers of academia. These relate to our suggested ability to increase understanding across communities and cultural boundaries, to affect the conceptualization of wicked problems, and to bring languages back to life, among many others.

In this study, I present an inventory and classification of such claims, based on a qualitative discourse analysis of the ‘Promises of Linguistics’ corpus (PROMoLING), a collection of 80 texts between 500 and 4000 words each about the utility of linguistics, collected for the purposes of the present study. These texts have been drawn from Mission and Welcoming statements of Anglophone and European linguistics departments, introductory texts on linguistics and white papers and position papers in which linguistics is explicitly invoked as a solution for a societal problem. Using the R-package RQDA (Huang 2016), I have marked up the PROMoLING corpus for the specific societal problem identified in the text, the specific role linguistics plays in the proposed solution and the challenges highlighted in effectuating these solutions. I also conduct a general Appraisal analysis of the data (White 2011), revealing the attitudes towards the claims about the utility of linguistics and indicating which claims are presented as firm statements and which contributions of linguistics are presented as more tentative.

After outlining these results, I place them in the context of my own experience as a linguist working in a communications department and within research networks on sustainability, language use in an institutional context and with an endangered language community. I relate this context to the themes identified in PROMoLING and end on two areas where, I propose, the PROMoLING claims are *overpromising* and two where they are *underpromising*. Each of these cases, I propose, undercuts the real impact that linguistics can make.

References

- Fløttum, Kjersti, ed. 2017. *The Role of Language in the Climate Change Debate*. New York/Abingdon: Routledge. <https://doi.org/10.4324/9781315456935>.
- Garland, Ruth. 2021. *Government Communications and the Crisis of Trust: From Political Spin to Post-Truth*. Springer International Publishing. <https://doi.org/10.1007/978-3-030-77576-6>.
- Huang, Ronggui. 2016. "RQDA: R-Based Qualitative Data Analysis." <http://rqda.r-forge.r-project.org/>.
- Tsunoda, Tasaku. 2006. *Language Endangerment and Language Revitalization: An Introduction*. Berlin/New York: Mouton de Gruyter.
- White, Peter R. R. 2011. "Appraisal." In *Discursive Pragmatics*, edited by Jan Zienkowski, Jan-Ola Östman, and Jef Verschueren, 14–36. Amsterdam/Philadelphia: John Benjamins.

Citizen science and mode-2: New terms for old practice in linguistics?

Chris Lasse Däbritz
(Universität Hamburg)

As commonly known and amply emphasized by, e.g., the German Science and Humanities Council, science communication is an integral part of the “third mission” of universities and other research institutions in the 21st century (WR 2021: 13–17). During the last decades, a wide range of science communication formats has arisen, among them monologic and dialogic ones (Giardullo et al. 2023: 1–3; Pasternack 2023: 47). Among the dialogic formats, *citizen science* provides a link to participatory research – “mode-2 research” after Gibbons et al. (1994) and Nowotny et al. (2003) – so that the scientific community is both sender and receiver of information (Pasternack 2023: 195–196). This talk analyses fieldwork as a research practice in linguistics against the background of citizen science approaches, drawing borders and seeking convergences from a rather theoretical perspective. Additionally, it points to possibilities and limitations of citizen science formats in linguistics.

Although a widely accepted definition of *citizen science* is hardly available, most approaches agree that the key concept of citizen science is non-professionals being actively involved in the scientific process (Haklay et al. 2021: 15–18). According to Weitze & Heckl (2016: 34–35), citizen science is most promising in local contexts, if the non-professionals possess some kind of (expert) knowledge (yet) unavailable for the professionals. This scenario immediately reminds one of linguistic fieldwork since, e.g., Chelliah & de Reuse (2011: 7; emphasis mine) define “descriptive linguistic fieldwork as the investigation of the structure of a language through the collection of primary language data gathered through interaction with native-speaking consultants”. The consultants’ expert knowledge is apparently their language proficiency, usually acquired in uninstructed and unguided settings.

Indeed, linguistic fieldwork is a domain that per se calls for citizen science approaches, and Thieberger (2016: 91–92) emphasises its importance for the outreach of linguistics. Beyond the domain of fieldwork, Svendsen (2018) convincingly shows that sociolinguistic research is prone to applying citizen science methods since speakers as individuals are good experts of their societal environment. Furthermore, Svendsen (2018: 155–156) concludes that such “citizen sociolinguistics” has a good potential to advance the societal impact of linguistics.

In my talk, I argue that the mere collection or elicitation of (naturalistic) language data does not yet qualify for being an instance of citizen science since the consultant and their language proficiency is the object of the scientific process here rather than a participant of it. However, as soon as native speaker consultants are involved in further processing and analysing the language data (e.g., assisting in transcribing sound material, providing translations) or even take over tasks from the linguists (e.g., recording sound material from other native speakers, transcribing sound material individually, collecting metadata, collecting sociolinguistic data), this is surely an instance of citizen science from my point of view. Furthermore, I argue that the application of citizen science formats in linguistics – be the target language endangered or not – is very promising for both the linguistic community and the perception of linguistic research in the society.

References

- Chelliah, Shobhana L. & de Reuse, Willem J. 2011. *Handbook of Descriptive Linguistic Fieldwork*. Dordrecht [i.a.]: Springer.
- Giardullo, Paolo & Neresini, Federico & Marín-González, Esther & Luís, Cristina & Magalhães, Joana & Arias, Rosa. 2023. Citizen science and participatory science communication: an empirically informed discussion connecting research and theory. *Journal of Science Communication* 22(2), 1–18. (DOI: [10.22323/2.22020201](https://doi.org/10.22323/2.22020201))
- Gibbons, Michael & Limoges, Camille & Nowotny, Helga & Schwartzman, Simon & Scott, Peter & Trow, Martin. 1994. *The New Production of Knowledge: The Dynamics of Science and Research in Contemporary Societies*. London: Sage.
- Nowotny, Helga & Scott, Peter & Gibbons, Michael. 2003. 'Mode 2' Revisited: The New Production of Knowledge. *Minerva* 41, 179–194.
- Pasternack, Peer. 2023. *Wissenschaftskommunikation, neu sortiert. Eine Systematisierung der externen Kommunikationen der Wissenschaft*. Unter Mitarbeit von Andreas Beer, Claudia Göbel, Daniel Hechler, Justus Henke, Sylvi Mauermeister, Henning Schulze und Steffen Zierold. Wiesbaden: SpringerVS.
- Weitze, Marc-Denis & Heckl, Wolfgang M. 2016. *Wissenschaftskommunikation. Schlüsselideen, Akteure, Fallbeispiele*. Wiesbaden: SpringerSpektrum.
- WR 2021 = The German Science and Humanities Council (ed.). 2021. *Wissenschaftskommunikation. Positionspapier*. <https://www.wissenschaftsrat.de/download/2021/9367-21.html>, last accessed: 05.03.2024.

Plenary Session

Towards an integrative typology of tone

Sandra Auderset
(University of Bern)

In this talk, I argue that in order to better understand and explain tonal phenomena on a cross-linguistic level, we have to integrate tone typology into a broader research program with phonetics, morphosyntax, and historical linguistics. Himmelmann (2023) similarly concludes for ‘stress’ that it is not a useful concept for cross-linguistic comparison because it is multidimensional and highly complex. Even when each dimension is considered separately, comparison remains challenging not least because our understanding of the phenomenon is heavily influenced by (work on) European stress systems. It is not a coincidence that tone confronts similar issues.

Many – possibly a majority of – languages of the world are described as tonal (Yip 2002), but tonal phenomena are conspicuously absent from cross-linguistic studies and large-scale databases. Out of the 195 Grambank features (Skirgård et al. 2023), only one (GB291) makes reference to tone (in the context of polar question marking). If languages with tones are included in typological resources, classifications are often based on coarse-grained types, such as ‘simple’ (two tones) and ‘complex’ (more than two tones) in WALS (Maddieson 2013). These are carried over into cross-linguistic studies making broad claims about tonal languages (cf. Dediu 2011, Everett et al. 2015, Everett et al. 2016). Such coarse-grained system classifications have long been recognized as problematic because they obscure the actual diversity found within and across languages (cf. Brunelle & Kirby 2016) and treat tone as a disconnected from the from the rest of grammar. Heath (2016) observes that tonal languages are particularly ill-suited for traditional typology because of language-specific, systematic interactions between the tonal patterns and other parts of grammar. An example of such interactions are tonosyntactic patterns in Dogon that override lexical tones on adjacent constituents (Heath & McPherson 2013). Of course such systematic interactions are not limited to tonal phenomena – they are just much harder to ignore than with other phonological and morphosyntactic concepts.

Finer-grained tone typologies include Hyman’s (2009, 2015) ‘property-driven’ or canonical approach and feature-based approaches (Maddieson 1972). Other typologies have focused on specific areas, families, or subsystems (e.g., Hildebrandt 2004 on Bodish, Palancar et al. on Otomanguean, Kaldhol 2024 on tonal exponence). Such approaches are confronted with various difficulties, ranging from basic questions of what constitutes ‘tone’ and a ‘tone language’ to more systematic ones regarding the phonetic correlates of the ‘tones’ and their function within the larger language system. Tone seems difficult to compare if conceptualized as a holistic category but also if we decompose it into finer-grained variables.

The way forward is not to propose ever more abstract, global variables, but to study tone in its natural habitat and to integrate different components into an explanatory, empirical framework. Research in this direction is already in progress, including phonetic correlates as causal models for tonogenesis (Gao & Kirby 2024), the inclusion of tonal processes into constituency typology (Tallman et al. 2024), and testing assumptions about tone change (Auderset 2024). I explore how an integrative (tone) typology can work towards connecting these results.

References

- Auderset, Sandra. 2024. Rates of change and phylogenetic signal in Mixtec tone. *Language Dynamics and Change* 14 (1)
- Brunelle, Marc, and James Kirby. 2016. Tone and Phonation in Southeast Asian Languages. *Language and Linguistics Compass* 10 (4): 191–207
- Dediu, Dan. 2011. A Bayesian phylogenetic approach to estimating the stability of linguistic features and the genetic biasing of tone. *Proceedings of the Royal Society B: Biological Sciences* 278 (1704): 474–79
- Everett, Caleb, Damián E. Blasi, and Seán G. Roberts. 2015. Climate, vocal folds, and tonal languages: Connecting the physiological and geographic dots. *Proceedings of the National Academy of Sciences*
- Everett, Caleb, Damián E. Blasi, and Seán G. Roberts. 2016. Language evolution and climate: The case of desiccation and tone. *Journal of Language Evolution* 1 (1): 33–46
- Gao, Jiayin, and James Kirby. 2024. Laryngeal contrast and sound change: The production and perception of plosive voicing and co-intrinsic pitch. *Language* 100 (1): 124–58.
- Heath, Jeffrey. 2016. Type-ology or Typ-ology? *Linguistic Typology* 20 (3): 479–95
- Heath, Jeffrey & Laura McPherson. 2013. Tonosyntax and Reference Restriction in Dogon NPs. *Language* 89 (2): 265–96
- Hildebrandt, Kristine A. 2007. Tone in Bodish Languages: Typological and Sociolinguistic Contributions. In Miestamo & Wälchli (eds.). *New Challenges in Typology*. Mouton de Gruyter
- Himmelman, Nikolaus P. 2023. On the comparability of prosodic categories: Why ‘stress’ is difficult. *Linguistic Typology* 27 (2): 341–61
- Hyman, Larry M. 2009. How (Not) to do phonological typology: The case of pitch-accent. *Language Sciences* 31 (2-3): 213–38.
- Hyman, Larry M 2015. Towards a canonical typology of prosodic systems. In Herrera Zendejas (ed.). *Tono, Acento y Estructuras Métricas En Lenguas Mexicanas*. México: El Colegio de México
- Maddieson, Ian. 1972. Tone System Typology and Distinctive Features. *Proceedings of the 7th International Congress of Phonetic Sciences*, 958–61.
- Maddieson, Ian. 2013. Tone. In Dryer & Haspelmath (eds). *The World Atlas of Language Structures Online*. Leipzig: Max Planck Institute for Evolutionary Anthropology. <https://wals.info/>
- Palancar, Enrique L, Jonathan D Amith, and Rey Castillo García. 2016. A Typology of Tone and Inflection: A View from the Oto-Manguean Languages of Mexico. In Palancar & Léonard (eds.). *Tone and Inflection: New Facts and New Perspectives*. Amsterdam: De Gruyter Mouton
- Tallman, Adam J. R., Sandra Auderset, and Hiroto Uchihara, eds. 2024. *Constituency and Convergence in the Americas*. Berlin: Language Science Press
- Yip, Moira. 2002. *Tone*. Cambridge University Press

Workshops

WS1 Anglicism
research in Europe:
From vocabulary to
use

Constructional borrowing from English

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Keywords: constructions, Diasystematic Construction Grammar, English, Dutch, contact-induced variation and change

Background and aims: This paper aims to illustrate the benefits of Diasystematic Construction Grammar (DCxG) (Höder 2012) for a usage-based description of the linguistic influence of English. The gist of the approach is that language users conflate similar constructions in the languages in their input as belonging to a common “diaconstruction”, through their identification of patterns across source and receptor language. As such, it allows us to expand the initial focus of Anglicism research on the borrowing of loanwords to the incorporation and integration of multi-word units and phrases. In emphasizing the interaction of matter (form) and pattern (meaning) borrowing (examples 1 to 3), DCxG in that sense particularly allows us to prioritize how language users engage creatively with source and receptor language.

- (1) Matter replication:
English *from the top of my head* in Norwegian (Sunde 2018)
- (2) Pattern replication:
German *Elefant im Raum* based on English *elephant in the room* (Fiedler 2017)
- (3) Combination:
[NP is DET *bitch*] in Dutch, e.g. *karma is een bitch* (Zenner et al. 2017)

Following a comparison of construction grammatical and phraseological approaches to borrowing (De Pascale et al. 2022), two complementary case-studies are presented.

Case-study 1 adopts a bird’s eye variational perspective to the construction [A^{superlative} N *ooit/ever* (Ptcp)] in Dutch (e.g. *beste zomer ever* ‘best summer ever’), which is used to exclaim how some N is extraordinarily ADJ. Semi-automatic diachronic analyses are conducted of the choice for *ooit* or *ever* in over 100,000 instances of the construction drawn from a Twitter corpus from the Low Countries for the period 2011-2016. Results reveal (i) frequency boosts, more for *ooit* than for *ever*; (ii) pragmatic and constructional specialization for the *ever* variant, which is reserved for subjective and highly positive contexts (e.g. *zotste feest ever*, see Zenner et al. 2018). Hence, starting from constructions here allows us to also capture the more indirect influence of contact with English on Dutch forms, and to chart the progressive division of labor between English and Dutch variants within the construction.

Case-study 2 uncovers the constructional templates in uses of English *fuck* and *love* in Dutch chat data (Sanders 2012, Verheijen & Van Hout 2022). Qualitative analyses of over 500 instances illustrate how the English elements occur in constructions with varying degrees of fixedness and schematicity (e.g. *love you too* vs. [*fuck NP*]). The constructional approach here allows us to hypothesize usage-based trajectories from source-language input (*fuck life, fuck that shit*) over schematization ([*fuck NP*]) to mixed-language instances (e.g. *fuck die gast*).

Implications: Together, the studies (i) illustrate how single-word English items are often part of underlying schematic templates in which language users (re)shape forms and meanings sourced from English alongside, and together with, receptor language material; (ii) compare the benefits and drawbacks of large-scale approaches versus detailed qualitative analyses to uncover the link between

linguistic input, mental categorization and linguistic output in language contact (cf. AUTHORS); (iii) overall, demonstrate the potential of a DCxG for the usage-based turn in Anglicism research.

References

- De Pascale, Stefano, Dirk Pijpops, Freek Van de Velde & Eline Zenner (2022), Reassembling the pimped ride: A quantitative look at the integration of a borrowed expression, *Frontiers in Communication* 7, Art.No. 777312, 1-13.
- Fiedler, Sabine (2017), Phraseological borrowing from English into German: cultural and pragmatic implications. *Journal of Pragmatics* 113, 89.e102.
- Hilte, Lisa (2019), *The social in social media writing: The impact of age, gender and social class indicators on adolescents' informal online writing practices*. Antwerp: University of Antwerp dissertation.
- Höder, Steffen (2012), Multilingual constructions: a diasystematic approach to common structures, in K. Braunmüller & C. Gabriel (eds.), *Multilingual individuals and multilingual societies*, Amsterdam/Philadelphia: Benjamins, 241–257.
- Sanders, Eric (2012), Collecting and analysing chats and tweets in SoNaR, in N. Calzolari et al. (eds.), *Proceedings of the Eighth International Conference on Language Resources and Evaluation, European Language Resources Association*, 2253-2256.
- Sunde, Anne Mette (2018), A typology of English borrowings in Norwegian, *Nordic Journal of English Studies* 17(2), 71-115.
- Verheijen, Lieke & Roeland van Hout (2022), Manifold code-mixing in computer-mediated communication: The use of English in Dutch youths' informal online writing, *Ampersand* 9, 100091.
- Zenner, Eline, Kris Heylen & Freek Van de Velde (2018), Most borrowable construction ever! A large-scale approach to contact-induced pragmatic change, *Journal of Pragmatics* 133, 134-149.
- Zenner, Eline, Tom Ruetten & Emma Devriendt (2017), The borrowability of English swearwords: An exploration of Belgian Dutch and Netherlandic Dutch tweets, in K. Beers Fägersten, K. Stapleton (eds.), *Advances in Swearing: New languages and new contexts*, Amsterdam: John Benjamins, 107-135.

Consumer characteristics that predict response to English in product advertising in Taiwan and the Netherlands

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Keywords: English, advertising, cross-national, non-native evaluators, background characteristics

Previous studies have shown that the effect of English in advertisements on non-native speakers of English might be influenced by these speakers' background characteristics, such as general language attitudes (van Hooft et al. 2021), English proficiency (Caldwell-Harris and Aycicegi-Dinn 2016), familiarity with English (Lin and Wang 2016a), and global-local identity (Lin and Wang 2016b). However, no studies to date appear to have investigated the predictive value of all these background characteristics for response to English in advertising for samples of different nationalities. The aim of this study was to do so for consumers in a European and non-European country. In an experiment, 73 Taiwanese and 34 Dutch participants evaluated three English product ads and answered background questions. We tested to what extent comprehensibility of the ad, attitudes towards the ad and purchase intentions were predicted by the four above-mentioned background characteristics: general language attitudes to English, English proficiency, self-reported frequency of use of English, global-local identity, as well as an important product-related characteristic, general purchase habits regarding the advertised products (cf. Fishbein and Ajzen 2010). Multiple regression analysis revealed that comprehensibility of the ad, attitudes towards the ad and purchase intentions were predicted by participants' general language attitudes to English, English proficiency, and self-reported frequency of use of English. Participants' attitudes towards the ad and purchase intentions were predicted by their general language attitudes to English. Attitude towards the product was predicted by participants' general language attitudes to English, English proficiency, and general purchase habits regarding the products. In conclusion, in line with earlier studies, the current study shows that response to English in advertising can be explained by consumers' linguistic background characteristics related to English. The current study is the first to show consumers' perceptions of English in advertising is influenced by multiple facets of their English background characteristics.

References

- Caldwell-Harris, Catherine and Ayse Aycicegi-Dinn (2016), Emotionality Differences between a Native and Foreign Language: Implications for Cultural Marketing Strategies, *Journal of Cultural Marketing Strategy* 2(1), 9–20.
- Fishbein, Martin and Icek Ajzen (2010), *Predicting and changing behavior: The reasoned action approach*. New York: Psychology Press.
- Lin, Ying-Ching and Kai-Yu Wang (2016a), Language Choice in Advertising for Multinational Corporations and Local Firms: A Re inquiry Focusing on Monolinguals. *Journal of Advertising* 45(1), 43–52.
- Lin, Ying-Ching and Kai-Yu Wang (2016b), Local or Global Image? The Role of Consumers' Local–Global Identity in Code-Switched Ad Effectiveness among Monolinguals. *Journal of Advertising* 45(4), 482–497.
- van Hooft, Andreu, Frank van Meurs and Qudsiyah Braaf (2021), General language use, language proficiency and language attitudes as predictors of consumer response to the use of Spanish

and English in advertising in Chile and Mexico, in M. K. J. Waiguny and S. Rosengren (eds), (2021), *Advances in Advertising Research (Vol. XI): Designing and Communicating Experience*. Wiesbaden: Springer Gabler, 77–89.

***Scary, creepy* or just *eng*? Mapping usage patterns of English versus Dutch adjectives in Flemish teen speak**

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Keywords: anglicism research, youth language, developmental sociolinguistics, evaluative adjectives, English in Dutch

Background and aim: This paper aims to study to what extent English evaluative adjectives are used as youth language markers by (emerging) adolescents in Flanders. Thus, it cross-compares two resources typically considered to be indicative of youth language. On the one hand, young people's language use is often linked to English loanwords (e.g. *creepy*, *crazy*), for different European languages (e.g. Leppänen 2007), including Belgian Dutch (Schuring et al. 2023). On the other hand, youth identity can be highlighted in speech through evaluation strategies like (over)using evaluative adjectives (Tagliamonte & Pabst 2020). Taking an onomasiological approach, we set out to disentangle the interaction between English loanwords and evaluation in Flemish youth language practices.

Method: To address the research aim, we collect production data from two groups of Belgian Dutch-speaking respondents: a group of 5 self-identified adolescents (11-13 y/o) and a group of 5 self-identified preadolescents (8-9 y/o). The respondents participate in two (topic controlled) tasks: a one-on-one sociolinguistic interview with the researcher (non-youth language context, 1 hour per respondent) and an unmonitored spontaneous peer group conversation (youth language context, 90 minutes per respondent group).

Data and analysis: The resulting corpus consists of 13 hours of video data and 11 218 respondent utterances, which include 2406 adjectives. In this data set, all evaluative adjectives are identified, using subjectivity ratings extracted from the Python module *Pattern.nl* (cf. De Smedt & Daelemans 2012). These adjectives are subsequently labeled according to LANGUAGE (English vs. Dutch) and subdivided by TYPE (e.g. polarity, syntactic position, intensification). Next, through fine-grained onomasiological analysis, we study adjective distribution (Balteiro 2018) and dispersion (Chesley & Baayen 2010), comparing age groups (preadolescents vs. adolescents) and contexts (youth language vs. non-youth language).

Results: The findings suggest the prevalence of English in teens' adjectival use is limited, given Dutch evaluative adjectives are much more frequent in the data (see also Zenner et al. 2023). However, we find significantly more English evaluative adjectives in (1) the youth language context of (2) the adolescent respondents specifically; and (3) observe a stronger effect for highly subjective adjectives of positive evaluation like *nice*, *cool* and *funny*.

Implications: The findings are discussed in relation to the presence and nature of narratives in the two contexts and reflect on the co-occurrence of English evaluative adjectives and other youth language features like intensification, distinctive intonation patterns and specific gestures (Svendsen & Jonsson 2023). Highlighting the perspective of the teenage language user, this paper contributes to the socio-pragmatic turn in Anglicism research (Andersen et al. 2017). Thus, it will foster further research efforts on the indexical power of English loanwords in the language of the youth in Europe and beyond.

References

- Andersen, Gisle, Cristiano G. Furiassi & Biljana Mišić Ilić (2017). The Pragmatic Turn in Studies of Linguistic Borrowing. *Journal of Pragmatics* 113, 71–76.
- Balteiro, Isabel (2018). *Oh wait* : English pragmatic markers in Spanish football chatspeak. *Journal of Pragmatics* 133, 123-133.
- Chesley, Paula & Harald R. Baayen (2010). Predicting new words from newer words: lexical borrowing in French. *Linguistics* 48(6), 1343–1374.
- De Smedt, Tom & Walter Daelemans (2012). "Vreselijk mooi!"(terribly beautiful): A Subjectivity Lexicon for Dutch Adjectives. *Proceedings of the eighth international conference on language resources and evaluation (LREC)*, 3568-3572.
- Leppänen, Sirpa (2007). Youth language in media contexts: Insights into the functions of English in Finland. *World Englishes* 26(2), 149-169.
- Schuring, Melissa, Laura Rosseel & Eline Zenner (2023). Says who? Language regard towards speaker groups using English loanwords in Dutch. *Folia Linguistica*, 57(2), 387-412.
- Svendsen, Bente A. & Rickard Jonsson (2023). *The Routledge Handbook of Language and Youth Culture*. Routledge: New York.
- Tagliamonte, Sali A. & Katharina Pabstn(2020). A *cool* comparison: Adjectives of positive evaluation in Toronto, Canada and York, England. *Journal of English Linguistics* 48(1), 3-30.
- Zenner, Eline, Lisa Hilte, Ad Backus & Reinhild Vandekerckhove (2023). On *sisters* and *zussen*: integrating semasiological and onomasiological perspectives on the use of English person-reference nouns in Belgian-Dutch teenage chat messages. *Folia Linguistica* 5(2), 449-480.

**“See on nagu *kinda* sad, et mu nagu *brain* on nagu *wired*”:
The adoption and motivations of English usage by teenage Swedish Estonians**

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Keywords: code-switching, youth language, multilingualism, Swedish Estonians, English

21st-century teenagers have been exposed to numerous sociocultural shifts (e.g., widespread mobility, the adoption of new mediums and English establishing itself as a lingua franca among non-English speakers), which in turn have shaped the way teenagers communicate (Leppänen 2007, Tagliamonte 2016, Beuter 2023). As noted by Eckert (1997: 1), “adolescents are the linguistic movers and shakers,” thus serving as the central stage for researching linguistic innovation and change. Teenagers are perceived as users of “bad language,” a notion which in non-English speaking countries (such as Estonia) is often associated with the heavy use and influence of English (see Norvik & Pajusalu 2022, Lindström, Risberg & Plado 2023).

Recent studies (Praagli et al. 2022, Vihman et al. 2022, Vihman et al. in review) reveal the prevalent effects globalization and mediatization have had on the language of the Estonian youth: English lexical items make up between 3.4–7.5% of the tokens used by Estonian teenagers when speaking with each other. English is particularly attractive for expressing emotions, connecting with peers, and engaging in global youth culture.

This study aims to deepen the understanding of how and why Estonian youth use English by focusing on adolescent Estonian heritage speakers in Sweden in comparison with adolescents in Estonia. Several studies (see Raag 2010) have described the language use of this community, though very few have observed teenage speakers or included the effects of English. Hence, this study addresses the following questions: (1) to what degree and how do Swedish Estonians use English elements, (2) what are the speakers’ sociopragmatic motivations for such usage, and (3) how in these aspects speakers compare with Estonian teenagers.

Twenty-one first- and second-generation Swedish Estonians aged 12–17 years (15 female, five male, one other) participated in this study. Based on self-reported ratings (5-point scale), speakers indicated having a good command of Swedish (M=4.8), Estonian (M=4.3), and English (M=4.2). Data was elicited in the form of semi-structured dialogues; bilingual (Estonian and Swedish) prompts were used to build and guide the conversations revolving around everyday topics (such as school life or hobbies). The recordings resulted in a corpus of nearly 20 hours of spoken data; the teenagers’ speech comprises around 150,000 tokens (or 18,000 utterances).

A preliminary corpus analysis reveals that around 3% (N=4463) of spoken tokens contain a non-Estonian element: 53.7% of these are English, 45% Swedish, and 1.3% are other-language insertions. In contexts requiring morphological marking, English insertions are more often integrated than not. A closer examination suggests that nouns, noun phrases, and verbs are mostly marked, whereas adjectives are twice as likely to remain unmarked (cf. Vihman et al. in review). Regarding sociopragmatic functions, code-switching is primarily referential, with English elements predominantly linked to social media, TV, and gaming and Swedish elements associated with school, food, and locations. Additionally, speakers

frequently use English for expressive purposes, such as emphasis or evaluation. Overall, findings suggest that, in many ways, English usage of young Swedish Estonians resembles that of Estonian teenagers.

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References

- Beuter, Katharina (2023), *English as a Lingua Franca among Adolescents: Transcultural Pragmatics in a German-Tanzanian School Setting*, Berlin, Boston: De Gruyter Mouton, <https://doi.org/10.1515/9783110786576>.
- Eckert, Penelope (1997), Why ethnography?, in U-B. Kotsinas, A-B. Stenström, and A-M. Karlsson (eds), (1997), *Ungdomsspråk i Norden*, Stockholm: Stockholm University, 52–62.
- Leppänen, Sirpa (2007), Youth language in media contexts: insights into the functions of English in Finland, *World Englishes* 26(2), 149–169, <https://doi.org/10.1111/j.1467-971X.2007.00499.x>.
- Lindström, Liina, Lydia Risberg, and Helen Plado (2023), Language ideologies and beliefs about language in Estonia and Estonian language planning, *Eesti ja soome-ugri keeleteaduse ajakiri. Journal of Estonian and Finno-Ugric Linguistics* 14(1), 7–48, <https://doi.org/10.12697/jeful.2023.14.1.01>.
- Norvik, Miina, and Renate Pajusalu (2022), „Mina räägin kõigiga ühtemoodi, omas stiilis“: Eestlaste arvamusi keelest ja keelekasutusest, *Akadeemia* 34(7), 1202–1238.
- Praakli, Kristiina, Mari-Liis Korkus, Aive Mandel, Elisabeth Kaukonen, Annika Kängsepp, Triin Aasa, Kristel Algvere, Helen Eriksoo, Marion Mägi, Getri Tomson, and Liina Lindström (2022), „Mis keeles ma räägin, I don't know“. Eesti sisuloojate inglise keele kasutusest YouTube'is, *Philologia Estonica Tallinnensis* (7), 263–290, <https://doi.org/10.22601/PET.2022.07.10>.
- Raag, Raimo (2010), Eestlased ja eesti keel Rootsisis, in K. Praakli, and Jüri Viikberg (eds), (2010), *Eestlased ja eesti keel välismaal*, Tallinn: Eesti Keele Sihtasutus, 385–432.
- Tagliamonte, Sali A. (2016), *Teen Talk: The Language of Adolescents*, Cambridge: Cambridge University Press, <https://doi.org/10.1017/CBO9781139583800>.
- Vihman, Virve-Anneli, Maarja-Liisa Pilvik, Mari-Liis Korkus, and Kristiina Praakli (in review), *Verinaiss* “very nice”: The integration of English in Estonian teenagers’ instant messages.
- Vihman, Virve-Anneli, Kristiina Praakli, Maarja-Liisa Pilvik, and Mari-Liis Korkus (2022), Kas noored on inglise keelega “obsessed”? Millest räägivad korpusandmed?, *Philologia Estonica Tallinnensis* (7), 292–321, <https://doi.org/10.22601/PET.2022.07.11>.

The use of anglicisms in product advertisements: A key to being noticed?

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Keywords: anglicisms, attention, advertising, effectiveness, eye track

English frequently appears in advertising in countries where English is not spoken as an official language (see Hornikx & van Meurs, 2020). In the literature, (e.g. Ahn & Ferle, 2008) suggestions were made that English is used to attract readers' attention. Several studies in advertising (e.g. Lohse, 1997, and Pieters & Wedel, 2007) have shown that some characteristics of an ad (like colour, size etc.) can draw the readers' attention if they deviate from what the reader expects.

Though pictorial elements of the advertisement seem to be most relevant for attention, changes to the size and colour of textual elements also influence readers' attention (Casado-Aranda, Sánchez-Fernández & Ibáñez-Zapata, 2023). The use of anglicisms is expected to have a similar effect. However, empirical studies on whether a language change (from consumers' native language to English) also has this effect are very scarce.

We argue that English, irrespective of consumers' degree of familiarity with the language, is expected to be sufficiently deviant to serve as an attention-drawing element, particularly if consumers are very familiar with English and when the use of English competes with pictorial material. In addition, characteristics like size and colour require little to no processing time whereas identifying a foreign language requires more processing, hindering initial attention.

Two eye-track experiments were carried out among 102 Dutch native speakers to test this empirically, manipulating the complexity of the visual part of the ad to see whether an effect of language change can compete with the visual parts of the ad. We also manipulated the familiarity with the language used to see whether processing speed (higher for familiar language) influences the effect of foreign language use. We used Dutch ads and replaced the Dutch slogan with an English or Italian one. We measured the attention-drawing capacity in terms of first and second fixations. In addition, readers' attitudes towards the product and the ad, and purchase intention were measured to examine whether English in advertising does have other advantageous effects compared to the native language.

The results showed no evidence for the attention-getting function of English or a less familiar foreign language in either of the conditions (visual complexity). Initial attention was mainly determined by the pictorial elements and the position of the ad on the page even for advertisements with a very simple design with only a picture of the product. The attitudes and purchase intention, however, changed with familiarity and comprehensibility of the language used. There were no differences between Dutch and English ads, however, the Italian ads were rated significantly less positive and consumers were less likely to buy the products than when they saw the ads that used English. In conclusion, the use of English is not able to draw viewers' attention and its use might even have a negative effect on attitudes and buying intention if consumers are not familiar with the language.

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References

- Ahn, J., & Ferle, C. L. (2008). Enhancing recall and recognition for brand names and body copy: A mixed-language approach. *Journal of Advertising*, 37(3), 107-117. <https://doi.org/10.2753/joa0091-3367370308>.
- Casado-Aranda, L. A., Sánchez-Fernández, J., & Ibáñez-Zapata, J. Á. (2023). Evaluating communication effectiveness through eye tracking: Benefits, state of the art, and unresolved questions. *International Journal of Business Communication*, 60(1), 24-61.
- Hornikx, J., & van Meurs, F. (2020). *Foreign languages in advertising: Linguistic and marketing perspectives*. Cham: Palgrave Macmillan. <https://doi.org/10.1007/978-3-030-31691-4>
- Lohse, G. L. (1997). Consumer eye movement patterns on Yellow Pages advertising. *Journal of Advertising*, 26, 61-73. doi:10.1080/00913367.1997.10673518
- Pieters, F. G. M., & Wedel, M. (2007). Goal control of visual attention to advertising: The Yabus implication. *Journal of Consumer Research*, 34, 224-233. doi:10.1086/519150

Language mobility and English: New perspectives and approaches

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Keywords: global Englishes, critical sociolinguistics, methodological pluralism, structuralism

Anglicism research, rooted in the structuralist tradition of contact linguistics, has long been concerned with the question of how English is used in different areas of the expanding circle (amongst others Onysko 2007, Fiedler 2022, Ruellot 2011, Furiassi 2010). This mostly involves studies with a focus on texts usually taken from mass media communication used to detect and identify anglicisms. In a world of accelerated globalisation, static concepts of language A (English) and B (e.g. German) in contact, however, are challenged by increased mobility of people and their truncated linguistic repertoires (Schaefer 2024, Canagarajah 2018, Blommaert 2010, Pennycook 2007). It is in these times that we need to not only rethink the concept of “anglicism” and its ontological stance but also how the lifeworlds of the actual language users change and adapt to these developments. In my presentation, I will introduce a new perspective on language mobility which combines the different perspectives of a sociolinguistics of mobility and contact linguistics. This allows us to not only rethink the linguistic concept of anglicism but also acknowledge the language worlds of the actual language users whose meaning making practices we too often analyse without taking into consideration the sociocultural environment in which these are situated and the assemblage of semiotic and material resources which are part of meaning making and additionally shape how, why and which anglicisms are used by their users. By giving examples from my monograph on the use of English on German radio (for which I analysed 60 hours of radio content and conducted 19 interviews with radio journalists) and my current research project *Community, Identity and Diversity in German Youth Radio* (CiDoRa; funded by the European Union) (for which I undertake 6 months of ethnographic fieldwork at a German youth radio station), I will therefore propose a new methodological approach to the study of mobile English resources. Furthermore, I will discuss possibilities for alternative data collection and analysis of anglicism use in media texts (such as semi-structured interviews with the actual language users, linguistic ethnography of meaning making practices and multimodal critical discourse analysis of media texts). The findings of my paper show that the use of English linguistic resources is deeply entangled with other semiotic and material resources and the sociocultural environment and that “anglicisms” should not be regarded as a linguistic category but a social and cultural practice.

References

- Blommaert, Jan (2010), *The Sociolinguistics of Globalization*, Cambridge: Cambridge University Press.
- Canagarajah, Suresh (2018), Translingual Practice as Spatial Repertoires: Expanding the Paradigm beyond Structuralist Orientations, *Applied Linguistics* 39(1), 31–54.
- Fiedler, Sabine (2022), “Mit dem Topping bin ich auch fein”–Anglicisms in a German TV cooking show, *Espaces Linguistiques* 4 (December).
- Furiassi, Cristiano (2010), *False Anglicisms in Italian*, Monza: Polimetrica.
- Onysko, Alexander (2007), *Anglicisms in German: Borrowing, Lexical Productivity, and Written Codeswitching*, Berlin: De Gruyter.
- Pennycook, Alastair (2007), *Global Englishes and Transcultural Flows*, Abingdon: Routledge.

Ruellot, Viviane (2011), English in French Print Advertising from 1999 to 2007, *World Englishes* 30(1), 5–20.

Schaefer, Sarah Josefine (2024), *New Perspectives on Language Mobility: English on German Radio*, London: Bloomsbury Academic.

Gamers, influencers and language contact: An empirical study of Anglicisms in Icelandic conversation

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Keywords: youth language, Anglicisms, Icelandic, language contact, talk-in-interaction

The paper presents an empirical study of the use of Anglicisms in Icelandic conversation. The aim of the study is to investigate the way popular culture shapes the vocabulary used by young Icelanders (cf. Fägersten 2024 on the Nordic languages and popular culture). The data comprises 4 hours and 30 minutes of recordings from two sets of data: 1) an online conversation between two fifteen-year-old boys playing a computer game (19,206 words), and 2) a conversation between two young women hosting a podcast on fashion, lifestyle and entertainment (15,282 words). The research questions are as follows: 1) What kind of Anglicisms occur in the data, i.e. what is the distribution between the parts-of-speech? 2) What interactional functions do these items have in the conversations? The study begins with brief overview of the distribution of Anglicisms in the data, but the main emphasis is on the qualitative analysis of segments of talk.

The study shows that there are some differences between the use of Anglicisms in the two sets of data. Anglicisms used by the boys playing the computer games are often connected to the game itself, e.g. words and phrases that appear on the screen or have occurred elsewhere in the context of the game (e.g. *flying motorcycle, mission*). Typically, these units are phonetically adapted to Icelandic, the matrix language. Around 26% of the Anglicisms consist of pragmatic items such as discourse particles, swearwords and address markers (e.g. *fokk* 'fuck', *yeah*).

Anglicisms in the podcast seem to be mainly connected to the construction of identity. The English units create connotations to television shows and international pop-culture. Often, the young women use Anglicisms that are prosodically marked with stretched sounds and staged American accent (e.g. *crazy*). Furthermore, syntactically organized utterances are common. Typically, these utterances function as assessments or closing comments that show the speakers' attitude to the topic of discussion (e.g. *haven't we all*).

Another topic of interest are the changes in the pronunciation of Anglicisms. In earlier studies of spoken Icelandic, researchers have shown that English borrowings typically adapt to the Icelandic phonetic system. The present study suggests that this is no longer the case. This is particularly clear in the podcast, in which 11.5% of all words are pronounced with an American accent (or at least as it is interpreted in the Icelandic context).

The comparison between the two sets of data shows that the use of Anglicisms is a complex question. The use may vary based on issues such as age and gender of the speakers, English fluency, and the nature of the conversation (e.g. private vs. entertaining an audience).

References

Fägersten, Kristy Beers (2024), Anglicization of the languages of the Nordic countries, in E Peterson and K B Fägersten (eds), (2024), *English in the Nordic Countries. Connections, tensions and everyday realities*, London: Routledge, 65-83.

WS2 Construction
Grammar meets
Sociolinguistics

Past simple vs. present perfect: Modelling constructional variation and change across apparent time, region and mode

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Keywords: perfect/past alternation, construction grammar, World Englishes, variation, change

In English, a (simple) past tense (SP) or present perfect (PP) can refer to events in the past. The PP is more frequent in British than in American English (Elsness 2009, Hundt & Smith 2009), to the extent that American *Did you eat?* vs. British *Have you eaten?* has been considered a (currently relatively stable) transatlantic shibboleth (Biber et al. 1999: 463, Crystal ⁷2002: 97).

While an ever-growing body of literature has investigated longitudinal developments of the SP:PP alternation (e.g. Elsness 1997, 2014; Yao 2024), provided corpus evidence on its use in varieties of English as a first, institutionalised second, and foreign language (e.g. Fuchs 2016, Yao & Collins 2013), and studied its distribution across different written and spoken registers (e.g. Biber et al. 1999, Bao et al. 2018), investigation of sociolinguistic variables is rare (cf. Davydova 2011, Franco & Tagliamonte 2020). Moreover, to the best of our knowledge, Franco & Tagliamonte (2020: 800) are the first to discuss the English PP in connection with construction grammar (cf. Zenner et al. 2018 for Dutch).

We will use available meta-data for the Australian, Canadian, Irish, New Zealand and British components of the *International Corpus of English* to model the SP:PP alternation. As independent variables, we will include AGE and temporal adverbials, with participant ID and the main verb as random effects. We predict that there will be stable variation/lack of variation across apparent-time in Canadian, Irish and British English, whereas Australian and New Zealand English will show a growing tendency towards greater use of the preterite overall and with perfect-friendly adverbials (Werner 2013) in particular, thus drifting towards a more 'American' construct-i-con. Evidence from apparent-time for the SP:PP alternation will be compared with variation across speech and writing, which has often been taken as a proxy for ongoing change on the assumption that speech tends to be more innovative than the written mode.

References

- Bao, Chenyao, Xiaowen Zhang, Yunhua Qu & Zhiwei Feng (2018), American English perfect construction across registers. *Journal of Quantitative Linguistics* 25(4), 314-341.
- Biber, Douglas, Stig Johansson, Geoffrey Leech, Susan Conrad & Edward Finegan (1999); *Longman Grammar of Spoken and Written English*. Harlow: Pearson Education.
- Crystal, David (⁷2002); *Rediscover Grammar*. London: Longman.
- Davydova, Julia (2011), *The Present Perfect in Non-Native Englishes*. Berlin: De Gruyter.
- Franco, Karlien & Sali A. Tagliamonte (2022). The most stable it's ever been: the preterit/present perfect alternation in spoken Ontario English. *English Language & Linguistics* 26(4), 779-806.
- Fuchs, Robert (2016), The frequency of the present perfect in varieties of English around the world. In Valentin Werner, Valentin, Elena Seoane & Cristina Suarez-Gómez, eds. *Re-assessing the Present Perfect*. Berlin: De Gruyter, 223-258.
- Elsness, Johan (1997), *The Perfect and the Preterite in Contemporary and Earlier English*. Berlin: de Gruyter.

- Elsness, Johan (2009), The present perfect and the preterite. In Günter Rohdenburg & Julia Schlüter, eds. *One Language, Two Grammars? Differences between British and American English*. Cambridge: Cambridge University Press, 228-245.
- Elsness, Johan (2014), The present perfect and the preterite in Late Modern and Contemporary English. A longitudinal look. In Kristin Davids, Caroline Gentens, Lobke Ghesquière and Lieven Vandelanotte, eds. *Corpus Interrogation and Grammatical Patterns*. Amsterdam: Benjamins, 81-104.
- Hundt, Marianne and Nicholas Smith (2009), The present perfect in British and American English: Has there been any change, recently? *ICAME Journal* 33: 45-63.
- Werner, Valentin (2013), Temporal adverbials and the present perfect/past tense alternation. *English World-Wide* 34(2), 202-240.
- Yao, Xinyue (2024), *The Present Perfect and the Preterite in Late Modern and Contemporary English*. Amsterdam: Benjamins.
- Yao, Xinyue & Peter Collins (2013), Functional variation in the English present perfect: a cross-varietal study. In Gisle Anderson and Kristin Bech, eds. 2013. *English Corpus Linguistics: Variation in Time, Space and Genre*. Amsterdam: Rodopi, 91-111.
- Zenner, Eline, Kris Heylen & Freek Van de Velde (2018), Most borrowable construction ever! A large-scale approach to contact-induced pragmatic change. *Journal of Pragmatics* 133, 134–49.

Complex comparative correlatives across time and registers: A corpus-based study on early modern German

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German comparative correlative (CC) constructions (*je X-er desto Y-er* ‘the X-er the Y-er’) have been studied extensively from a Construction Grammar perspective (see e.g. Hoffmann 2018, Tharincharoen 2022, 2023a,b). However, most empirical diachronic work so far has focused on CCs consisting of two clauses, which means that more complex CCs were disregarded. The goal of the present study is to fill this gap, and to test the hypothesis that sociolinguistic variables can account for the use of more complex CCs. Apart from a) multi-clause structure, two other features arguably contribute to the complexity of CCs: b) the non-iconic clause order apodosis > protasis (see Hoffmann 2019); c) the use of a comparative phrase that is not an AdjP (the default option that makes up for the bulk of all attestations) but instead an NP or even a PP. (1) gives an example for all three parameters.

- (1) *Dero Ursprung (...) zu untersuchen [desto mehr] comparative phrase 2, AdjP für die Mühe lohnet, [je größere Influence] comparative phrase 1a, NP dieselbige gehabt, und [mit je größerem Eifer] comparative phrase 1b, PP die Souveränität angefochten (...)*
wird
‘... whose origin is all the more rewarding to investigate the bigger the influence is that it has had, and the bigger the zeal is with which the sovereignty is refuted’ (Pufendorf, *Historie der Vornehmsten Reiche und Staaten*, 1682, DTA)

To investigate the development of complex CCs in early modern German, a subset of the German Text Archive (DTA) is used that is balanced for 50-year time slices from 1600 to 1900 and three genres. The data were coded for the parameters mentioned above. The results show that the use of complex CCs becomes more prevalent over time in scientific texts and “functional literature” (*Gebrauchsliteratur*), e.g. sermons or essays. In the third text type, fiction, a tendency towards more complex CCs can be observed as well, but at a considerably lower level. This indicates that complex CCs are a register feature of conceptually more ‘written’ discourse in the sense of Koch & Oesterreicher (1985). Across text types, complex CCs are particularly prevalent in the 18th century and tend to exhibit slightly less non-canonical features in the 19th century again. This indicates that complex CCs were gradually established as register features, but their use reached its peak in the 18th century and was reduced in favor of more canonical structures that are arguably easier to process.

References

- Hoffmann, Thomas. 2018. Comparing Comparative Correlatives: The German vs. English construction network. In Hans C. Boas & Alexander Ziem (eds.), *Constructional Approaches to Syntactic Structures in German*, 181–203. De Gruyter. <https://doi.org/10.1515/9783110457155-005>.
- Hoffmann, Thomas. 2019. *English Comparative Correlatives: Diachronic and Synchronic Variation at the Lexicon-Syntax Interface*. Cambridge University Press. <https://doi.org/10.1017/9781108569859>.
- Koch, Peter & Wulf Oesterreicher. 1985. Sprache der Nähe - Sprache der Distanz: Mündlichkeit und Schriftlichkeit im Spannungsfeld von Sprachtheorie und Sprachgeschichte. *Romanistisches Jahrbuch* 36. 15–43.
- Tharincharoen, Jirayu. 2022. Komparative Korrelativkonstruktionen und ihre Variation in (über-)regionalen Zeitungen. *Germanistische Werkstatt* (11). 229–243. <https://doi.org/10.25167/pg.4684>.
- Tharincharoen, Jirayu. 2023a. *Komparative Korrelativkonstruktionen im Deutschen: Wandel und Variation aus konstruktionsgrammatischer Sicht*. PhD thesis, University of Erlangen.
- Tharincharoen, Jirayu. 2023b. Der syntaktische Wandel der mittel- und niederdeutschen je-desto-Konstruktion. In Augustin Speyer & Jenny Diener (eds.), *Syntax aus Saarbrücker Sicht 5: Beiträge der SaRDs-Tagung zur Dialektsyntax*, 209–230. Stuttgart: Franz Steiner Verlag. <https://doi.org/10.25162/9783515135139>.

Honorific registers in 16th to 18th century German

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In the Baroque era and beyond, communicating at court and addressing noblemen or superiors required a highly conventionalized interaction ritual that had emerged under French influence (Stauffer 2018). Unlike in contemporary German, this honorific system was not limited to linguistic forms such as pronouns referring to the addressee. Different lexical and syntactic means were conventionally employed in this honorific register and had a distinctive function even for the speaker (Beetz 1990: 200-222).

In my talk, I will examine this honorific register from a constructional perspective, combining two methodological approaches in order to explore different order indexicalities (Silverstein 2003). First, there is an extensive tradition of language guides, so-called compliment books ("Komplimentierbücher"), that contain detailed instructions on how to conduct oneself and, particularly, communicate at court (Hesselink 2016). These books offer insights into contemporary metalinguistic discourses, providing valuable clues about social enregisterment (Agha 2007: 81). According to Silverstein (2003), such metalinguistic discourses are indicative of 2nd order indexicalization. That means the socio-symbolic meaning of a form belongs to the linguistic knowledge of the speakers and the form may be used to create a context, for example, to mark group affiliation (Spitzmüller 2022: 259-260).

Second, I will present a corpus study conducted in a large corpus containing texts from 16th to 18th century (Deutsches Textarchiv, DTA) to explore whether what has been described in the language guides can actually be found in language use and whether there are linguistic means that go beyond. The study of language use is suitable for measuring first order indexicalization in the spirit of Silverstein (2003): A construction occurs above chance in a linguistic context or is used by certain communities because those communities tend to perform specific speech acts or often express specific stances.

Using log-likelihood-measures, lexemes cooccurring above chance with honorific nominal address forms such as *Euer hochfürstlich Gnaden* 'Your high Princely Grace' were identified. The study shows that words and constructions belonging to different categories (e.g., verbs, adjectives, multi-word constructions) are highly attracted to those contexts. The honorific constructions are situated on different levels within the constructional network (Diessel 2019; Sommer/Smirnova 2020; Ungerer forthcoming): There are highly specific lexical constructions such as the adjective *untertänig* 'submissive', which is frequently used for self-deprecation, existing alongside formulaic patterns with variable slots. For example, the verbal pattern containing the prefix *er-* co-occurs with honorific forms of address above chance (e.g., *ersuchen* 'to request', *erweisen* 'to show', *erteilen* 'to grant'). Also, honorific address forms themselves may be considered as highly conventionalized constructions with an intermediate degree of schematicity, which serve as positive politeness strategies. They usually consist of a possessive pronoun followed by an adjective referring to the hierarchical status of the referent and an abstract noun denoting positive properties of the addressee (*Euer fürstlich Gnaden* 'Your high Princely Grace', *Euer hochfürstlich Durchlaucht* 'Your Serene Highness'). The high cooccurrence frequency of those different constructions suggests that they are linked within the constructional network through their socio-symbolic function.

References

- Agha, Asif (2007): *Language and Social Relations*. Cambridge: Cambridge University Press (Studies in the Social and Cultural Foundations of Language 24).
- Beetz, Manfred (1990): *Frühmoderne Höflichkeit. Komplimentierkunst und Gesellschaftsrituale im altdeutschen Sprachraum*. Stuttgart: Metzler.
- Diessel, Holger (2019): *The grammar network. How linguistic structure is shaped by language use*. Cambridge: Cambridge University Press.
- DTA= Deutsches Textarchiv (<https://www.deutschestextarchiv.de>)
- Hesselink, Cathrin (2016): *Das Komplimentierbuch. Entwicklung und Kontexte einer vermittelnden Gattung*. Münster: MV-Verlag.
- Silverstein, Michael (2003): Indexical order and the dialectics of sociolinguistic life. In: *Language & Communication* 23/3–4, 193–229.
- Sommerer, Lotte & Elene Smirnova (2020): Introduction. The nature of the node and the network – open questions in diachronic construction grammar. In: Lotte Sommerer & Elene Smirnova (eds.), *Nodes and networks in diachronic construction grammar*. Amsterdam & Philadelphia: John Benjamins, 1–42.
- Spitzmüller, Jürgen (2022): *Soziolinguistik: eine Einführung*. Berlin: J.B. Metzler.
- Stauffer, Isabelle (2018): *Verführung zur Galanterie. Benehmen, Körperlichkeit und Gefühlsinszenierungen im literarischen Kulturtransfer 1664–1772*. Wiesbaden: Harrassowitz Verlag.
- Ungerer, Tobias (Forthcoming): Vertical and horizontal links in constructional networks: Two sides of the same coin? To appear in: *Constructions and Frames*. <https://tungerer.github.io/files/Ungerer-forthcVertical-and-horizontal-links.pdf> (accessed October, 14th 2023).

Effects of social environment on evaluations of productive/creative instantiations of grammatical patterns

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Keywords: syntactic productivity, linguistic creativity, individual differences, sociolinguistic variation, acceptability rating experiment

Focusing on the interplay between intralinguistic and extralinguistic determinants of constructional productivity, this paper touches upon two promising avenues for research in Construction Grammar (CxG; Ungerer & Hartmann 2023): linguistic creativity and individual differences. While recent work in CxG strongly relates productivity to linguistic creativity (Hoffmann 2018, 2019; Bergs 2019), sources of individual differences in linguistic creativity remain largely unexplored as potential determinants of constructional productivity. This is surprising in view of the pervasive individual differences in grammatical knowledge and grammatical representations attested in work by e.g., Dąbrowska (2012, 2018, 2019), which strongly suggest that different speakers will draw on different generalisations when extending constructions creatively, too.

In this presentation, we report on the results of an online acceptability rating experiment with 700 native speakers of Dutch that set out to measure individual variation in evaluations of productive/creative instantiations of two argument structure constructions, namely the *weg*-pattern in (1) (see, e.g., Verhagen 2003) and the *krijgen*-passive in (2) (see, e.g., Colleman 2015).

- (1) Hij baande/zocht/toeterde/elleboogde zich een weg door de menigte
'He made/searched/honked/elbowed his way through the crowd.'
- (2) Els kreeg een kaartje aangeboden/opgeplakt/geleverd/toevertrouwd.
'Els was presented/stuck on/delivered/entrusted a card.' (lit. 'E. got the card presented/...')

Mixed ordinal regression analyses reveal that participants' ratings are influenced by more 'traditional' sociolinguistic variables, such as age, gender, and educational background. In this talk, we further scrutinize sociolinguistic variation and explore the potential effects of speakers' social environment on their rating behaviour, as speakers tend to adjust their language use and norms to "where they live, who they are surrounded by, and who they wish to emulate" (Tagliamonte 2011: 36). For instance, while previous analyses of the same dataset indicate general differences between Belgian and Netherlandic speakers of Dutch in the degree in which they sanction certain "creative" uses, we explore geographic variation in more detail and investigate whether greater expected "linguistic security" (Preston 2013) of speakers from linguistically dominant sub-regions impacts their ratings (distinguishing between linguistically dominant sub-regions on the one hand and peripheral regions on the other, both within The Netherlands and within Dutch-speaking Belgium). Furthermore, we examine whether the suggested expansion of the constructional network stimulated by a higher exposure to different varieties (Hoffmann 2019) affects participants' ratings by considering degrees of linguistic mobility/language contact (Milroy 2002; Onysko 2019), exploring the effects of both greater linguistic mobility *within* the Dutch language area (communicative radius) and degree of exposure to (related) foreign languages (i.e., multilingualism; additionally, see Kharkurin 2020 on the relationship between multilingualism and creativity). Finally, location and mobility can also be defined from a social

perspective. In this respect, we consider potential effects of upward social mobility (Chambers 2008; Labov 2006) by comparing the educational backgrounds of participants in the experiment with the reported educational backgrounds of their parents. Taking into account these various parameters inspired by recent sociolinguistic research will allow us to paint a finer-grained picture of the social profiles of speakers relatively open or, conversely, relatively averse to “creative” uses of grammatical constructions.

References

- Bergs, Alexander. 2019. What, if anything, is linguistic creativity?. *Gestalt Theory* 41(2). 173-183.
- Chambers, James K. 2008. *Sociolinguistic Theory*. 3rd ed. Oxford: Wiley-Blackwell.
- Colleman, Timothy. 2015. Constructionalization and post-constructionalization: The constructional semantics of the Dutch *krijgen*-passive in a diachronic perspective. In Jóhanna Barðdal, Elena Smirnova, Lotte Sommerer & Spike Gildea (ed.), *Diachronic Construction Grammar*, 213-255. Amsterdam/Philadelphia: John Benjamins.
- Dałbrowska, Ewa. 2012. Different speakers, different grammars: Individual differences in native language attainment. *Linguistic Approaches to Bilingualism* 2(3). 219-253.
- Dałbrowska, Ewa. 2018. Experience, aptitude and individual differences in native language ultimate attainment. *Cognition* 178. 222-235.
- Dałbrowska, Ewa. 2019. Individual differences in grammatical knowledge. In Ewa Dałbrowska & Dagmar Divjak (ed.), *Cognitive Linguistics – key topics*, 231-250. Berlin/Boston: De Gruyter Mouton.
- Hoffmann, Thomas. 2018. Creativity and construction grammar: Cognitive and psychological issues. *Zeitschrift für Anglistik und Amerikanistik* 66(3). 259-276.
- Hoffmann, Thomas. 2019. Language and creativity: a Construction Grammar approach to linguistic creativity. *Linguistics Vanguard* 5(1). 20190019.
- Kharkhurin, Anatoliy V. 2012. *Multilingualism and Creativity*. Bristol, Blue Ridge Summit: Multilingual Matters.
- Labov, William. 2006. *The social stratification of English in New York city*. Cambridge University Press.
- Milroy, Lesley. 2003. Introduction: Mobility, contact and language change – Working with contemporary speech communities. *Journal of Sociolinguistics* 6(1). 3-15.
- Onysko, Alexander. 2019. Reconceptualizing language contact phenomena as cognitive processes. In Eline Zenner, Ad Backus & Esme Winter-Froemel (ed.), *Cognitive contact linguistics. Placing usage, meaning and mind at the core of contact-induced variation and change*, 23-50. Berlin/Boston: De Gruyter/Mouton
- Preston, Dennis R. 2014. Linguistic insecurity forty years later. *Journal of English Linguistics* 41(4). 304-331.
- Tagliamonte, Sali A. 2011. *Variationist Sociolinguistics: change, observation, interpretation*. Wiley & Blackwell.
- Ungerer, Tobias & Stefan Hartmann. 2023. *Constructionist Approaches: Past, Present, Future* (Elements in Construction Grammar). Cambridge: Cambridge University Press.
- Verhagen, Arie. 2003. Hoe het Nederlands zich een eigen weg baant. Vergelijkende en historische observaties vanuit een constructie-perspectief. *Nederlandse taalkunde* 8. 328-346.

The social meaning of constructions: Double modals on British Twitter

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Keywords : Construction Grammar ; sociolinguistics ; cognitive linguistics ; corpus linguistics ; British English

In this paper, I argue that an explicit incorporation of the notion of social meaning in Construction Grammar (Hoffmann 2022) is a good spur for a *social turn* in this Cognitive Linguistic theory (Geeraerts 2016; Morin et al. 2024). I start by unpacking some key theoretical arguments in favour of this claim (i), and to illustrate them I report a computational sociolinguistic study of double modal constructions on British Twitter (ii).

(i) considers how social information might be delineated in a model of constructional meaning. In particular, what is the precise relationship of social meaning with semantic and pragmatic meaning? I argue that the case of social meaning calls for more fine-grained models of the function of constructions than previously considered (Leclercq 2020). Based on Culpeper (2021) and Morin (2023), I propose a tripartite distinction of pragmatic meaning, with social meaning comprising the meso- and macro-levels of *interactional* and *socio-cultural* meaning. Overall, the integration of social meaning invites us to revisit models of the meaning of constructions, contributing to the ‘metatheoretical’ stage currently undergone by Construction Grammar research (Ungerer & Hartmann 2023; Cappelle 2024). It improves the explanatory adequacy and predictive power of the theory by highlighting that social meaning is a ubiquitous, though previously underappreciated source of functional distinction. For instance, it enables us to model synonymy avoidance in language more comprehensively, such as in the form of the *Principle of No Equivalence* (Leclercq & Morin 2023).

(ii) illustrates these points with an in-depth case study of double modals in dialects of British and American English (examples below from naturalistic Tweets). (Morin et al. 2024)

- *I might could go for some Taco Bell today.* (8 July 2014, Hickman County, Tennessee)
- *i'll can come see ya tomorrow night for a bit if you're no away galavanting* 🍷 (14 September 2014, South Ayrshire, Scotland)

I argue that double modals are low-frequency, though highly marked constructions that would elude the purview of Construction Grammar without the modelling of intersectional social meaning. The study relies on a corpus-based analysis of double modals in a large corpus of geolocated Twitter posts. It includes presenting an inventory of observed double modals, the network structure that they exhibit (using eigenvector network graphs and Correspondence Analysis), as well as maps showing on the one hand, the regional clustering of the forms in the Scottish Borders and on the other, their low-frequency use across the United Kingdom. These results combined with qualitative analysis of Tweets suggests that defining double modals as grammatical constructions requires us to delimitate aspects of their social meaning so as to offset their low frequency or the pre-emptive force of standard alternatives (e.g. *might be able to*), including register and region.

I conclude the paper by arguing that studying regional variation in language use based on large corpora of informal natural language is a promising approach for the future intersection of Construction Grammar and sociolinguistics. Although the study above only relies on a small dialect feature space, I will briefly mention the possibilities of self-supervised Computational Construction Grammar methods (Dunn 2024) to study the social meaning of constructions at scale and across the whole constructicon.

References

- Cappelle, Bert (2024), *Can Construction Grammar Be Proven Wrong?* Cambridge: Cambridge University Press.
- Culpeper, Jonathan (2021), Sociopragmatics: Roots and definition. In M. Haugh, D. Kádár, and M. Terkoufari (eds) *The Cambridge Handbook of Sociopragmatics*, Cambridge: Cambridge University Press, 15–29.
- Dunn, Jonathan (2024), *Computational Construction Grammar*, Cambridge: Cambridge University Press.
- Geeraerts, Dirk (2016), The Sociosemiotic Commitment. *Cognitive Linguistics* 27(4), 527–42.
- Gries, Stefan (2013), Data in Construction Grammar. In T. Hoffmann, and G. Trousdale (eds), *The Oxford Handbook of Construction Grammar*, Oxford: Oxford University Press, 93–110.
- Grieve, J., D. Hovy, D. Jurgens, T. Kendall, D. Nguyen, J. Stanford & M. Sumner (eds), (2023), *Computational Sociolinguistics*, Lausanne: Frontiers Media SA.
- Hoffmann, Thomas (2022), *Construction Grammar: The Structure of English*. Cambridge: Cambridge University Press.
- Leclercq, Benoît (2020), Semantics and pragmatics in Construction Grammar. *Belgian Journal of Linguistics* 34, 225–34.
- Leclercq, Benoît & Cameron Morin (2023), No equivalence: a new principle of no synonymy. *Constructions* 15, 1–16.
- Morin, Cameron (2023), *Social meaning in Construction Grammar: double modals on British Twitter*, PhD Thesis, Université Paris-Cité.
- Morin, Cameron, Guillaume Desagulier & Jack Grieve (2024), A social turn for Construction Grammar: double modals in dialects of English. *English Language and Linguistics*, 1–29.
- Ungerer, Tobias & Stefan Hartmann (2023), *Constructionist Approaches: Past, Present, Future*, Cambridge: Cambridge University press.

Recipient passives in the Portuguese of Mozambique: Looking for the sociolinguistic determinants of an emerging construction

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Keywords: pluricentricity of Portuguese; Recipient passives; constructionalization; social variables; language contact

Recipient passives (i.e., passives formed with the recipient/indirect object as subject, see [1] below) have been consistently singled out as a new defining feature of the variety of Portuguese spoken in Mozambique (Firmino 2021, 2024). They have furthermore been regarded as linguistic evidence for the ongoing nativization of Mozambican Portuguese (MP), understood as the process by which postcolonial varieties of European languages gradually acquire new forms, uses and functions that are specific to the context in which they develop (Schneider 2007). Considering the highly multilingual character of the Mozambican society, language contact with local Bantu languages have been shown to play a fundamental role in the emergence of such passives (Firmino 2021: 185).

[1] *A Maria foi oferecida um presente.* (not conventional in standard Portuguese)
'Mary was offered a present.'

While recent studies have demonstrated the availability and stability of these novel constructions in MP (Nhathuve 2022; Mevis & Soares da Silva 2023; Firmino 2024), opinions still diverge as to the productivity and regional and social distribution of Recipient passives among the Mozambican population. The present study, which builds upon previous work developed as part of ongoing research, therefore seeks to approach Recipient passives under a more sociolinguistic angle, relying both on written and spoken data. More importantly, the main aim is to compare results obtained from a corpus-based analysis based on the *corpus do português* (Davies 2016) with new data gathered through fieldwork in Mozambique. Overall, three research questions will be addressed: (i) how strongly is the construction socially conditioned, and to what extent has the construction grown beyond social determinants to become a characteristic of MP as a whole? (ii) which social variables does the construction prove most sensitive to? and (iii) how do social variables interact with linguistic ones in the reconfiguration of the constructional network, especially those known to play a role in passive constructions such as topicality and discursive salience, differences in construal, affectedness, etc.?

The data under analysis is composed of a mix of spontaneous language production (interviews) and experimental design (questionnaires). An experimental study was carried out with 4 groups of approximately 40 students from different Mozambican universities, with the aim to assess the acceptability of the Recipient passive construction. The participants were controlled for variables such as age, sex, region of origin and mother tongue. It will also be discussed how results obtained following different empirical methodologies can complement each other. More generally, this study seeks to document in further detail the linguistic evolution of MP towards increasing degrees of endonormative stabilization (Brunner & Hoffman 2022).

References

- Brunner, T. & Hoffmann, T. (2022). Construction Grammar meets the Dynamic Model. In Ngefac, A., Wolf, H.-G. & Hoffmann, T. (eds.) *World Englishes and Creole Languages Today*. Vol. 1: The Schneiderian Thinking and Beyond. München: Lincom, 25–38.
- Davies, Mark (2016). *Corpus do Português: Web/Dialects. One billion words; 4 countries*. <http://www.corpusdoportugues.org/web-dial/>.
- Firmino, Gregório. (2021). Ascensão de uma norma endógena do português em Moçambique: desafios e perspectivas. *Gragoatá*, 26(54). 163–192.
- Firmino, G. (2024). Mozambique. In Reutner, U. (ed.), *Manual of Romance Languages in Africa*. Berlin, Boston: De Gruyter. 809–824.
- Mevis, A. & Soares da Silva, A. (2023). Exploring the productivity and systematicity of Recipient passives in Mozambican Portuguese. *Soletras*, 45(1). 190–222.
- Nhatuve, D. (2022). Passivas analíticas escritas por falantes do português de Moçambique. *Revista Investigações*, 35(2), 1–34.
- Schneider, E. (2007). *Postcolonial English: Varieties around the world*. Cambridge: Cambridge University Press.

Constructions and interpersonal relationships in Japanese: How they are inseparable

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Keywords: Japanese, Relational Morphology, Interpersonal relationship, Honorifics, Role language

To answer the question what kind of sociolinguistic knowledge should be integrated into constructional templates, this talk claims that in languages with obligatory linguistic marking of interpersonal relationships (IRs), like Japanese, the IR information needs to be accommodated within constructions. The simple English sentence *today is Saturday* corresponds to various forms in Japanese, as in (1), each marking different social context of the utterance (Hirose 2015:128):

- (1) kyoo-wa doyoobi-da/da-yo/desu/degozaimasu/daze/...
 today-TOP Satudary-COP/COP-I.tell.you/COP.Polite/COP.Super-Polite/COP.Vulgar/...
 ‘Today is Saturday’

(Hirose 2015:128, with modifications)

The unmarked copula *-da* is rarely used in face-to-face communication, because it fails to indicate the relationship of the interlocutors. English may mark contextual differences by adding vocatives such as *Madam, dude*, etc. (ibid.:130). However, they are optional; the unmarked sentence may be used regardless of addressee. According to Hirose (2015), this cross-linguistic difference is explained by different unification patterns of the three tiers of language use (the situation construal, situation report, and interpersonal relationship tiers) and different patterns in egocentricity across the languages. English is a public-self-centered language, in which the situation construal and situation report tiers in language use are unified, while in Japanese as a private-self-centered language, the situation report tier is unified with the interpersonal relationship tier. As such, linguistic expressions in Japanese should be learned—and stored as constructions—inseparably with the knowledge of IR in language use (e.g., social status, closeness). This talk argues that the variations in (1), for instance, should be represented in the Relational Morphology templates with the register tier (Jackendoff and Audring 2020:246–248), as in (2), showing that a wrong choice makes the utterances unidiomatic.

(2)	<i>da</i>	<i>desu</i>	<i>da-yo</i>
Semantics	PREDICATION ₁	PREDICATION ₂	PREDICATION ₁ +NEW INFO ₃
Syntax	copula ₁	copula ₂	copula ₁ +sentence final particle ₃
Phonology	/da/ ₁	/desu/ ₂	/da ₁ yo _{3/4}
Register/IR	-	polite ₂	close ₄

However, to characterize non-native speakers of Japanese, the “unidiomatic” expressions may be intentionally used. This fact is discussed in relation to *yakuwarigo* ‘role language’, the term coined by Kinsui (2003) to refer to speech styles associated stereotypically with specific character types (age, gender, social class, etc.). Sentence (3), for example, is a Japanese translation of a man from Australia speaking in English to answer an interview in a Japanese TV program about his first visit to Japan in 6 years. In (3), the unmarked copula *-da* is used, although native speakers of Japanese would use the polite form *-desu* instead.

(3) 1998-nen kara 2017-nen made sunde-ita-n-da.

1998-year from 2017-year to live-SATE-NMLZ-COP

‘It is that I lived (in Japan) from 1998 to 2017’

https://www.youtube.com/watch?v=b_3P7jGXvJE_ (with modification)

Being dubbed and subtitled with the Japanese sentence in (3), the videoclip gives an impression as if the Australian interviewee utters this unidiomatic Japanese sentence. Through the observation of such Japanese TV programs, I argue that this kind of dubbing/subtitling of translation is occasionally used to make the dubbed/subtitled Japanese sound non-native. As expressions unified with IRs are characteristic to Japanese, associating the unidiomatic variation of Japanese with the figure of non-Japanese speakers may reinforce a stereotypical view of them: they do not have the knowledge of constructions with the IR information, which proficient speakers of Japanese have.

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References

- Hirose, Yukio (2015), An overview of the three-tier model of language use, *English Linguistics* 32(1)120–138. https://doi.org/10.9793/elsj.32.1_120
- Jackendoff, Ray and Jenny Auding (2020), *The Texture of the Lexicon: Relational Morphology and the Parallel Architecture*, Oxford: Oxford University Press.
- Kinsui, Satoshi (2003), *Vaacharu Nihongo: Yakuwarigo no Nazo* (Virtual Japanese: Mystery of Role Language), Tokyo: Iwanami.

Logical, expressive, and social meanings of Camuno ‘do’-support questions, and how politeness can drive grammaticalization

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Keywords: do-support, conventional presupposition, conventional implicature, conversational implicature, politeness

Discourse, which is typically driven by interpersonal or social factors, has been relatively understudied in construction grammar. An important exception is Traugott (2022). However, while Traugott focuses on grammatical constructionalization of discourse structuring markers, interpersonal and social variables may play a key role. Here we consider the interrogative ‘do’-support construction in the Camuno dialects of Val Camonica, northern Italy. New research suggests that it functions as an indirect question and is intrinsically more polite.

In this construction, a finite verb *fa* ‘do’ with subject enclitic directly supports an infinitival lexical verb (1a). As originally described by Benincà & Poletto (2004) from Monno in Upper Val Camonica, the construction is obligatory with almost all verbs except ‘have’ and ‘be’. In a recent investigation of its properties over a 45km stretch of the valley and dataset of over 15,000 new examples, Swinburne (2021, 2024a,b,c) found that in most dialects the construction is optional, co-occurring with a form based on the main verb only (1b).

- (1) a. Fe-t nà a Milà ? (*fa*-support: FS)
do.PRS.2SG–SCL.2SG go.INF to Milan
- b. Ne-t a Milà?
go. PRS.2SG–SCL.2SG to Milan
‘Do you go / Are you going to Milan?’

Quantitative analysis using an elicitation experiment (10,000 examples), where informants rephrased a declarative to the appropriate interrogative form, revealed that in optional-FS dialects, FS is much more common with agentive-subject, activity verbs; less so with theme-subject, change-of-state verbs; and least with experiencer-subject, stative verbs. This makes sense if the original active transitive meaning of *fa* ‘do’ still persists because it is then sharing a subject with a semantically similar verb. Comparing dialects of adjacent communities, a pattern of grammaticalization emerges. Going up the valley towards areas of increasing isolation, the meaning of *fa* ‘do’ becomes increasingly bleached. The question asked is what drives the grammaticalization process.

Critical to this are the ‘special’ meanings attributed to FS by native speakers and formally documented in a separate dataset of 129 minimal pairs. The consistency of these special meanings throughout the valley indicates that the various dialects are at different stages of a single coherent grammaticalization process. The meanings can be divided into three types: ‘logical’, ‘expressive’ (both entailments), and ‘social’ (context-dependent). The logical meanings (which include answer presupposition) provide evidence for a biclausal syntactic structure, with a lexical *fa* ‘do’ supporting a propositional clause. Expressive meanings include: subjectivity, empathy, and conversational engagement. Following Potts (2005), both conventional presuppositions and conventional implicatures are present. The main social meaning is politeness, a common conversational implicature of an indirect question (Brown & Levinson 1987).

The secondary meanings have been incorporated during grammaticalization but the primary meanings remain. Thus with FS, the speaker is making an educated guess of the likely answer while leaving open the possibility of being wrong, and also being polite. In the small, tight-knit, isolated communities of Val Camonica, showing politeness to neighbours would be favoured as it is essential to long-term community cohesion. It is therefore the politeness meaning which has likely driven the grammaticalization.

References

- Benincà, Paola and Cecilia Poletto. 2004. A case of do-support in Romance. *Natural Language & Linguistic Theory* 22(1), 51–94.
- Brown, Penelope, and Stephen C. Levinson. 1987. *Politeness: Some universals in language usage*. Cambridge university press.
- Potts, Christopher. 2005. *The logic of conventional implicatures*. Oxford: Oxford University Press.
- Traugott, Elizabeth Closs. 2022. *Discourse Structuring Markers in English: A historical constructionalist perspective on pragmatics*. John Benjamins.
- Swinburne, Nicola. *The grammaticalization of do-support in the northern Italian Camuno dialect*. PhD Thesis, University of Oxford.
- Swinburne, Nicola. 2024a. The grammaticalization and grammatical meaning of a ‘do’ support verb in the northern Italian Camuno dialect. *Probus*, to appear.
- Swinburne, Nicola. 2024b. A semantically rich ‘do’-support verb in the Camuno dialect of northern Italy. *Transactions of the Philological Society*, to appear.
- Swinburne, Nicola. 2024c. Expressive meanings and social applications of ‘do’-support questions in Camuno. *Journal of Pragmatics*, accepted subject to satisfactory revision.

Historical sociolinguistics meets constructional change: Gender and the way-construction in the *Corpus of Historical American English*

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Keywords: historical sociolinguistics, language change, productivity, type frequency, distributional semantics

This paper combines historical sociolinguistics with diachronic construction grammar, both of which typically involve corpus-based methods. Traditionally, the corpora used in historical sociolinguistics have been small and carefully compiled, with meticulously collected social metadata (e.g. Nevalainen and Raumolin-Brunberg 1996). However, the small size of the corpora has often precluded the study of low frequency constructions. In recent years, historical datasets available for corpus-linguistic research have increased in size, and scholars have begun to realize the potential of enriching large historical corpora with social metadata. Öhman et al. (2019) added gender metadata to the 200-million-word fiction section of the *Corpus of Historical American English* (COHA) based on the authors' first names, gendered name lists and machine learning approaches. We argue that such resources provide fertile ground for combining sociolinguistic and constructional approaches (cf. Säily and Vartiainen forthcoming). To demonstrate this, we use the enriched version of COHA to analyse the role of gender in the development of the way-construction, e.g. *She pushed her way into the pub* (Perek 2018).

More specifically, we study changes in the productivity of the construction, in terms of type frequencies (using the *types3* tool, <https://jukkasuomela.fi/types3/>) and semantics (building upon Hilpert & Perek 2022). Productivity has been studied in both historical sociolinguistics (Säily 2014) and diachronic construction grammar, which regards it as a key component of constructional change (e.g. Hilpert 2013), but research combining the two fields is only beginning to emerge.

The study of productivity, however, is methodologically challenging in this research context. Diachronic corpora are typically imbalanced in size across historical periods, and women's language is often under-represented in them. Since types do not vary linearly with sample size, there is no simple way to reliably measure variation in types both over time and between genders. To address this issue, *types3* makes use of the idea of randomly sampling subcorpora that are of a comparable size, and this way we can see if typical subcorpora that consist of women's texts are using the way-construction in a more or less diverse manner than typical subcorpora of men's texts. We also apply the idea of random sampling to semantic representations of verbs derived from a distributional semantic model: we cluster the verbs in semantic classes, and calculate the average type counts per cluster over the random samples. This allows us to measure and compare the productivity and semantic spread of the construction for each gender at different points in time, and by focusing on particular semantic classes, we can identify where the differences lie.

Our pilot results show that both genders participate in the general trajectory of change whereby the construction becomes more open to abstract verbs (e.g. *talk*, *cheat*) as opposed to literal ways to create a path that enables motion (e.g. *hack*, *push*), but women seem to play a more active role in this change, which is in line with sociolinguistic theory (Labov 2001).

References

- COHA = Davies, Mark (2010–), *The Corpus of Historical American English: 400 million words, 1810–2009*.
- Hilpert, Martin (2013), *Constructional change in English: Developments in allomorphy, word formation, and syntax*, Cambridge: Cambridge University Press.
- Hilpert, Martin and Florent Perek (2022), You don't get to see that every day: On the development of permissive *get*, *Constructions and Frames* 14(1), 13–40.
- Labov, William (2001), *Principles of linguistic change, volume 2: Social factors* (Language in Society), Malden, MA: Blackwell.
- Nevalainen, Terttu and Helena Raumolin-Brunberg (eds), (1996), *Sociolinguistics and language history: Studies based on the Corpus of Early English Correspondence* (Language and Computers: Studies in Practical Linguistics), Amsterdam: Rodopi.
- Öhman, Emily, Tanja Säily and Mikko Laitinen (2019), Towards the inevitable demise of *everybody*? A multifactorial analysis of *-one/-body/-man* variation in indefinite pronouns in historical American English, in *40th Annual Conference of the International Computer Archive of Modern and Medieval English (ICAME 40)*, Neuchâtel, Switzerland, June 2019.
https://tanjasaily.fi/talks/icame40_ohman_et_al_2019.pdf
- Perek, Florent (2018), Recent change in the productivity and schematicity of the *way*-construction: A distributional semantic analysis, *Corpus Linguistics and Linguistic Theory* 14(1), 65–97.
- Säily, Tanja (2014), *Sociolinguistic variation in English derivational productivity: Studies and methods in diachronic corpus linguistics* (Mémoires de la Société Néophilologique de Helsinki), Helsinki: Société Néophilologique.
- Säily, Tanja and Turo Vartiainen (forthcoming), Historical linguistics, in M. Mahlberg and G. Brooks (eds), *Bloomsbury Handbook of Corpus Linguistics*, London: Bloomsbury.

The conventionalization of constructions in contact

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Keywords: language contact, Diasystematic Construction Grammar, pimp my ride, English, Dutch

Language contact is an important factor in the emergence of intralingual variation, including the use and spread of contact-related innovations. Diasystematic Construction Grammar (DCxG) (Höder 2018) is a usage-based constructionist approach to language contact situations that models how multilingual speakers and communities categorize interlingual input into language-specific as opposed to common constructions within a multilingual construction. More generally (Zenner et al. *forthc.*), this interlingual categorization is assumed to be efficient, functional, and flexible: (a) speakers identify recurring patterns across their linguistic repertoire, including languages that they mostly use receptively; (b) observed patterns are used with a purpose, e.g. they fill gaps, carry prestige, or facilitate extravagance (Ungerer & Hartmann 2020); (c) new patterns will be adopted, structurally modified, and repurposed, ultimately resulting in the conventionalization of contact-related innovations that changes the construction. Precisely how this categorization operates in individuals, whether the attested principles can be assumed for the individual as well as the community, and how they would then interact, is however not entirely clear.

This paper aims to contribute to the question: How can we model the adoption of contact-related innovations in a (multi- or monolingual) speech community, including the concomitant mechanisms of structural and communicative integration (cf. Weinreich et al. 1968)? To this end, we for several reasons target the trajectory of the English multi-word unit Pimp my ride into the Dutch verb *pimpen* 'to fancify'. First, introduced in Dutch as the title of an MTV programme, Pimp my ride allows us to pinpoint the point of entrance of the construction. Second, the construction is well-documented, with three case studies detailing the different stages of the construction's lifespan: (1) Van de Velde & Zenner (2010) study the first entrance of the construction in Dutch and its evolution from *pimp my ride over* [pimp POSS N] into the verb *pimpen* in a corpus of newspaper data, (2) De Pascale et al. (2023) study the factors that steer further deconstructionalization within and outside of the target [pimp POSS N] in a large Twitter corpus; (3) Pijpops et al.'s (2023) alternation study describes the sociolectal parameters steering the variation between the new borrowed verb and the non-borrowed alternative *opleuken*. Third, as the TV show Pimp my Ride was aired across Europe simultaneously, the construction allows us to compare the conventionalization trajectory attested for Dutch with other speech communities.

This particular case will as such allow us to illustrate and discuss conventionalization trajectories of constructions in contact. Moreover, the paper demonstrates how DCxG can be used to model the adoption of contact-related innovations by a speech community in constructional terms, focusing on (a) reorganizational processes within the multilingual constructions of individuals and communities that occur at different stages of the integration process and (b) the changing content of the pragmatic information that is associated with Pimp my ride and related constructions.

References

- De Pascale, Stefano, Dirk Pijpops, Freek Van de Velde & Eline Zenner (2022), Reassembling the pimped ride: a quantitative look at the integration of a borrowed expression, *Frontiers in Communication* 7, 777312.
- Höder, Steffen (2018), Grammar is community-specific: Background and basic concepts of Diasystematic Construction Grammar, in H. C. Boas & S. Höder (eds.), *Constructions in contact. Constructional perspectives on contact phenomena in Germanic languages*, Amsterdam: Benjamins, 37–70.
- Pijpops, Dirk, Stefano De Pascale, Freek Van de Velde & Eline Zenner (2023), Big Pimpin'. Een big data-benadering van de verspreiding van het leenwoord pimpen in het Nederlands, *Taal en Tongval* 75, 73–113.
- Ungerer, Tobias & Stefan Hartmann (2020), Delineating extravagance. Assessing speakers' perceptions of imaginative constructional patterns, *Belgian Journal of Linguistics* 34, 345–356.
- Van de Velde, Freek & Eline Zenner (2010), Pimp my Lexis: het nut van corpusonderzoek in normatief taaladvies, in Els Hendrickx et al. (eds.), *Liever meer of juist minder? Over normen en variatie in taal*, Gent: Academia Press, 51–68.
- Weinreich, Uriel, William Labov & Marvin I. Herzog (1968), Empirical foundations for a theory of language change, in W. P. Lehmann & Y. Malkiel (eds.), *Directions for historical linguistics. A symposium*, Austin: University of Texas Press, 95–195.
- Zenner, Eline, Esme Winter-Froemel & Ad Backus (in press), Cognitive Contact Linguistics. Usage-based approaches to contact-induced variation and change, in Jeroen Darquennes, Joe Salmons & Wim Vandenbussche (eds.), *Language contact. An international handbook (Handbooks of Linguistics and Communication Science 45)*, vol. 2, Berlin: De Gruyter.

Modelling constructional schematicity using nested random effects

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Keywords: chunking, reduction, reanalysis, idiosyncratic entrenchment, hierarchical models

Constructionist approaches see language as an inventory of constructions organized as a taxonomic network. The nodes in the network are connected by vertical links which capture inheritance relations between constructions at different levels of schematicity. For example, the idiom *kick the bucket* inherits some of its features from a more schematic construction *sbj kick obj* which is itself an instance of a fully schematic construction *sbj verb obj* representing transitive clauses in English (Croft 2001). Often, we need to determine the relevant level of constructional schematicity for a phenomenon we are studying. This paper presents a case study where this is achieved by using a hierarchical model, that is, a model with nested random effects.

The study asks whether frequent repetition in individual usage leads to idiosyncratic entrenchment and possibly reanalysis using reduction as a diagnostic. The data is comprised of approx. 7 million words of comments posted on a single blog by native and non-native speakers of English over 8 years. The comments of the most active commenters form individual subcorpora. The study utilizes the largest individual subcorpus which amounts to 1.75 million words. Reduction is operationalized as the alternation between the full and the contracted form of *it is*, the response variable in the model. All occurrences of *it is/it's* are extracted from the corpus ($n = 10,929$) and categorized by construction. The vast majority of all instances ($n = 9624$) fall into canonical copular *be* and anticipatory *it* constructions which further vary by the type of the predicative complement and the type of the extraposed subject comprising 11 constructions with one open slot. As a result, the occurrences of *it is/it's* can be modelled at three levels of schematicity: for example, *it is true that* is a lexical instantiation of *it is ADJ that* construction which is an instance of an anticipatory *it* construction. These three levels of schematicity are included as nested random effects in a logistic regression model predicting the contracted form. Change over time operationalized as the temporal order of occurrence is included both as a fixed effect, to control for a possible overall change towards a more informal style, and as a random slope, to gauge the effect of time on the probability of contraction across all three levels of schematicity. Preliminary results show that it is the lexical level which is the locus of change: different lexical instantiations show substantial variation in the extent to which they associate or become associated with the reduced form over time suggesting idiosyncratic entrenchment and reanalysis as a function of usage.

References

Croft, William. 2001. *Radical construction grammar: Syntactic theory in typological perspective*. Oxford: Oxford University Press.

Constructions within! Expanding sociolinguistic convention

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In this paper I explore new findings regarding multi-word constructions within linguistic variables undergoing change, analyzing them using a variationist sociolinguistic approach. One of the foremost methodological developments in this area of the discipline has been the expansion of the key construct, the linguistic variable (Labov, 1972), to a wide variety of language phenomena, encompassing different levels of grammar from phonetics to discourse- pragmatics. In the process, researchers revised procedures for defining the envelope of variation (e.g. Aaron, 2010; Brook, 2018), treatment of non-variable sectors (D'Arcy & Tagliamonte, 2015), handling of unexpected variants (Rupp & Tagliamonte, 2022) and accounting for overlapping functions (Sankoff et al., 1978).

Taking inspiration from constructionalist accounts (Goldberg, 1995; Traugott & Trousdale, 2013), I detail strategies for studying these complex variables using variationist techniques, including exploratory statistical modelling with conditional inference trees and random forests as well as mixed effects modelling (e.g. Baayen 2008; Tagliamonte & Baayen 2012). The data come from corpus-based studies of vernacular English speech: 1) complement clauses with *that* and *zero*, and 2) the alternation of *-wards* and *-ways* in adverbs.

1. To prove \emptyset I could do it. Yes, I had to prove *that* I could do it.
2. So you go *forward*, and then you have to switch to *backwards*.

In the first case, I demonstrate how construction *I think* grammaticalizes into a discourse- pragmatic marker. In the process, it leaves behind the imprint of the multiple factors that once influenced its development on the rest of the system, where its erstwhile recurrent patterns influence how the incoming zero option develops in the grammar. In the second case, three intersecting processes are involved in the change, including the lexicalization of certain constructions to form a phrasal verb, e.g. *move forward*. Taken together these findings expose the birthing of new constructions within variable systems, how they participate in variation, and their eventual splitting off into their own ongoing trajectories.

I conclude that constructions are key contributors to linguistic change in progress. By looking for them and incorporating them into variationist sociolinguistic practice, they offer new evidence for understanding the nature of grammar and how it develops over time.

References

- Aaron, J. E. (2010). Pushing the envelope: Looking beyond the variable context. *Language Variation and Change* 22(1): 1-36.
- Brook, M. (2018). Taking it up a level: Copy-raising and cascaded tiers of morphosyntactic change. *Language Variation and Change* 30(2): 231-260.
- D'Arcy, A. & Tagliamonte, S. A. (2015). Not always variable: Probing beneath the vernacular grammar. *Language Variation and Change* 27(3): 255-285.

- Goldberg, A. E. (1995). *Construction grammar: a construction grammar approach to argument structure*. Chicago: University of Chicago Press.
- Labov, W. (1972). *Sociolinguistic patterns*. Philadelphia: University of Pennsylvania Press.
- Rupp, L. & Tagliamonte, S. A. (2022). Loss and emergence: (Double) demonstratives and indefinite *this* in Ontario dialects. *Journal of Pragmatics* 189: 66-78.
- Sankoff, D., Thibault, P. & Bérubé, H. (1978). Semantic field variability. In Sankoff, D. (Ed.), *Linguistic Variation: Models and Methods*. 23–43.
- Traugott, E. & Trousdale, G. (2013). *Constructionalization and Constructional Changes*. Oxford and New York: University of Oxford Press.

The cognitive sociolinguistics of *hella*-intensification

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Keywords: intensification, social identity, EC-Model

The intensifier *hella* is rather (in)famous for its flexible syntactic distribution, its status as a regional shibboleth of Northern California and the Bay Area, and its etymology. It thus comes at little surprise that the expression has recently gained some serious interest among syntacticians, (perceptual) dialectologists, and (diachronic) construction grammarians (see e.g., Adams 2009; Boboc 2016; Bucholtz 2006; Bucholtz et al. 2007; Hoffmann & Trousdale 2011; Russ 2013; Trousdale 2012; Wood 2019).

From a cognitive perspective, the emergence of *hella* appears to be a straightforward case of coalescence brought about by an increase in usage-intensity of the original utterance *hell of a*, which eventually led to automatization and phonetic reduction: *hell of a* > *helluva* > *hella*. However, while *hell of a* and *helluva* are fully conventionalized in American English in general and should thus have roughly the same licensing potential across different dialects, the fully reduced form *hella* largely remains regionally stratified, its pop-culture induced awareness notwithstanding (cf. Daugs 2019). This suggests that conformity to social order on the one hand and entrenched pragmatic associations on the other play a crucial role in boosting or inhibiting the usualization of *hella*. To elaborate, speakers from a *hella*-community utilize the form to establish and maintain their social identity. The more often they do so in usage events, the more strongly the association between the form and the communicative goal of signaling belonging ('that is how WE speak') becomes entrenched. Conversely, speakers from an 'outside' community, while being aware of *hella* via diffusion, consciously avoid its use ('that is how THEY speak'), thereby prohibiting the form from becoming established in their community. On the cognitive side, this avoidance must also be stored in terms of entrenched pragmatic associations, yet not by means of frequent repetition.

Against the theoretical backdrop of Schmid's (2020) *Entrenchment-and-Conventionalization Model*, which unifies the individual and the collective side of the linguistic system, this study seeks to address three research questions:

- (i) In comparison to its formal and functional relatives *hell of a* and *helluva*, how is *hella* presumably processed in individuals and distributed across different speech communities?
- (ii) How can pragmatic associations, be it via adherence or avoidance, be operationalized?
- (iii) What is the exact nature of the relationship between the social and cognitive factors underlying the conventionalization and entrenchment of *hella*-intensification?

To answer these questions, we will draw on a variety of corpus and web-based data of American English (e.g. COCA, NOW, TV Corpus, Twitter, Netflix subtitles, Youglish) and discuss how socio-pragmatic properties like social identity or stereotyping can be modelled explicitly in usage-based frameworks of language.

References

- Adams, Michael. 2009. *Slang: The people's poetry*. Oxford: Oxford University Press.
- Boboc, Wellesley. 2016. To *hella* and back: A syntactic analysis of *hella* in dialects of American English. New York: New York University Senior Honors Thesis.
- Bucholtz, Mary. 2006. *Word up*: Social meanings of slang in California youth culture. In Jane Goodman and Leila Monaghan (eds.), *A cultural approach to interpersonal communication: Essential readings*, 243–267. Chichester: Wiley-Blackwell.
- Bucholtz, Mary, Nancy Bermudez, Victor Fung, Lisa Edwards & Rosalva Vargas. 2007. Hella Nor Cal or totally So Cal? The perceptual dialectology of California. *Journal of English Linguistics* 35(4). 325–352.
- Daug, Robert. 2019. *Get your ICAME on*: Constraints, expansion and productivity of GET POSS X on. Paper presented at *ICAME40*, June 1–5, Neuchâtel.
- Hoffmann, Thomas & Graeme Trousdale. 2011. Variation, change and constructions in English. *Cognitive Linguistics* 22(1). 1–23.
- Russ, Robert Brice. 2013. *Examining regional variation through online geotagged corpora*. Columbus: The Ohio State University Master's thesis.
- Schmid, Hans-Jörg. 2020. *The dynamics of the linguistic system: Usage, conventionalization, and entrenchment*. Oxford: Oxford University Press.
- Trousdale, Graeme. 2012. Grammaticalization, constructions and the grammaticalization of constructions. In Kristin Davidse, Tine Breban, Lieselotte Brems, and Tanja Mortelmans (eds.), *Grammaticalization and language change: New reflections*, 167–198. Amsterdam: John Benjamins.
- Wood, Jim. 2019. Quantifying geographical variation in acceptability judgments in regional American English dialect syntax. *Linguistics* 57(6). 1367–1402. *Grammaticalization and language change: New reflections*.

The construction as sociolinguistic variable: A case study of word order variation in Early Modern Welsh

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Keywords: Construction Grammar, sociolinguistic syntactic variation, Third Wave sociolinguistics, word order, Welsh

Two key attributes of Construction Grammar (CxG) make it particularly well suited to modelling sociolinguistic syntactic variation in contrast to formal syntactic frameworks: first, CxG is usage-based, and second, the key unit of analysis, the construction, has sociolinguistic reality and can be shown to form the basis of sociolinguistic variables in cases of sociolinguistic syntactic variation (Hollmann 2013). While strongly advocating a CxG approach to modelling sociolinguistic syntactic variation, this paper nevertheless argues that it is inappropriate theoretically and also impractical empirically to attempt to incorporate representations of sociolinguistic variation and sociolinguistic indexical meaning directly in constructional templates. Even though indexical sociolinguistic meanings can be seen as analogous to the “functional meaning” already incorporated in a construction’s theoretical representation, the construction, as the variable itself, is independent of the sociolinguistic parameters which (may) influence its use, so incorporating such sociolinguistic parameters in a constructional template risks circularity. The empirical argument in favour modelling sociolinguistic syntactic variation with the construction as the sociolinguistic variable is presented using a case study of word order variation in Early Modern Welsh (c.1500-c.1800). The variation primarily involves competition between three different constructions in positive declarative main clauses (PDMCs): Absolute V1 (where a finite verb comes in absolute-initial position), Personal pronoun subject+Verb (PronS-V) and the Dummy subject (DuS-V), as illustrated in examples (1) and (2), where Absolute V1 is used interchangeably with the other two constructions in different 16th-century Bible translations.

(1a) **Absolute V1**

<i>A</i>	<i>daeth</i>	<i>atto</i>	<i>ef</i>	<i>[vn]</i>	<i>gwahan-glwyfus</i>
And	come-3SG.PAST	to-3SG.M	him	[one]	leprous

[And a leper came up to him] (Morgan 1588; Mark 1:40)

(1b) **Dummy subject construction (DuS-V):**

<i>Ac</i>	<i>e</i>	<i>ddaeth</i>	<i>ataw</i>	<i>ddyn</i>	<i>clavrlyt</i>
And	he/it	come-3s.PST	to-3SG.M	man	leprous

[And a leper came up to him] (William Salesbury 1567; Mark 1:40)

(2a) **Absolute V1**

<i>Difethi</i>	<i>y rhai</i>	<i>a</i>	<i>ddywedant</i>	<i>gelwydd</i>
Destroy-2SG.PRES	the ones	REL	say-3PL.PRES	lie

[You destroy those who tell lies] (Morgan 1588; Psalm 5:6)

(2b) **Personal pronoun subject+Verb (PronS-V):**

<i>Ti</i>	<i>ddestrywy</i>	<i>y rei</i>	<i>y</i>	<i>ddywedant</i>	<i>gelwydd</i>
You-2SG	destroy-2SG.PRES	the ones	REL	say-3PL.PRES	lie

[You destroy those who tell lies] (Salesbury 1567; Psalm 5:6)

The case study is based on self-compiled corpus of Early Modern Welsh texts from c.1550 to 1772, including texts from all the different surviving text types from printed and manuscript sources – Bible translations, 1st person narrative prose, 3rd person narrative prose, expository prose, manuscript sermons, slander case records and verse popular drama – comprising in total over 10,000 PDMCs. It is shown that multiple factors impinge on the word order variation – syntactic, discourse pragmatic, lexical/idiomatic as well as sociolinguistic – and that while syntactic, discourse pragmatic and textual factors constrain the variation to an extent, a sociolinguistic factor – individual stylistic choice – seems to be the overriding one. Individual Early Modern Welsh writers seem to have adopted different patterns of use, ranging from generalising Absolute V1 in all contexts, at one extreme, to a complete avoidance of the construction, at the other, with various intermediate patterns of use in-between such as preferring Absolute V1 in certain syntactic environments or in certain idioms, or even style shifting between or within texts.

Using a Third Wave sociolinguistic approach, I argue that the syntactic interchangeability of the constructions as well as the variation in their use in texts and discourse provided Early Modern Welsh writers with a linguistic resource which they could exploit for sociolinguistic and stylistic purposes (Rickford & Eckert 2001: 1; Coupland 2007: 84; Currie 2023). More broadly, I argue that the locus of the sociolinguistic variation is the construction and that a CxG syntactic framework is well equipped to model such variation in contrast to a formal framework, such as the P&P approach of Willis (1998). On the other hand, I argue that it is impractical to attempt to incorporate such complex and unpredictable individual sociolinguistic variation – both in terms of frequency of use and indexical meaning – in constructional templates.

References

- Coupland, Nikolas (2007), *Style: Language Variation and Identity*, Cambridge: Cambridge University Press.
- Currie, Oliver (2023), On the indexical meaning of literary style shifting: the case of word order variation in the 16th-century Welsh Bible translations, in M. Schiegg & J. Huber (eds), (2023), *Intra-writer Variation in Historical Sociolinguistics*, Oxford: Peter Lang Verlag, 513-534.
- Hollmann, Willem B (2013), Constructions in cognitive sociolinguistics, in T. Hoffmann & G. Trousdale (eds), (2013), *The Oxford Handbook of Construction Grammar*, Oxford: Oxford University Press, 491-509.
- Morgan, William & National Library of Wales (1987 [1588]), *Y Beibl Cyssegr-lan 1588*, Aberystwyth: Llyfrgell Genedlaethol Cymru.
- Rickford, John R. & Eckert, Penelope (2001), Introduction, in J. R. Rickford & P. Eckert (eds), (2001), *Style and Sociolinguistic Variation*, Cambridge: Cambridge University Press, 1-18.
- Salesbury, William, Richard Davies & Thomas Huet (1567), *Testament Newydd ein Arglwydd Jesu Christ*, London: Henry Denham.
- Willis, David W. E. (1998), *Syntactic change in Welsh. A Study of the loss of Verb-Second*, Oxford: Clarendon Press.

WS3 Counterfactuals: Families of constructions

Functions and scope of the Zapotec counterfactual prefix *nī-*

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Keywords: Zapotec, Counterfactuality, Complex clauses, Modal operators

In this presentation we discuss various functions of the Zapotec counterfactual prefix *nī-*. This prefix, also referred as subjunctive (Munro 2006), occurs in the various constructions shown below. Verbs bearing this prefix generally occur in dependent clauses, (1) and (2), or under a modal operator, (3) and (4). In our presentation, we will show that, despite this syntactic dependency, the counterfactual prefix *nī-* exhibits semantic scope not only over the event encoded by the verb bearing it, but also over event denoted by the first (main) verb of the complex sentence. That is, in serial verb constructions, (1), and counterfactual conditionals, (2), the polarity reversal (Van linden & Verstraete 2008) applies to both predicates, although the prefix *nī-* is marked on the second (dependent) predicate only.

(1) Serial verb construction:

<i>zidxjbya</i>	<i>nyúnyum</i>
zi-dxjby=a	nī =uny=um
FUT-be.afraid=1SG	CNTF =do=3SG.ANML

'I would have been afraid because of it.' / 'It would have caused me to be afraid.'

(2) Counterfactual conditionals (Iatridou 1991):

<i>bællnyâ'</i>	<i>liz</i>	<i>Bæd,</i>	<i>zinnæz</i>	<i>gudxi</i>	<i>na</i>
bæll= nī -â'	liz	Bæd	zi-nnæz	gudxi	na
COND.SUB= CNTF -go.1SG	house.of	Pedro	FUT-catch	late	1SG

'If I had gone to Pedro's house, I would have been late (with/on my schedule).'

As discussed by Van linden & Verstraete (2008), counterfactuality is generally marked via a combination of various morphemes to include the features needed to express this, i.e., potentiality, past, imperfective. As shown in the Zapotec examples, none of these features are morphologically marked on the verb. Consequently, we argue that the semantics of the counterfactual prefix *nī-* has these semantic components and that these scope over the complex constructions in which it occurs. Therefore, we will show that *nī-* contains a 'past' feature, which we refer to as *overdue*, since Zapotec is an aspect prominent language. (Also, because the speaker knows that event indicated in the counterfactual clause did not or is no longer taking place independently from the utterance time.) This, just as with the polarity reversal feature, scopes over both predicates of the complex sentences in which *nī-* appears. This can be observed in the above examples, and in counterfactual basic constructions, (3), and in complementation (4), where the habitual TAM-prefix value of the first verb is overridden by this *overdue* feature.

(3) Counterfactual basic construction (Van linden & Verstraete 2008):

<i>ryäll</i>	<i>nyæñ</i>
r-yäll	nī =æ=(a)n

HAB-AUX.must CNTF=go=3SG.INF
'(S)he should have gone.'

(4) Complement clauses:

<i>rikqzan</i>	<i>nyæ̃n</i>	<i>stúblád</i>
ri-kəz=an	nī-æ=(a)n	stúblád
HAB-want=3SG.INF	CNTF-go=3SG.INF	(an)other.side

'(S)he wanted to go to the U.S.'

We will offer various hypotheses regarding the mentioned semantic features and scope of *nī-*. The present research not only contributes to the description of counterfactual constructions in Zapotec, but also to the typological study of the semantic scope of TAM-operators in clause-linkage constructions.

References

- Gutiérrez, Ambrocio. (2021), *A description and analysis of the syntax and functions of subordinate clauses in Teotitlán del Valle Zapotec (with an introductory overview of TdVZ phonology and morphosyntax)*. PhD dissertation, University of Texas at Austin.
- Iatridou, Sabine. (1991), *Topics in Conditionals*. Ph.D. dissertation, Massachusetts Institute of Technology, Cambridge, Massachusetts.
- Munro, Pamela. (2006), Modal expression in Valley Zapotec. In William Frawley (ed.), *The Expression of Modality*. Berlin, New York: Mouton de Gruyter, 177–209.
- Van linden, An & Jean-Christophe Verstraete. (2008), The Nature and Origin of Counterfactuality in Simple Clauses: Cross-linguistic evidence. *Journal of Pragmatics* 40, 1865-1895.

The diachrony of counterfactual patterns: Evidence from Ancient Greek diachrony (VIII BCE – III CE)

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Keywords: counterfactuality, linguistic typology, mood and modality, tense-aspect, Ancient Greek

Most research on counterfactual expression patterns centers around counterfactual conditionals, taking a synchronic perspective to account for cross-linguistic variation in tense-aspect (e.g. Iatridou 2000; Karawani 2014; von Prince 2019), modality (e.g. Lazard 1998) and marking (a)symmetries (e.g. Haiman and Kuteva 2002; Martínez and Lester 2022). Others have recently adopted a broader approach to counterfactuality as pertaining to other constructions as well, for example counterfactual expressions in simple clauses (Van linden and Verstraete 2008), past modal verb expressions such as *He should have called* (la Roi 2024), or in subordinate counterfactual wishes (e.g. Traugott 2017 for English; la Roi 2021 for Ancient Greek; 2022a for Latin). What those constructions have in common is that they express the opposite polarity than the polarity with which they are marked, as counterfactual conditionals (Karttunen 1971; la Roi 2024). In this paper, I address the typological question what the diachronic processes are which are responsible for different synchronic patterns of counterfactual marking. To answer that question, I present several case studies from the diachrony of Ancient Greek (from Archaic to Middle Post-Classical Greek, i.e. VIII BCE – III CE), as it has a great diversity of counterfactual expressions (cf. Wakker 1994 and Revuelta Puigdollers 2017 for Classical Greek (V - IV BCE)) and formal marking patterns (e.g. different aspectual options, la Roi 2022, forthc). I therefore contrastively analyze counterfactual conditionals, wishes and modal verbs in these periods. The corpus data for this investigation has been collected using advanced proximity searches in the *Thesaurus Linguae Graecae* (for literary texts) and lemmatized searches in *Trismegistos words* (for the papyri).

First, I identify the different sources for the counterfactual patterns which we find in the different Ancient Greek periods. Next, I detail the different processes which play a role in the creation of novel counterfactual patterns, such as different types of grammaticalization (cf. Allan 2013), in subordination (la Roi 2021) and cyclical changes (la Roi 2022b, forthc.). Finally, I address the diachronic interaction between the different counterfactual patterns. For example, la Roi (2024) has pointed out that some modal verbs in Classical Greek came to be used in counterfactual conditional periods as a result of their conventionalization of counterfactual usage via analogical extension; see example 1 below where the counterfactuality of the matrix clause implicates the counterfactuality of the preceding protasis.

- (1) [O Zeus, why have you settled women, this bane to cheat mankind, in the light of the sun?]

ei gàr bróteion é:theles speîrai génos, ouk ek

if=ptcl human-ACC wish-2SG-IMPF propagate-INF race-ACC NEG from

gunaikô:n khrê:n paraskhésthai tóde

women-GEN should-3SG-IMPF provide-INF DEM-ACC

If you wished to propagate the human race, it was not from women that you should have provided this. (E. *Hipp.* 618-619)

References

- Allan, Rutger J. 2013. Exploring Modality's Semantic Space Grammaticalization, Subjectification and the Case of ὄφειλω, *Glotta - Zeitschrift Fur Griechische Und Lateinische Sprache* 89, 1–46.
- Haiman, John, and Tania Kuteva. 2002. The Symmetry of Counterfactuals, in J. L. Bybee and M. Noonan (eds.), *Complex Sentences in Grammar and Discourse*, Amsterdam: John Benjamins Publishing Company, 101–124.
- Iatridou, Sabine. 2000. The Grammatical Ingredients of Counterfactuality, *Linguistic Inquiry* 31 (2), 231–270.
- Karawani, Hadil. 2014. *The Real, the Fake, and the Fake Fake in Counterfactual Conditionals, Crosslinguistically*. Utrecht: LOT.
- Karttunen, Lauri. 1971. Subjunctive Conditionals and Polarity Reversals, *Paper in Linguistics* 4 (2), 279–298.
- Lazard, Gilbert. 1998. L'expression de l'irréel: Essai de Typologie, in L. Kulikov and H. Vater (eds.), *Typology of Verbal Categories*. Berlin; Boston: De Gruyter, 237–248.
- Olguín Martínez, Jesús, and Nicholas Lester. 2022. A Quantitative Analysis of Counterfactual Conditionals in Cross-Linguistic Perspective, *Italian Journal of Linguistics* 33 (2), 147–182.
- von Prince, Kilu. 2019. Counterfactuality and past, *Linguistics and Philosophy* 42, 577–615.
- Revuelta Puigdollers, Antonio. 2017. Ὄφελ(λ)οῦν in Ancient Greek Counterfactual Desiderative Sentences: From Verb to Modal Particle, in K. Bentein, M. Janse and J. Soltic (eds.), *Variation and Change in Ancient Greek Tense, Aspect and Modality*, Leiden: Brill, 158–188.
- la Roi, Ezra. 2021. The Insubordination of If- and That-Clauses from Archaic to Post-Classical Greek: A Diachronic Constructional Typology, *Symbolae Osloenses* 95 (1), 2–64.
- . 2022a. Insubordination in Archaic and Classical Latin: Commands, Requests, Wishes and Assertives, *Journal of Latin Linguistics* 21 (1), 23–45.
- . 2022b. Interlocked Life-Cycles of Counterfactual Mood from Archaic to Classical Greek: Aspect, Actionality and Changing Temporal Reference, *Indogermanische Forschungen* 127, 235–282.
- . 2024. Polarity Reversal Constructions and Counterfactuals in Ancient Greek: Between Implicature and Conventionalization, *Journal of Historical Linguistics* 14 (2), 335–375. Published online 30.03.2023.
- forthc, exp. 2024. Aspect, Actionality and Pragmatics in the Life Cycles of Counterfactual Conditionals: The Evidence from Ancient Greek Diachrony (VIII – I BCE), in G. Sharma and M. Ippolito, *Tense and Aspect in Counterfactuals*, Berlin; Boston: De Gruyter.
- Traugott, Elisabeth C.. 2017. 'Insubordination' in the Light of the Uniformitarian Principle, *English Language and Linguistics* 21 (2), 289–310.
- Van linden, An, and Jean-Christophe. Verstraete. 2008. The Nature and Origins of Counterfactuality in Simple Clauses, *Journal of Pragmatics* 40 (11), 1865–1895.
- Wakker, Gerry C. 1994. *Conditions and conditionals : an Investigation of Ancient Greek*. Amsterdam: Gieben.

On the expression of counterfactuality in (some) Formosan languages

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Keywords: Counterfactuality, complementation, conditional constructions, Formosan languages, Austronesian languages

This paper demonstrates that across several Formosan languages (Austronesian languages of Taiwan), there are no constructions that can be characterized as counterfactual in nature. Instead, counterfactual situations, defined as potential situations that do not belong to the actual world (Verstraete 2005: 231), are expressed via constructions whose functions mainly relate to the speaker's expression of intention, desirability, and/or negative stance towards a situation's potential for realization. These constructions typically exhibit an array of functions, which include, and are not limited to, the expression of counterfactuality. In addition, no morphemes involved are found to strictly specify whether the expressed situation belongs to the actual world or not.

A commonly attested construction for expressing counterfactual situations is complementation involving complement-taking predicates of strong desirability. While the expressed desirability may be directed at a counterfactual situation, this depends solely on the context. As can be seen in Matu'uwal (Atayalic) *muwa* 'hope/wish' (1a) and Paiwan (Paiwanic) *saljinga* 'envy/wish' (1b) below, no morphemes involved in the complement clause are found to strictly indicate counterfactuality.

(1) Complementation and counterfactuality

a. **muwa** na maqualax.
hope/wish COMP rain

'I hope it rains. / I wish it was raining. (counterfactual reading)' (Matu'uwal, elicited)

b. **saljinga**=aken tu me'aca=mun a kirimu.
envy/wish=1SG.NOM COMP grow=2PL.NOM LNK fast

'I hope you grow up quickly. / I wish you would grow up (more) quickly. (counterfactual reading)' (Paiwan, adapted from the [ILRDF Online Dictionary](#): entry = *saljinga*)

Counterfactual situations are also commonly expressed in the conditional construction across Formosan languages. Again, no morphosyntactic elements involved are found to be strictly reserved for counterfactuality. Counterfactual protases are formally identical to non-counterfactual protases, where potential situations are expressed in clauses unmarked for tense-aspect. The corresponding apodoses also frequently involve future marking, a property consistently found for future-oriented conditionals. The morphemes that are shared across counterfactual and non-counterfactual conditionals are in boldface in the Kakanavu (Tsouic/Kakanavu-Saaroa) and Puyuma (Puyuma) examples below:

(2) Counterfactual conditionals

a. **no** ikasu=**in**=ku ia, **te**=ku komumuan
if 2SG=COND=1SG TOP FUT=1SG eat.more

'If I was you, I would eat more' (Kanakanavu, elicited)

b. **an** kararuwa=ta mutuayam mubii i,
if can=1PL.INCL become.bird fly TOP
na-nau=ta dra manay driya.
FUT-see=1PL.INCL OBL what first

'If we could become birds, we would see much more!' (Puyuma, adapted from the [ILRDF Online Dictionary](#): entry = *mutuayam*, Dr. Stacy Teng p.c. for interpretation of the data)

The languages surveyed in this paper cover four of the ten primary subgroups of the Austronesian language family in Blust's (1999) reconstruction. The findings show that the expression of counterfactuality across these languages may draw from a variety of formal means, including morphological, lexical, and syntactic ones. The surveyed structures, regardless, are not exclusive to the expression of counterfactuality; they are either related to different types of potentiality in nature (in complementation), or associated with the notion of hypotheticality (in conditional constructions). It remains to be seen to what extent the pattern holds in other Formosan languages.

Abbreviations

COMP Complementizer

COND Conditional

FUT Future

INCL Inclusive

LNK Linker

NOM Nominative

OBL Oblique

TOP Topic marker

References

Blust, Robert. 1999. Subgrouping, circularity and extinction: some issues in Austronesian comparative linguistics. In Elizabeth Zeitoun & Paul Jen-kuei Li (eds.), *Selected papers from the Eighth International Conference on Austronesian Linguistics*, 31–94. Taipei: Academia Sinica.

Verstraete, Jean-Christophe. 2005. The semantics and pragmatics of composite mood marking: The non-Pama-Nyungan languages of Northern Australia. *Linguistic Typology* 9. 223-268.

Counterfactuality and epistemic stance in *hypothetical manner* clauses from a cross-linguistic perspective

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Keywords: counterfactuality, epistemic stance, clause-combining, hypothetical manner, corpus

As defined in the literature (Dixon 2009, Olguín-Martínez 2021), so-called *hypothetical manner* (HM) clauses are a subtype of qualitative comparative constructions – as such, they portray “an imagined [...] or counterfactual [...] situation” (Olguín-Martínez 2021: 9). These non-factual values constitute the basic semantic trait of these clauses. Nevertheless, previous work (Royo-Viñuales & Van linden 2022) has shown that HM clauses may go beyond this basic functional behaviour, adopting new functional profiles in discourse.

In line with these findings, this paper further explores the semantic-pragmatic behaviour of HM clauses from a cross-linguistic perspective, comparing two Germanic languages –Dutch (1) and English (2)– and two Romance languages –Spanish (3) and French (4). In all four languages, HM clauses adopt (at least) the functional profiles illustrated in (1-4).

- (1) *Je moet nu niet doen **alsof** je niets qehoord hebt.* (Haeseryn et al. 1997: 1263)
'Don't act as if you haven't heard anything.'
- (2) *He walks around **as if** he owns the place.* (British National Corpus)
- (3) A: *Me gusta mi soltería.* 'I like being single.'
B: ***Como si** tuvieras otra opción!* 'As if you had the choice!' (Ameresco)
- (4) *La voiture fait un bruit **comme si** elle n'avait plus de batterie.* (frTenTen17)
'The car makes a sound as if it was running out of battery.'

Examples (1) and (2) represent the basic expression of *hypothetical manner*, i.e. how someone acts (1) or how something is done (2), although they differ in terms of syntactic dependency –complement in (1) vs. non-obligatory adverbial in (2). Examples (3) and (4), in turn, illustrate ways in which speakers bend the basic epistemic affordances of HM clauses to produce new functional profiles.

In (3), the assumption-denying function of the *como si*-clause results from a combination of two factors: (i) the basic non-factual meaning coded by the boldfaced conjunction, and (ii) the pragmatic use of the reversed-polarity interpretation ('you don't have the choice') as the main point of the speaker's utterance (Verstraete & D'Hertefelt 2014). By contrast, in (4), the reversed-polarity interpretation ('the car is not running out of battery') is not at issue in the interaction; rather, the speaker may very well believe that the car is actually running out of battery. So, while the *como si*-clause in (3) gets a counterfactual interpretation, the *comme si*-clause in (4) has a different epistemic status, with the speaker assessing its propositional content (with preserved polarity: 'the car is running out of battery') as probable. We will link this up with the notion of argumentative direction (Verhagen 2005), as suggested by Looji & Minnaert (2019: 366-368), as well as establish correlations with the degree of syntactic dependency.

This cross-linguistic study is corpus-based, and relies on spoken data. We took a random 250-hit sample from the Corpus Gesproken Nederlands for Dutch, and an exhaustive 225-hit dataset from the

British National Corpus for English. For French, we collected an exhaustive 215-hit dataset from Orféo, and for Spanish an exhaustive 102-hit dataset from Val.Es.Co, CORLEC, and Ameresco combined.

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References

- Dixon, Robert M. W. (2009). The semantics of clause linking in typological perspective. In Robert M. W. Dixon & Alexandra Y. Aikhenvald (eds.), *The Semantics of Clause Linking: a cross-linguistic typology*, 1-55. Oxford: Oxford University Press.
- Looji, Matthijs & Diana Minnaert (2019) Alsof ik nazi ben! Emotie en ontkenning in de Nederlandse alsof-X-constructie. *Nederlandse taalkunde*, 23(3), 359-369.
- Olguín-Martínez, Jesús F. (2021). Hypothetical manner constructions in world-wide perspectives. *Linguistic Typology at the Crossroads*, 1(1), 6-46.
- Royo-Viñuales, Víctor & An Van linden (2022). Insubordinate hypothetical manner constructions in French and Spanish: A pilot study. *Papers of the LSB*, 16.
- Verhagen, Arie (2005). *Constructions of Intersubjectivity: Discourse, Syntax, and Cognition*. Oxford: Oxford University Press.
- Verstraete, Jean-Christophe & Sarah D’Hertefelt (2014). Polariteitsomkering bij insubordinatie. In Freek Van de Velde, Hans Smessaert, Frank Van Eynde & Sarah Verbrugge (eds.) *Patroon en argument*. Leuven: University Press. 639–651.

Counterfactual constructions in Shiwilu (Kawapanan, Peru): A synchronic and diachronic perspective

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The frustrative is a “grammatical marker that expresses the non-realization of some expected outcome implied by the proposition expressed in the marked clause” (Overall 2017:479). Typologically, a frustrative as a grammatically-marked category is not commonly found across languages; however, it does seem to be a category employed by a fair number of languages of the greater Amazon region (Aikhenvald 2012: 183-185; Dietrich 2006; Payne 1990). This could be the result of a combination of areal diffusion and genetic inheritance.

It has often been claimed that if an Amazonian language contains a frustrative marker, it will tend to appear in counterfactual contexts, as in (1) (Muller 2013: 159; Overall 2017). The very fact that counterfactual constructions occur with frustrative markers is not surprising. Given that the frustrative is used for indicating the non-realization of a situation, this perfectly harmonizes with the sense of prototypical counterfactual constructions.

Puinave (Isolate)

- (1) *a-padatá* *ka-dikú,* *a-kuk-nók* *brasit-á* *ôm.*
1SG-money 3PL-DAT.EXIST 1SG-FRUST-go Brasil-ALL now
'If I had been rich, I would have gone to Brazil.' (Higuita 2008: 416-417)

In Shiwilu, a Kawapanan language from Northwestern Peruvian Amazonia, the frustrative suffix *-win* occurs in counterfactual constructions as in (2). In this example, this verbal suffix indicates that a (negative) event was narrowly averted; in this case, that the black alligator **almost** ate Julio.

- (2) *matutada=ler* *Kullu* *ka'-win-lli*
black.alligator=A Julio eat-FRUST-NFI.3SG
'The black alligator almost ate Julio.' (Shiwilu Dictionary¹, *matu-tada*)

Intriguingly, other counterfactual constructions in Shiwilu do not occur with the frustrative marker *-win*. Instead, they are encoded by the selection of verb endings from a set of paradigms that primarily encode modality and up to two core arguments. These are known as 'unfulfilled wish' and 'counterfactuality' paradigms. The resulting constructions may be either monoclausal or biclausal, as is shown in the following examples:

¹ The Shiwilu Dictionary entrances refer to Valenzuela et al. (2013).

- Müller, Neele. 2013. Tense, aspect, modality, and evidentiality marking in South American indigenous languages. Utrecht: LOT.
- Payne, David L. 1990. Some widespread grammatical forms in South American languages.
In Payne, Doris (ed.), *Amazonian linguistics*, pp. 75–87. Dallas: University of Texas Press.
- Valenzuela, Pilar, Meneleo Careajano, Emérita Guerra, Julia Inuma and Fernando Lachuma. 2013. *Kirka' Llawer'lla'la' Ñak: Diccionario Shiwilu-Castellano y Castellano-Shiwilu*. Lima: Federación de Comunidades Nativas de Jeberos (FECONAJE).
- Verstraete, Jean-Christophe. 2005. The semantics and pragmatics of composite mood marking: The non-Pama-Nyungan languages of Northern Australia. *Linguistic Typology* 9. 223-268.

Counterfactuals and tenselessness

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Keywords: Tenselessness; future time reference; irrealis mood; counterfactual conditionals; Yucatec Maya

I explore counterfactual past-time reference (CPTTR) as a diagnostic context for adjudicating between tense-based and mood-based analyses of constraints on future time reference (FTR) in superficially tenseless languages. The morphosyntactic form of Yucatec Maya clauses does not constrain the relation between topic time and utterance time or temporal reference points in discourse. However, the Perfective aspect marker is incompatible with FTR in matrix (1) (though not in conditional protases). A covert tense analysis would explain this in terms of the Perfective marker conflating non-future tense. But this analysis predicts that the Perfective should be acceptable in counterfactuals, contrary to fact: using the Perfective in (2) in the protasis, apodosis, or both would result in semantic anomaly. 22 scenarios were tested with four speakers (all males, ages 40-77), each involving a story vignette culminating in a conditional statement. The speakers were asked to retell the vignettes in their own words and were encouraged to improve them in the process wherever possible. It emerged that perfective-marked clauses are excluded from both the protasis and the apodosis of counterfactual conditionals, whereas all other aspect markers (as well as modal markers and temporal remoteness markers, all of which are in complementary distribution) freely occur in such contexts, just as they are freely compatible with FTR. The literature on counterfactuals predicts that past tense may or may not occur with CPTTR in individual languages, whereas realis moods should be straightforwardly excluded (Iatridou 2000; von Prince 2019; von Prince et al. 2022; Klein 2021; *inter alia*). I argue that the Completive ‘Status’ marker (-*ah* in (1)), which both requires and is required by the Perfective aspect marker, expresses realis mood. I sketch a formalization of realis and irrealis mood based on Klein (2021).

(1) #**T-in=ts'on-ah** le=kèeh sáamal=o'
PRV-A1SG=shoot-CMP(B3SG) DEF=deer tomorrow=D2
intended: ‘I will shoot the deer tomorrow’

(2) [Context: A hurricane has destroyed the harvest.]
Wáah ma' tuméen òok'-ik le=chak+íik'-al=o'
ALT NEG(B3SG) CAUSE enter-**EFOC(B3SG)** DEF=rain+wind-REL=D2
béeh **ts'o'k** u=hach=yàan-**tal** (ka'ch) le=nal=o'.
now **TERM** A3=really=EXIST-**INCH.INC** formerly DEF=maize=D2
‘If it wasn’t because the storm entered, the corn would have turned out really well.’

Key to morpheme glosses

1/3 – 1st/3rd person; A/B – Cross-reference Set-A/B; ALT – Alternative; CAUSE – Causal connective; CMP – Completive; D2 – Indexical clause-final particle; DEF – Definite; EFOC – Extrafocal; EXIST – Existential; INC – Incompletive; INCH – Inchoative; NEG – Negation; PRV – Perfective; REL – Relational; SG – Singular; TERM – Terminative.

References

- Iatridou, S. (2000). The grammatical ingredients of counterfactuality. *Linguistic Inquiry* 31(2): 231-270.
- Klein, W. (2021). Another way to look at counterfactuals. *Theoretical Linguistics* 47(3-4): 189-226.
- Von Prince, K. (2019). Counterfactuality and past. *Linguistics and Philosophy* 42:577–615.
- Von Prince, K., A. Krajinović, & M. Krifka. (2022). Irrealis is real. *Language* 98(2): 221-249.

A survey of counterfactual conditional constructions in Australian languages

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In this paper, I present a survey of counterfactual conditional constructions (CtfCondCxn) based on a sample of 75 Australian languages. CtfCondCxns express a relationship between two non-asserted, non-actualised events (Olguín Martínez & Lester 2021: 153). As such, they form the intersection of both counterfactual (Ctf) and conditional (Cond) constructions. In Australian languages, CtfCxns can be marked with verbal inflections or free modal particles (Verstraete 2005; 2006), while CondCxns can be expressed with dedicated marking or a combination of non-dedicated modal markers and clause linkers (AUTHOR 2023). Although most CtfCondCxns can be described with these two patterns, my survey of CtfCondCxns reveals a surprising level of diversity and idiosyncrasy. I will explore two aspects: preference towards the use of modal features over linking elements, and functional specialisation.

Essentially, the first aspect is that CtfCondCxns are preferentially realised in a paratactic structure, with modal markers but no overt clause linkage markers. Compare examples (1)–(3):

(1) features a dedicated CtfCond conjunction *narli-nyurdany*, while (2) and (3) show CtfCond being expressed without linkage markers, and instead with modal markers: ‘past irrealis’ verb inflections in (2), and a dedicated Ctf marker in (3). As such, the conditional meaning in (2) and

(3) could be said to arise by inferential means triggered by modal marking, rather than by direct encoding (AUTHOR 2023: 321–338; Olguín Martínez & Lester 2021: 154–155; Verstraete 2010: 464–466, see also Merlan 1981). In my survey, paratactic constructions with modal marking are proportionally more common among CtfCondCxns than in other types of CondCxns, as summarised in (4). I explain this bias by relating another observation: Ctf markers have few functions outside of Cond, while both non-Ctf modal markers and clause linkage markers frequently feature in non-Cond contexts. As such, the pressure for CtfCondCxns to be overtly marked by clause linkage markers is far lower than other CondCxns.

The second aspect is the apparent functional restriction of CtfCondCxns; in the sample, they often involve frustrations associated with ‘close calls’ (1), or with past possibilities, intentions or desires (2), while theoretical ‘fancies’ (3) are rare. This is expected, given that Ctf marking in the sample invariably involves past-oriented marking (Verstraete 2005), precluding compatibility with non-past situations (which are conveyed with modal markers such as purposive and future).

(1) Yawuru (Nyulnyulan > Eastern; Hosokawa 1991: 474)

narli-nyurdany *yinydya* *mi-rndira-nda*, *maytbi* *dyiwarri+wai-dyu*.
true-CAUS¹ thither 2-go-PFV might_be dead+2FUT-AUX(say)
‘You could have lost your life if you had been there.’

(2) Gaagudju (isolate / Arnhem?; Harvey 2002: 371)

0-ng-goro-garraa-ri *arr-geenma-ri=nu*
3NCL(I).O-1A:IRR-see-AUX-PST 1-say:IRR-PST=3MIN.IO
‘If I had seen him, I would have told him.’

(3) Kala Lagaw Ya (Pama–Nyungan > Northern; Mitchell 2011: 432)

lawnga, toekuyapa-NGU wathara-NGU tiida-i-gi-nga nay,
 no same_sex_sibling-GEN firewood-GEN ["did_not_fetch"] CTF nu-
 be-ka koey+zagetha wathara-n muy-ka zazama-i-ka
 him-AUG-DAT big+work.NOM firewood-INS fire-DAT kindle-VN-DAT
 'No, if my brother didn't fetch any firewood, it would be impossible for him to kindle the fire.'

(4)

	CtfCond	non-CtfCond
Languages with CondCxn(s)	50	70
No. CondCxns	88	240
No. modal-only CondCxns	30	48
% No. modal-only / No. CondCxns	34.1%	20%

Abbreviations: A 'agent role', AUG 'augmenting suffix', AUX 'auxiliary', CAUS 'causal', CTF 'counterfactual', DAT 'dative', FUT 'future', GEN 'genitive', INS 'instrumental', IO 'indirect object role', IRR 'irrealis', MIN 'minimal number', NCL(...) 'noun class (...)', NOM 'nominative', O 'object role', PST 'past', PFV 'perfective', VN 'verbal noun', + 'compounding boundary'

References

- Harvey, M., 2002. *A Grammar of Gaagudju*. Mouton de Gruyter, Berlin.
- Hosokawa, K., 1991. The Yawuru language of West Kimberley: A meaning-based description (PhD Dissertation). Australian National University, Canberra.
- Merlan, F. 1981. Some functional relations among subordination, mood, aspect and focus in Australian languages. *Australian Journal of Linguistics* 1(2). 175–210.
- Mitchell, R., 2011. Ngalmun Lagaw Yangukudu: The language of our homeland. *Memoirs of the Queensland Museum – Culture* 8, 323–446.
- Olguín Martínez, J., & Lester, N., 2022. A quantitative analysis of counterfactual conditionals in cross-linguistic perspective. *Italian Journal of Linguistics* 33: 147–182.
- Verstraete, J.-C., 2005. The semantics and pragmatics of composite mood marking: The non-Pama-Nyungan languages of northern Australia. *Linguistic Typology* 9: 223–268.
- Verstraete, J.-C., 2006. The role of mood marking in complex sentences: A case study of Australian languages. *Word* 57: 195–236.
- Verstraete, J.-C., 2010. Focus, mood and clause linkage in Umpithamu (Cape York Peninsula, Australia). In: Brill, I. (Ed.), *Clause Linking and Clause Hierarchy: Syntax and Pragmatics*. John Benjamins Publishing Company, Amsterdam. 451–468.

If not for-if it weren't/wasn't for:

A multivariate extension of colostruational analysis

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Colostruational analysis (CA) is a family of methods used to determine how much linguistic elements (dis)like to co-occur with or within constructions (Stefanowitsch & Gries 2005: 5). It usually focuses on 1+ slots in one construction (collexeme analysis), one slot in 2+ constructions (distinctive collexeme analysis), or 2 slots in one construction (co-varying collexeme analysis). Here we propose a new multivariate extension that combines distinctive and (co-varying) collexeme analysis via a configural frequency analysis (following up on Hoffmann et al. 2019). This allows the analyst to identify associations not just of one slot to a construction or one slot to one other slot in one construction, but to include other features to identify (i) which constructions are preferred by which fillers in, now, one *or more* slots of one construction and (ii) which constructions are preferred by which of one or more fillers.

We exemplify the method and its potential with an exploration of one construction traditionally neglected in the literature: privative counterfactuals. We take into account >2.1K privative counterfactuals [*if not for* __1, *NP would* __2], [*if it wasn't for* __1, *NP would* __2], and [*if it weren't for* __1, *NP would* __2] from COCA. All instances of the three constructions were annotated for the animacy of __1 and the verb lemma and the polarity (positive vs. negative) of __2 and submitted it to our new method.

- The method identifies a variety of preferential patterns. For instance,
- *if not for* ... is significantly attracted to human NPs and the lemmas *exist* or *be able to* but only when the main clause shows negative polarity (e.g., *if not for her, this company wouldn't exist*), but also significantly attracted to human NPs and the lemmas *die* or *fail* when the main clause shows positive polarity (e.g., *if not for him, she would have died*);
 - *if it weren't for* ... is significantly attracted to human NPs and the lemma *have* but only when the main clause shows negative polarity (e.g., *if it weren't for him, I wouldn't have that*), but also significantly attracted to human NPs and the lemma *be able to* when the main clause shows positive polarity (e.g., *if it weren't for them, she would be able to run faster*);
 - *if it wasn't for* ... is significantly attracted to human NPs and the lemma *be* but only when the main clause shows either polarity (e.g., *if not for her, I wouldn't be here*), but also significantly attracted to human NPs and the lemmas *know* or *have* when then main clause shows negative polarity (e.g., *if it wasn't for him, I wouldn't know it*).

The above already indicates how the new method can identify preference patterns that none of the less 'high-dimensional' traditional approaches can see. We propose that the preference patterns characterizing *if not for*, *if it weren't for*, and *if it wasn't for* constructions can be explained by the semantic coherence principle (Goldberg 1995: 50).

References

- Goldberg, Adele E. 1995. *Constructions: A construction grammar approach to argument structure*. Chicago: University of Chicago Press.
- Hoffmann, Thomas, Jakob Horsch, & Thomas Brunner. 2019. The more data, the better: A usage-based account of the English comparative correlative construction. *Cognitive Linguistics* 30. 1-36.
- Stefanowitsch, Anatol & Stefan Th. Gries. 2005. Covarying collexemes. *Corpus Linguistics and Linguistic Theory* 1. 1-43.

Counterfactuals on the move: The case of Rutul

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Keywords: Nakh-Daghestanian languages, Rutul, counterfactual condition, polysemy

Three Lezgian languages, Lezgian, Agul, and Tabassaran (Nakh-Daghestanian, North Caucasus), denote counterfactual conditional clauses by suffixes which are used in a wide range of contexts (*-t'a*, *-č'i*, and *-š* respectively), including hypothetical conditional clauses, counterfactual conditional clauses, polar indirect questions, WH indirect questions, concessive-conditional clauses, correlative clauses and indefinite pronouns (Haspelmath 1993, Maisak 2002, Babaliev 2013). The contrast between counterfactual and other types of conditions is expressed by the verbal stem and by the predicate of the main clause. Another Lezgian language, Tsakhur has no such shared marking; conditional clauses are marked by suffix *-xe* (*-ke*) which takes irrealis suffix *-i* to denote counterfactuality, resulting in *-xi* (*-ki*). Hence, in all four languages the form of counterfactual condition is related to other conditional forms.

The marker of counterfactual condition in another Lezgian language, Rutul, is different from that of the other conditional clauses. Using the data of the dialectological survey of Rutul (Alekseeva et al. 2023), I study the polysemy of Rutul counterfactual markers in order to uncover their historical development.

In most dialects, the counterfactual form is marked by the suffix *-jden/-jdena/-jdene/-jdin/-jdijni* (further *-jden*), where *-j* is the marker of past tense. The suffix *-jden* is used exclusively in counterfactuals. However, in the village of Kina the converb with the suffix *-jden* covers all the same contexts as the Lezgian, Agul, and Tabassaran suffixes discussed above, excluding the hypothetical condition and polar indirect questions. The distribution of the suffix *-jde/-jdi* which is used in counterfactual condition in the villages of Luchek and Kiche, also reminds that of Lezgian, Agul, and Tabassaran, with the same notable exception: it is not used in hypothetical clauses and polar indirect questions.

In other words, three patterns of polysemy of counterfactual suffixes are encountered in five geographically adjacent Lezgian languages:

- “conditional” pattern, where the suffix is used in hypothetical and counterfactual conditional clauses, polar indirect questions, WH indirect questions, concessive-conditional clauses, correlative clauses and indefinite pronouns (Lezgian, Agul, Tabassaran)
- “hypothetical conditional excluded” pattern - counterfactual conditional clauses, WH indirect questions, concessive-conditional clauses, correlative clauses and indefinite pronouns (Kina Rutul *-jden*, Luchek Rutul and Kiche Rutul *-jde/-jdi*)
- “counterfactual-only” pattern (nine Rutul villages).

I suppose that, at an earlier stage of Rutul (stage 1), the suffix *-d* (*-de*, *-di*) could have covered the same functions as the corresponding Lezgian, Agul, and Tabassaran suffixes. Then *-d* was ousted from hypothetical conditional clauses by other suffixes (*-ne/jne/ni*, *-xna*, *-naqun* and some others) in most dialects except Luchek and Kiche (stage 2). Later, the counterfactual suffix was reinforced by adding the conditional morpheme *-ne/jne/ni*, thus building the counterfactual suffix as a “double conditional”: *j-de-ne* (stage 3). This stage is evidenced by Dirr (1912), who documented only the suffix *-idi* for counterfactual

conditional clauses in the village of Rutul. Finally, in the dialect of Kina this suffix extended its usages to all the contexts which were covered by *-d-* (*-de*, *-di*) at the earlier stage, thus replicating the previous polysemy with the new suffix *-jden* (stage 4).

References

- Alekseeva A., N. Beklemishev, M. Daniel, N. Dobrushina, K. Filatov, A. Ivanova, T. Maisak, M. Melenchenko, G. Moroz, I. Netkachev, I. Sadakov. 2023. Atlas of Rutul dialects. Moscow: Linguistic Convergence Laboratory, HSE University. https://lingconlab.github.io/rutul_dialectology/index.html
- Babaliyeva, A. (2013). Études sur la morphosyntaxe du Tabasaran Littéraire (PhD thesis). École Pratique des Hautes Études.
- Dirr, A. (1912). Rutul'skij jazyk (Sbornik materialov dlja opisanija mestnostej i plemen Kavkaza XLII). Tiflis.
- Haspelmath, M. (1993). A grammar of Lezgian. Berlin/New York: Mouton de Gruyter.
- Majsak, T. A., & Merdanova, S. R. (2002a). Glagol'naja sistema xpjukskogo govora agul'skogo jazyka [Verb system of HuppuK Agul]. Manuscript.

Effects of counterfactuality in a language without grammatical counterfactuality: Evidence from Russian

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Keywords: counterfactual conditionals, asyndetic conditionals, conjunction, temporal clauses, Russian grammar

It is commonly assumed that Russian lacks grammatical counterfactuality, as both counterfactual conditionals and future-less-vivid conditionals (i.e., conditionals that imply that the protasis is more likely to be false rather than true, cf. Iatridou 2000) are encoded in the same way, namely by subjunctive (Wierzbicka 1997: 38). The goal of the present study is to determine whether Russian has any covert manifestations of counterfactuality (CMofC) and, if so, whether they provide new insights into counterfactuality compared to languages with regular grammatical counterfactuality.

Based on previous research and Russian National Corpus (RNC) data, I argue that there are three types of CMofC:

- Conditional constructions (CCs) that can only be counterfactual, e.g., asyndetic subjunctive CCs or CCs introduced by the subordinator *kogda* *by*, lit. ‘when+subjunctive’. According to RNC data, in this respect asyndetic subjunctive CCs differ from CCs introduced by the basic conditional subordinator *esli* (χ^2 , $p < 0.05$). Cf. the contrast in (1), in which (1a) is asyndetic and necessarily counterfactual, while (1b) is introduced by *esli* and future-less-vivid. In the context as in (1b), an asyndetic construction would sound unnatural.

(1) a. — *Ty v apteku sxodil? — Kak že ja mog?*
you in pharmacy go.PST how PTCL I can.PST
Pozvonila by na mobil’nyj, zaexal by. (RNC)
call.SUBJ SUBJ on cell.phone stop.SUBJ SUBJ

‘– Did you go to the pharmacy? – How could I? If you had called me on my cell phone, I would have stopped by.’

b. *Esli by ty pozvonila mne na mobil’nyj segodnja*
if SUBJ you call.SUBJ me on cell.phone today
večerom, kak ja predlagaju, ja zaexal by v
evening as I suggest.PRS I stop.SUBJ SUBJ in
apteku.
pharmacy

‘If you called me on my cell phone this evening, as I suggest, I would stop by the pharmacy.’

- CCs whose form depends on whether they are counterfactual (e.g., infinitives within the protasis must be subjunctive if the CC is counterfactual and might be indicative if the CC is future-less-vivid, cf. Dobrushina 2016: 197).
- CCs that cannot be counterfactual, in particular those of them that can at the same time be future-less-vivid. An example would be the subordinator *kol’ skoro* ‘if’, which according to RNC data introduces factual conditionals, i.e., conditionals that presuppose the protasis to be true, occasionally also future-neutral-vivid, or real, and future-less-vivid conditionals, but not

counterfactuals. Such CCs show the relevance of counterfactuality for Russian grammar by contradiction, namely by avoiding it.

The data lend themselves to the following generalization. Counterfactual conditionals are semantically stronger than both future-less-vivid and future-neutral-vivid conditionals in that they resolve ambiguity better. This is why, I argue, Russian asyndetic subjunctive CCs cannot be future-less-vivid: in the absence of an explicit conditional marker, the strongest meaning is needed to denote the conditional relation as unequivocally as possible. Similarly, it may be assumed that *kogda by* is only used in counterfactuals because this helps to resolve the ambiguity between the (obsolete) conditional and temporal meaning of *kogda*. This account also sheds light on the typological generalization put forward by Iatridou and Embick (1994), namely that the set of languages that have future-neutral-vivid asyndetic CCs constitutes a proper subset of languages that have counterfactual asyndetic CCs.

Abbreviations: PRS = present, PST = past, PTCL = particle, SUBJ = subjunctive.

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References

- Dobrushina, Nina (2016), *Soslagatel'noe naklonenie v Russkom jazyke: opyt issledovanija grammatičeskoj semantiki* [Subjunctive mood in Russian: a study of grammatical semantics], Prague: Animedia Company.
- Iatridou, Sabine (2000), The grammatical ingredients of counterfactuality, *Linguistic Inquiry* 31, 231-270.
- Iatridou, Sabine & David Embick (1994), Conditional Inversion, in Mercè González (ed.), (2000), *Proceedings of the North Eastern Linguistic Society 24*, Amherst: Graduate Linguistics Student Association, 189–203.
- Russian National Corpus. Available at: www.ruscorpora.ru.
- Wierzbicka, Anna (1997), Conditionals and Counterfactuals: conceptual primitives and linguistic universals, in A. Athanasiadou and R. Dirven (eds.), (1997), *On Conditionals Again* [Current Issues in Linguistic Theory 143], Amsterdam: John Benjamins Publishing Company, 5-60.

Identifying a family of counterfactual constructions in ASL

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Keywords: American Sign Language (ASL), sign languages, counterfactual constructions, cognitive-functional linguistics, construction grammar

This study examines ASL *counterfactual constructions* from a cognitive-functional perspective (Fauconnier 1994, Diessel 2019, Croft 2022). Counterfactual constructions encode a speaker's construal of "polarity reversal" (Verstraete and Luk 2021): the situation described could have happened differently or not at all. Counterfactual constructions in ASL have not yet been studied independently of other *conditional constructions*, which can encode temporal/hypothetical information without polarity reversal (Olguín Martínez and Lester 2021). ASL does not mark morphological tense, and like other tenseless languages, ASL utilizes resources from other domains for marking counterfactuality (Janzen 2019). In line with research on other sign languages (Dachkovsky and Sandler 2009), we observe that ASL counterfactuals are marked similarly to conditionals. The conditional posture is formed with the torso tilted and the eyebrows raised while the manual sign is produced. Contextual and morphosyntactic cues distinguish conditionals and counterfactuals within this constructional family. These include conditional, modal, and negation signs, and non-manual postural changes.

We present examples from two ASL monologues: one explanation of the concept 'version control' in computer science and one personal narrative recounting two pranks involving tarantulas. ASL conditional constructions are prototypically formed with a conditional clause articulated with a distinct face/body posture compared to the result clause. Conditional clauses also share this formal marking with ASL *topic constructions* (which code given/presupposed information; Haiman 1978, Liddell 1986, Wilcox and Wilcox 1995). Counterfactual constructions can be formed with negation signs or with modal signs ('should'), as in Figure 1, in addition to changes in face/body posture. This example also illustrates that counterfactuals may be bracketed by two tokens of a manual sign. More complex constructions involve conditionals embedded in counterfactuals. Across attested examples, we observe that ASL counterfactuals are unified in the use of different postures for the conditional and result clause, and the postures associated with these constructions also mark a wider family of conditional and topic constructions.

Figure 1. ASL counterfactual: 'the spider should crawl away' but 'it stays hanging on the curtain' (<https://www.facebook.com/watch/?v=1790586267637137>, ~2:45)



'He noticed that although the spider should have crawled away or fallen off, it just stayed there on the curtain'

References

- Croft, William (2022), *Morphosyntax: Constructions of the World's Languages*, Cambridge University Press.
- Dachkovsky, Svetlana & Sandler, Wendy (2009), Visual intonation in the prosody of a sign language, *Language and Speech* 52(2/3), 287–314. <https://doi.org/10.1177/0023830909103175>
- Diessel, Holger (2019), *The Grammar Network. How Linguistic Structure is Shaped by Language Use*, Cambridge University Press.
- Fauconnier, Gilles (1994), *Mental Spaces: Aspects of Meaning Construction in Natural Language*, Cambridge University Press.
- Haiman, John (1978), Conditionals are topics, *Language* 54(3), 564–589. <https://doi.org/10.2307/412787>
- Janzen, Terry (2019), Shared spaces, shared mind: Connecting past and present viewpoints in American Sign Language narratives, *Cognitive Linguistics* 30(2), 253–279. <https://doi.org/10.1515/cog-2018-0045>
- Liddell, Scott (1986), Head thrust in ASL conditional marking, *Sign Language Studies* 52, 243–262. <https://www.jstor.org/stable/26203911>
- Olguín Martínez, Jesús & Lester, Nicholas (2021), A quantitative analysis of counterfactual conditionals in the world's languages, *Italian Journal of Linguistics* 33(2), 147–182. <https://doi.org/10.26346/1120-2726-178>

Verstraete, Jean-Christophe & Luk, Ellison (2021), Shaking up counterfactuality: Even closer to the linguistic facts, *Theoretical Linguistics* 47(3-4), 287–296. <https://doi.org/10.1515/tl-2021-2026>

Wilcox, Sherman & Wilcox, Phyllis (1995), The gestural expression of modality in ASL, In J. Bybee and S. Fleischman (eds), *Modality and Grammar in Discourse*, 135–164, John Benjamins.

As if: From complement clauses to mistaken belief

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Keywords: complementation, insubordination, semblative, mistaken belief, English, diachrony

In present-day English, ‘as if’ is used to introduce adverbial and complement clauses (1), but can also be used in cases of insubordination (2) or as a ‘mistaken belief’ particle (3) indicating the speaker’s rejection of a contextually prior or implied proposition. In terms of diachronic development, Brinton (2014) proposes that the complement patterns as in (1) are the most likely source of monoclausal uses as in (2), by ellipsis of the matrix that typically expresses a degree of epistemic uncertainty, and strengthening of the conjunction’s meaning of uncertainty to denial.

(1) It looks almost **as if** his bones are strengthening themselves. (Movie Corpus)

(2) He isn't the kind of a man who has weaknesses. – **As if** you know what kind of man he is. (Movie Corpus)

(3) Hi! Was that you going through my laundry? – **As if!** Like I would really wear something from Judy's. (Movie Corpus)

(4) a. Going to be a big one, **looks like**. (COCA, cited in Lopéz-Couso & Méndez-Naya 2012: 181)

b. John is ill, **it seems**. (Poortvliet 2016: 389)

This paper presents a corpus-based study tracing these uses of ‘as if’ and spelling equivalents in Middle to Late Modern English data (from PCEEC, PPCME2, PPCME, CLMETEV, and CEAL). The analysis adds to Brinton’s proposed pathway by showing that the early rise in insubordinate uses occurs in parallel with the grammaticalization of the limited set of verbs occurring in the complement construction (*seem, look, sound, feel*, etc.). These predicates develop into raising verbs that mark direct evidence (e.g. Poortvliet 2016), thereby anchoring a perspective directly to the speaker. Later developments along this grammaticalization path go in two directions: either they centrally keep the (conditional-)comparative marker and focus on expressing *disalignment* on the part of the speaker with the content of the original subordinate clause (2, 3), or they focus on (weak, approximative) *alignment* with the content of the original subordinate clause by promoting it to a separate speaker assertion (4). These findings add empirical historical evidence to the suggested typological pathway from similarity markers to mistaken-belief particles (e.g. Breen 1984; see McGregor 2023), and yield new insights into the diachronic perspectival shifts and the general historical development of insubordinate clauses.

References

- Breen, J. Gavan. 1984. Similarity and mistake in two Australian languages. *Language in Central Australia* 2: 1–9.
- Brinton, Laurel J. 2014. The extremes of insubordination: Exclamatory *as if!* *Journal of English Linguistics* 42(2): 93–113.
- CEAL: Corpus of Early American Literature. See Höglund and Syrjänen (2016).
- CLMETEV: Corpus of Late Modern English Extended Version. Compiled by Hendrik de Smet. <https://perswww.kuleuven.be/~u0044428/clmet.htm>.

- Davies, Mark. 2008-. The Corpus of Contemporary American English (COCA). Available online at <https://www.english-corpora.org/coca/>.
- Davies, Mark. 2010. The Corpus of Historical American English (COHA). Available online at <https://www.english-corpora.org/coha/>.
- Davies, Mark. 2019. The Movie Corpus. Available online at <https://www.english-corpora.org/movies/>.
- Höglund, Mikko & Kaj Syrjänen. 2016. Corpus of Early American Literature. *ICAME Journal* 40: 17–38.
- López-Couso, María-José & Belén Méndez-Naya. 2012. On the use of *as if*, *as though* and *like* in present-day English complementation structures. *Journal of English Linguistics* 40(2): 172–195.
- McGregor, William B. 2023. On the expression of mistaken beliefs in Australian languages. *Linguistic Typology* (published online ahead of print: <https://doi.org/10.1515/lingty-2022-0023>).
- PCEEC: Parsed Corpus of Early English Correspondence, text version. 2006. Compiled by Terttu Nevalainen, Helena Raumolin-Brunberg, Jukka Keränen, Minna Nevala, Arja Nurmi & Minna Palander-Collin, with additional annotation by Ann Taylor. Helsinki: University of Helsinki and York: University of York. Distributed through the Oxford Text Archive.
- Poortvliet, Marjolein. 2016. Copy Raising in English, German, and Dutch: Synchrony and Diachrony. *Journal of Germanic Linguistics* 28(4): 370–402.
- PPCEME: Penn-Helsinki Parsed Corpus of Early Modern English. 2004. Anthony Kroch, Beatrice Santorini & Ariel Diertani. 2004. <http://www.ling.upenn.edu/hist-corpora/PPCEME-RELEASE-2/index.html>
- PPCME2: Penn-Helsinki Parsed Corpus of Middle English, second edition. 2000. Anthony Kroch & Ann Taylor. <http://www.ling.upenn.edu/hist-corpora/PPCME2-RELEASE-3/index.html>.

Counterfactual constructions in Zamucoan

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Keywords: Clause combining, Counterfactuality, Grammaticalization, Para-hypotaxis, South-American languages, Zamucoan.

The present talk addresses counterfactuality in the small Zamucoan family (Bolivia, Paraguay): Old Zamuco (18th century), Ayoreo (≈ 5,000 speakers in Bolivia and Paraguay) and Chamacoco (≈ 2,000 speakers in Paraguay). I use data from the available historical sources for Old Zamuco (Chomé 1958 [before 1745]; Ciucci, forthcoming), and from my fieldwork and the available literature for Ayoreo and Chamacoco (cf. Fabre 2005-2023, Ciucci 2016).

Zamucoan verbs have neither tense nor aspect and only distinguish between realis and irrealis mood (Bertinetto 2014a). Counterfactuality is usually associated with the irrealis, which, depending on the language, is also expressed by modality-sensitive negators and subordinators. In Ayoreo, hypothetical manner constructions (1) and counterfactual conditional constructions (2) are encoded through the irrealis subordinator *ujetiga*. Counterfactual conditional constructions are also characterized by the presence of the modal marker *-ras(V)* (Bertinetto 2014b: 404), which may also convey counterfactuality in independent clauses: *ueradi-rase* (beautiful-MOD[SG.PRED]) ‘As if it were pretty’ (Morarie 2006: 81).

- (1) Ayoreo (Morarie 2011: 106)

<i>Cho</i>	<i>ujetiga</i>	<i>y-ab-ipise</i>	<i>ua</i>
[3]be_like	SUB.IRR	1SG-SON-AUGM[M.SG.PRED]	2SG

‘It is as if you were my own child.’

- (2) Ayoreo (Morarie 2006: 97)

<i>Ujetiga</i>	<i>pota</i>	<i>dirica</i>	<i>ga,</i>	<i>a</i>	<i>y-isi-rase</i>
SUB.IRR	[3]want	yesterday	and	MOD	1SG.IRR-give-MOD

arurég-ode ome
bread-M.PL to

‘If he had wanted (it) yesterday, I would have given him bread.’

The situation is similar in Old Zamuco, albeit with different morphemes: both hypothetical and counterfactual conditional clauses are introduced by the subordinators *ine* and *pinaco... =o*, with counterfactuality indicated by the modal marker *querehe/quehe* in the apodosis (3). Old Zamuco *querehe/quehe* may also express counterfactuality in simple clauses and is related to the Chamacoco subordinator *kerêhe/kêhe*, which is specific for counterfactual conditional clauses (4). In Ayoreo and Chamacoco, hypothetical counterfactual clauses often appear within para-hypotactic constructions (Bertinetto & Ciucci 2012, Pesini 2013, and Ross et al. 2018).

(3) Old Zamuco (Ciucci, forthcoming)

ine aca Agaye d-unina yu, querehe econi y-ori
if NEG Jesuit_father 3.IRR-hear 1SG COUNTERFACTUAL then 1SG.IRR-steal
'If the Jesuit father had not heard me, I would have stolen.'

(4) Chamacoco (Ciucci, fieldwork)

Kerēhe tak-aha dihirb-it, ich t-ish
if 1SG-go morning-M.SG and 1SG-meet
'If I had gone (there) in the morning, I would have met (him/her).'

Finally, I deal with hypothetical manner clauses, which in Chamacoco and partly in Old Zamuco have the same markers as real manner clauses. In Zamucoan, the subordinators for hypothetical manner clauses share a similar pathway of grammaticalization involving the verb 'be like' (1), which is frequent cross-linguistically (cf. Olguín Martínez 2021).

References

- Bertinetto, Pier Marco (2014a), Tenselessness in South American Indigenous languages with focus on Ayoreo (Zamuco), *LIAMES* 14, 149-171.
- Bertinetto, Pier Marco (2014b) [2009], Ayoreo, in M. Crevels, and P. Muysken (eds.), (2014), *Lenguas de Bolivia*, vol. 3, *Oriente*, La Paz: Plural Editores, 369-413. English version [Ayoreo (Zamuco): A grammatical sketch, 2009] in *Quaderni del Laboratorio di Linguistica* n.s. 8.
- Bertinetto, Pier Marco, and Luca Ciucci (2012), Parataxis, hypotaxis and para-hypotaxis in the Zamucoan Languages, *Linguistic Discovery* 10(1), 89-111.
- Chomé, Ignace (1958) [before 1745], Arte de la lengua zamuca (Présentation de Suzanne Lussagnet), *Journal de la Société des Américanistes de Paris* 47, 121-178.
- Ciucci, Luca (2016), *Inflectional morphology in the Zamucoan languages*, Asunción: CEADUC.
- Ciucci, Luca (ed.) (forthcoming), *Ignace Chomé: Vocabulario de la lengua zamuca - Edición crítica y comentario lingüístico*, Madrid / Frankfurt: Iberoamericana Vervuert Verlag.
- Fabre, Alain (2005-2023), *Diccionario etnolingüístico y guía bibliográfica de los pueblos indígenas sudamericanos*, online at <http://www.ling.fi/DICCIONARIO.htm>
- Morarie, Maxine E. (2006) [1980], *Simplified Ayoreo grammar*, Cochabamba: Publicaciones Nueva Vida.
- Morarie, Maxine E. (2011), *Diccionario ayoré – español*. Manuscript.
- Olguín Martínez, Jesús (2021), Hypothetical manner constructions in world-wide perspective, *Linguistic Typology at the Crossroads* 1(1), 6-46.
- Pesini, Luca (2013), *Tra coordinazione e subordinazione: La paraipotassi in italiano antico*, Pisa: Scuola Normale Superiore, PhD thesis.
- Ross, Daniel, Jesús Olguín Martínez, and Luca Ciucci (2018), *Para-hypotaxis in the world's languages: A cross-linguistic survey*, paper presented at *Syntax of the World's Languages VIII*, Paris, 3-5 September 2018. https://swl8.sciencesconf.org/data/pages/Ross_et_al_PH_SWL_1.pdf

WS4 Encoding
perception across
languages: New
insights and new
methods

Syntax of Scents and Tastes: A Unique Case of Double-Nominative Argument Marking in Azeri

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(EPHE-PSL / ILARA)

Keywords: argument marking, Turkic, Azeri, valency, double nominative

Like all Turkic languages, Azeri is a nominative language, with the (zero-marked) nominative case used primarily to encode the subject of the sentence or a nominal predicate. It encodes the following:

○ A subject complement:

- (1) *Sara* *direktor* *seç-il-di.*
PN:NOM director:NOM choose-PSV-PST:3
'Sara was elected as director.'

○ A non-referential direct object:

- (2) *Sara* *kitab* *al-di.* vs. *Sara* *kitab-ı* *al-di.*
PN:NOM book:NOM get-PST:3 PN:NOM book-ACC get-PST:3
'Sara bought a book / books.' 'Sara bought the book.'

○ The modifier in a nominal compound:

- (3) *Azərbaycan* *Respublika-sı*
Azerbaijan:NOM republic-POSS:3
'the Republic of Azerbaijan'

○ The complement of some postpositions and relational nouns:

- (4) *direktor* *kimi*
director:NOM as
'like a/the director'

○ The adverbial use of certain nouns denoting time and space:

- (5) *səhər*
morning:NOM
'in the morning'

A few intransitive verbs denoting olfactory and gustatory qualities – *dad-* 'taste', *qoxu-* 'smell' and *iyələn-* 'reek' – reveal a so-far undescribed type of argument marking: two arguments of the verb can only be marked in the nominative, even when both are referential (8):

- (6) *Bal* *zəhər* *dad-ır.*
honey:NOM poison:NOM taste-IPFV:PRS:3
'The honey tastes like poison.'
- (7) *Ev* *siqaret* *iyələn-ir.*
house:NOM cigarette:NOM reek-IPFV:PRS:3
'The house reeks of cigarettes.'
- (8) *Həmi-si* *sən* *qoxu-yur.*
all-POSS:3NOM you:NOM smell-IPFV:PRS:3
'All of them smell like you.'

For Turkish, a language closely related to Azeri, Göksel & Kerlake (2005: 155, 375) mention finite clauses referred to as “small clauses” and defined as ones where the subject is also a constituent (subject or object) of the main clause. This includes what appears to be double-nominative constructions involving transitive and intransitive verbs, also of perception and cognition (own gloss):

- (9, Turkish) *[Bu resim sanat eser-i] say-ıl-maz.*
 This picture:NOM art creation-POSS:3:NOM count-PSV-NEG:AOR:3
 ‘This picture can’t be considered a work of art.’
- (10, Turkish) *[Mehmet iyi] görün-üyor-du.*
 PN:NOM good:NOM seem-PROG-PST:3
 ‘Mehmet seemed fine.’

However, since all the examples provided by Göksel & Kerlake (2005) are those of embedded non-finite predicates with omitted copulae (i.e. ‘can’t be considered [to be] a work of art’ in (9) and ‘seemed [to be] fine’ in (10)) and since no such predicates can be reconstructed for the Azeri sentences in (6–8), the latter do not fall under this clause type. In addition, none of the examples of intransitive verbs listed shown for Turkish feature two nominal arguments, except subject complements with functive semantics, as in (1), which the authors analyse as “small clauses”.

There are two solutions, either one or both of which could potentially account for (6–8):

- Olfactory and gustative verbs can be analysed as pseudo-copulae (though without the typically copular semantics of ‘being’ or ‘becoming’), similar to the finite verb *çık-* ‘exit’ having acquired the meaning of ‘end up being, turn out to be’:

- (11) a. *Sara direktor-dur.*
 PN:NOM director:NOM-COP:3
 ‘Sara is a/the director.’
- b. *Sara direktor ol-du.*
 PN:NOM director:NOM be-PST:3
 ‘Sara became a/the director.’
- c. *Sara direktor çık-dı.*
 PN:NOM director :NOM exit-PST :3
 ‘Sara turned out to be a/the director.’

- Olfactory and gustative verbs entail double-nominative marking by analogy with constructions where the subject complement can be expressed by an adjective in the nominative (cf. Turkish (10)), in which case, contrary to Göksel & Kerlake (2005), it may not be analysed as the subject or object of an embedded clause. Compare (6) with (12):

- (12) *Bal acı tad-ır.*
 honey:NOM bitter:NOM taste-IPFV:PRS:3
 ‘The honey tastes bitter.’

However, neither possibility can explain why the development has affected only these specific verbs and bypassed other, semantically similar and equally or even more frequently used ones, e.g. *görün-* ‘seem’ or *səslən-* ‘sound’.

References

Göksel, Aslı & Kerlake, Celia (2005). *Turkish: A Comprehensive Grammar*. Routledge Comprehensive Grammars. London / New York: Routledge.

FEEL-verbs in Slavic

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Keywords: verbs of perception, parallel corpus, colexification, sensory mode, experiencer

The verbs with the meaning ‘feel, sense’ are not included in the traditional structure of the perception field (Viberg 2001) and generally lie at the crossroads of perception, emotions and cognition. In particular, in the CLICS database (Rzymiski, Tresoldi et al. 2019) the concept FEEL has the definition ‘to be in some emotional state’ but the concepts it is colexified with include all sensory modalities but sight, as well as the concepts from the cognition domain, such as KNOW and UNDERSTAND, see also Georgakopoulos et al. (2021: 21).

The aim of this study is to explore the semantic and grammatical structure of the domain covered by FEEL-verbs in Slavic. Using data from the parallel corpus InterCorp (Rosen et al. 2022), I identify the major verbs and constructions in the domain and analyze their distribution, following the approach proposed by Wälchli (2016). I will also take into account the influence of the language of the original, which is mostly English but also German or one of the Slavic languages, and look at the differences between fiction texts and subtitles, which constitute a large part of the corpus and are more spontaneous and closer to the spoken language.

In terms of colexification patterns, the major sensory mode colexified by FEEL-verbs in Slavic is that of smell, cf. Polish *czuć* ‘feel, smell’, Russian *čujat’* ‘feel, smell’. The data of parallel texts suggest that there is also a significant overlap with contexts containing verbs of rational assessment and knowledge, in particular ‘know’ and ‘seem’. Although Slavic verbs ‘see’ and ‘hear’ also display systematic extensions to the cognition domain, they tend to occupy different niches as compared to ‘feel’, as there are only occasional correspondences between ‘feel’, on the one hand, and ‘see’ and ‘hear’, on the other.

In several languages, a distinction is drawn between the experiencer’s assessment of their own state (e.g., ‘feel tired’) as opposed to the assessment of external stimuli (as in ‘feel smell’). In Bulgarian, the former is rendered by the aspectual pair of verbs *chuvstvavam* – *pochuvstvavam* and the latter, by *useshtam* – *usetja*. In Slovenian, the perfective verbs with different prefixes are used for the two types of situations (*počutiti* and *začutiti*, respectively), whereas the imperfective verb is the same (*čutiti*). This distinction manifests itself in the choice of grammatical constructions: statistically, reflexive constructions are associated with “internal” sensation and uses with complement clauses, with “external” sensation.

Languages also differ in the textual frequency of their FEEL-verbs. These differences partially stem from the fact that some states and types of perception are expressed with the means other than the verb ‘feel’, e.g., with constructions featuring existential and possessive verbs. Judging from the parallel texts, some languages are more prone than others to add a clause with the verb ‘feel’ indicating the source of experience, even if this information is not given in the original. In Russian, in particular, the verbs *chuvstvovat’* – *pochuvstvovat’* are more frequent than their counterparts in other Slavic languages.

References

- Georgakopoulos, Thanasis, Eitan Grossman, Dmitry Nikolaev, and Stéphane Polis (2021), Universal and macro-areal patterns in the lexicon: A case-study in the perception-cognition domain, *Linguistic Typology* 26(2), 2021-2088.
- Rosen, Alexandr, Martin Vavřín, and Adrian Jan Zasina (2022), *InterCorp, Release 15 of 11 November 2022*, Institute of the Czech National Corpus, Charles University. Available at: <http://www.korpus.cz>.
- Rzymiski, Christoph, Tiago Tresoldi et al. (2019), *The Database of Cross-Linguistic Colexifications, reproducible analysis of cross-linguistic polysemies*. Available at: <https://clics.clld.org/>.
- Viberg, Åke (2001), Verbs of perception, in M. Haspelmath, E. König, W. Oesterreicher, and W. Raible (eds), (2009), *Language Typology and Language Universals: An International Handbook*, Berlin: Walter de Gruyter, 1294-1309.
- Wälchli, Bernhard (2016), Non-specific, specific and obscured perception verbs in Baltic languages, *Baltic linguistics* 7, 53-135.

Indonesian basic gustatory terms: A corpus study and a cognitive salience index

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Keywords: basic taste terms, Indonesian, cluster analysis, freelisting task, cognitive salience index

While the visual sense receives considerable scientific attention, the gustatory sense is comparatively underexplored due to its status as one of the "lowest" in the perception hierarchy (Speed and Majid 2020; Bagli 2021). Given the essential role of food in human survival and shared physiological characteristics related to the gustatory sense, one might expect linguistic commonalities in expressing taste and food-related concepts (Rhee and Koo 2017). However, cross-linguistic studies have revealed varying lexicalizations of gustatory modalities (Dupire 1987; Backhouse 1994; Enfield 2011). For instance, English has four basic taste terms: *sweet*, *sour*, *salty*, and *bitter* (Bagli 2021), occasionally including *umami* (Ankerstein and Pereira 2013). This paper explores the extensive vocabulary of Indonesian taste terms. In the study, I use a freelisting task (n = 52) to assess the Cognitive Salience Index (CSI), standardized to range from 1 to 0; an ideally most salient term has a value of 1, while a term not mentioned at all scores 0 (Sutrop 2001). Table 1 shows the CSI of taste terms in Indonesian compared to English taste terms (Bagli 2021). It is striking that Indonesian taste terms have significantly higher salience than English taste terms. The Indonesian taste term *pedas* ('spicy, hot') is ranked similarly to the English term *spicy*, but the former has a higher CSI than the latter, which qualifies *pedas* to belong to the first group of Indonesian CSI in the grey cells (more salient than the second group in the white cells). Another peculiarity is that the neutral taste terms in Indonesian are among the higher salience ranks (*hambar* 'bland' at rank 6; *tawar* 'bland' at rank 9), while the English taste term *bland* is only found at rank 18 (Bagli 2021).

Table 1: English (Bagli 2021) and Indonesian taste terms in the CSI

rank	English	CSI	Indonesian	translations	CSI
1	<i>sweet</i>	0,25641026	<i>manis</i>	'sweet'	0,59059768
2	<i>sour</i>	0,20833333	<i>asin</i>	'salty'	0,34509804
3	<i>salty</i>	0,15384615	<i>asam</i>	'sour'	0,28172188
4	<i>bitter</i>	0,12581169	<i>pahit</i>	'bitter, acrid'	0,24471031
5	<i>spicy</i>	0,06482525	<i>pedas</i>	'spicy, hot'	0,15126050
6	<i>savoury</i>	0,05250000	<i>hambar</i>	'tasteless, bland'	0,07029775
7	<i>hot</i>	0,04958246	<i>gurih</i>	'deliciously pungent/piquant'	0,06121473
8	<i>delicious</i>	0,03933566	<i>kecut</i>	'sour'	0,06102096
9	<i>umami</i>	0,03000000	<i>tawar</i>	'tasteless, bland'	0,03121775
...	
18	<i>bland</i>	0,02148557	<i>amis</i>	'fishy smell'	0,00735294

Using a large corpus based on written internet texts from 2013 (ind_mixed_2013) containing 74,329,815 sentences and 1,206,281,985 tokens (Goldhahn et al. 2012), the paper investigates the semantics of Indonesian taste terms (in alphabetical order): *asam* 'sour', *asin* 'salty', *getir* 'bitter, tart', *gurih* 'deliciously pungent/piquant', *hambar* 'bland', *kecut* 'sour', *lezat* 'delicious', *manis* 'sweet', *pahit* 'bitter, acrid', *pedas* 'spicy, hot', *sepet* 'sour, acid', *tawar* 'bland' (Alwi et al. 2005; Endarmoko 2007; Stevens and Schmidgall-Tellings 2008). These terms meet the criteria for basic terms: monolexemic, not tied to specific object categories, and psychologically salient (Berlin and Kay 1969). Using a corpus-

based method with cluster analysis (Divjak and Fieller 2014; Levshina 2015: 301–321), the paper examines how these taste terms lexicalize some foods but not others, in order to reveal the structure of taste terms (Krifka 2010; cf. Wnuk et al. 2020; Siahaan 2022).

References

- Alwi, Hasan, Dendy Sugono, Sri S. Adiwimarta, Hans Lapoliwa, Abdul G. Ruskhan, Erwina Burhanuddin & Hartini Supadi. 2005. *Kamus Besar Bahasa Indonesia [Indonesian comprehensive dictionary]*. Jakarta: Balai pustaka.
- Ankerstein, Carrie A. & Gerardine M. Pereira. 2013. Talking about taste: Starved for words. In Cornelia Gerhardt, Maximiliane Frobenius & Susanne Ley (eds.). *Culinary Linguistics: The chef's special*, 305–316: John Benjamins Publishing Company.
- Backhouse, Anthony E. 1994. *The lexical field of taste: a semantic study of Japanese taste terms*. Cambridge: Cambridge University Press.
- Bagli, Marco. 2021. *Tastes we live by: The linguistic conceptualisation of taste in English* (50). Berlin: Walter de Gruyter.
- Berlin, Brent & Paul Kay. 1969. *Basic color terms: Their universality and evolution*. Berkeley: University of California Press.
- Divjak, Dagmar & Nick Fieller. 2014. Cluster analysis: Finding structure in linguistic data. In Dylan Glynn & Justyna A. Robinson (eds.). *Corpus methods for semantics: Quantitative studies in polysemy and synonymy* (43), 405–441. Amsterdam: John Benjamins Publishing Company.
- Dupire, Marguerite. 1987. Des goûts et des odeurs: classifications et universaux. *l'Homme*. 5–25.
- Endarmoko, Eko. 2007. *Tesaurus Bahasa Indonesia [Indonesian thesaurus]*. Jakarta: Gramedia Pustaka Utama.
- Enfield, Nicholas J. 2011. Taste in two tongues: A Southeast Asian study of semantic convergence. *The Senses and Society* 6(1). 30–37.
- Goldhahn, Dirk, Thomas Eckart & Uwe Quasthoff. 2012. Building large monolingual dictionaries at the Leipzig Corpora Collection: From 100 to 200 Languages. *Proceedings of the 8th International Language Resources and Evaluation (LREC'12)*(29). 31–43.
- Krifka, Manfred. 2010. A note on an asymmetry in the hedonic implicatures of olfactory and gustatory terms. In Susanne Fuchs, Phil Hoole, Christine Mooshammer & Marzena Zygis (eds.). *Between the regular and the particular in speech and language*, 235–245. Frankfurt am Main: Peter Lang.
- Levshina, Natalia. 2015. *How to do linguistics with R: Data exploration and statistical analysis*. Amsterdam: John Benjamins Publishing Company.
- Rhee, Seongha & Hyun J. Koo. 2017. Multifaceted gustation: Systematicity and productivity of taste terms in Korean. *Terminology* 23(1). 38–65.
- Siahaan, Poppy. 2022. Indonesian basic olfactory terms: more negative types but more positive tokens. *Cognitive Linguistics* 33(3). 447–480.
- Speed, Laura J. & Asifa Majid. 2020. Grounding language in the neglected senses of touch, taste, and smell. *Cognitive neuropsychology* 37(5-6). 363–392.
- Stevens, Alan M. & A. E. Schmidgall-Tellings. 2008. *Kamus Lengkap Indonesia-Inggris [A Comprehensive Indonesian-English Dictionary]*. Bandung: PT Mizan Pustaka.
- Sutrop, Urmas. 2001. List task and a cognitive salience index. *Field methods* 13(3). 263–276.
- Wnuk, Ewelina, Rujawan Laophairoj & Asifa Majid. 2020. Smell terms are not rara: A semantic investigation of odor vocabulary in Thai. *Linguistics*. 937–966.

The introduction of auditory signals in Chinese and French narratives: Perspectival center and focus structure

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Keywords: auditory signal; contrastive analysis; locative inversion; perspective relationship; phenomenon-based perspectivization

Perceptive relationships can be conceptualized from either the experiencer's perspective (e.g., *I heard a gunshot*) or the phenomenon's perspective (e.g., *a gunshot sounded*). In some languages, a specific category of 'perceptibility verbs' (Viberg 2019) is employed to convey the phenomenon-based perspective. This is exemplified, in the auditory domain, by verbs signifying "be audible" in languages like Finnish, Swedish, and Japanese, among others (Viberg 1983, 2019; Huumo 2010).

Chinese and French, on the other hand, lack such specialized lexical verbs and belong to languages that rely on different morphosyntactic strategies to express a perceptive relationship from the phenomenon's viewpoint (Lamarre 2020, Sarda et al. Under review).

Focusing on the less-explored auditory domain, this study adopts a contrastive perspective to examine the specialized constructions available in Chinese and French. In particular, the locative inversion construction emerges as a strategy commonly used in both languages, as seen in (1-2). Closely related to existentials (Sarda & Lena 2023), these constructions show remarkable similarities in both languages concerning the predicates recruited (e.g., emission and directed-motion verbs), the position and role of locatives, as well as their function within discourse.

In this talk, the focus will be on the discourse-pragmatic function of phenomenon-based encodings versus experiencer-based encodings, examining their incidence on the discourse organization. Specifically, we explore the interplay between inverse perspectivation at the sentence level and broader discourse structure, and potential correlations between construction type, sentence-level features, and the tracking of both the experiencer and the phenomenon in subsequent text (Ariel 2001, Landragin 2021).

The research builds on a bilingual corpus composed of two subcorpora: comparable and parallel. The comparable subcorpus includes samples from both language (N = 200), extracted from contemporary novels by searching for keywords indicating the phenomenon (i.e., the sound signal being introduced in the narrative). This approach allowed us to observe the types and frequency of the syntactic patterns associated with these introductions, and their correlation with referent tracking.

The parallel subcorpus consists of aligned translations of Chinese-to-French and French-to-Chinese sentences (N = 150), extracted using the same method as the comparable corpus but retaining only the sentences in which phenomenon-based encodings are expressed as directional relationships (as seen in (1-2)). This allowed us to explore questions such as the influence of venitive deixis on the tracking of the experiencer.

Our analysis confirms that experiencer-based forms represent the unmarked case, with the experiencer simultaneously serving as the perspectival center and the sentence topic. In contrast, phenomenon-based constructions introduce a mismatch into both the perspectival structure and the

discourse flow. Findings indicate that the experiencer is a discourse entity that remains accessible for activation, even when it is not explicitly mentioned in the sentence. Nevertheless, phenomenon-based encodings can lead to relatively low to moderate discourse permanence of the sound signal as a topic, potentially resulting in topic shifts (Givón 1983, von Heusinger & Schumacher 2019, Hou & Landragin 2023).

Two pressures, it is argued, are at play in phenomenon-based perceptivizations: on the one hand, the sentence assigns the role of subject to the phenomenon to redirect the attention away from the experiencer; on the other, it signals, often through postverbal position, that this subject is not to be misconstrued as a topical, discourse-old element.

- (1) a. French.
Du petit pré d'en bas montaient des voix enfantines, (...).
 from.the little meadow below rise.PST.3PL INDF.ART.PL voices childlike
 Lit. 'From the little meadow below were rising children's voices.'
- b. Chinese.
Shùlín xiàmiàn yī xiǎo fāng cǎodi=shang chuán-lai yì-qún
 forest below one little square meadow=on spread-come(VEN) one-group
értóng de shēngyīn: (...).
 child SUB sound
 Lit. 'From the small meadow below the trees came the sound of a group of children.'
 (Roman Rolland, *Jean Christophe*, Chinese translation by Fu Lei)
- (2) a. Chinese.
Wàibian chuán-lai xiǎoxuéshēng de hǎnjiào-shēng (...).
 outside spread-come(VEN) schoolchildren SUB shout-sound
- b. French.
De l'extérieur parvenaient des cris d'écoliers (...).
 from the outside approach.PST.3PL INDF.ART.PL shouts of schoolchildren
 Lit. 'From outside came the shouts of schoolchildren'. (Mo Yan, *Fēng rǔ féi tún [Big Breasts and Wide Hips]*, 1996, French translation by N. Dutrait & L. Dutrait)

References

- Ariel, Mira (2001), Accessibility theory: An overview. In T. Sanders, J. Schiperoord, & W. Spooren (Eds.), *Text representation: Linguistic and psycholinguistic aspects* (29–87). Amsterdam: John Benjamins.
- Givón, Talmy (1983), *Topic Continuity in Discourse* (Typological Studies in Language). Amsterdam: John Benjamins.
- Lamarre, Christine (2020). Deixis personnelle et deixis spatiale: japonais et chinois. In Corre, E., Do-Hurinville, D. T., & Dao, H. L. (Eds.), *The Expression of Tense, Aspect, Modality and Evidentiality in Albert Camus's L'Étranger and Its Translations. An empirical study*. Amsterdam: John Benjamins.
- Landragin, Frédéric (2021). Approches contrastives des chaînes de référence. Présentation. *Travaux de linguistique*, 82: 7–16.

- Hellerstedt, Maria & Rea Peltola (2019), Le chemin de l'audible: la structuration dynamique de la perception par les verbes *höras* (suédois) et *kuulua* (finnois) « être audible », *Syntaxe et Sémantique* 20: 67–86. Presses universitaires de Caen.
- Hou, Jiaqi & Landragin, Frédéric (2023), Correlation between sentence topic and discourse topic in French and Chinese: Annotation issues and contrastive analysis, *Studia Linguistica* 77(3): 515–60.
- Huumo, Tomas (2010), Is perception a directional relationship? On directionality and its motivation in Finnish expressions of sensory perception, *Linguistics* 48(1): 49–97.
- Sarda, Laure & Lena, Ludovica (2023), Existential constructions: In search of a definition. In L. Sarda, & L. Lena (Eds.), *Existential constructions across languages: Forms, meanings and functions*. Amsterdam: John Benjamins.
- Sarda, Laure, Lamarre, Christine & Lena, Ludovica (Under review), L'apparition du bruit dans le récit : perception auditive, directionnalité et construction présentative en français et en chinois. Proceedings of the conference *La perception en discours* at Strasbourg university, June 21–24, 2023.
- Viberg, Åke (1984), The verbs of perception: A typological study. *Linguistics* 21: 123–63
- Viberg, Åke (2019), Phenomenon-Based Perception Verbs in Swedish from a Typological and Contrastive Perspective. *Syntaxe et sémantique* 1: 17–48.
- von Heusinger, Klaus & Schumacher, Petra B. (2019), Discourse prominence: Definition and application, *Journal of Pragmatics* 154: 117–27.

Perception constructions in Mongolic languages

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Keywords: Mongolic languages, complement clause types, immediate and cognitive perception

Intensive research on clausal complementation has shown that perception verbs often take several types of complements with differences in meaning. The most frequent contrast observed is between immediate perception vs. acquisition of knowledge, or mental/cognitive perception, based e.g. on inference: *He saw me coming* vs. *He saw that I came* (Givón 1980, Noonan 2007: 129, Cristofaro 2008: 575-6, Verhoeven 2007: 291 etc.)

In Mongolic languages there are two main types of complement clauses: the non-finite type with an action noun/participle and a case suffix as a complementizer, and the finite type with a complementizer on the base of the auxiliary SAY-verb (cf. Matić & Pakendorf 2013). An investigation of three corpora of Mongolic languages Buryat, Kalmyk, and Khalkha has shown that both types are used with perception verbs, but the contrast between them is not as straightforward: the latter does convey only cognitive perception, the former can express both immediate and cognitive perception.

The general complement clause pattern “participle + accusative” shows significant variability determined by semantic groups of matrix verbs: with cognition and utterance verbs there are no restrictions on participant coreference, time reference, and reality of the dependent proposition, hence the free choice of participles/action nouns, personal marking or negation. With verbs of immediate perception or intention the structure of the complement clause is practically fixed.

The construction of immediate physical perception has restricted temporal, modal and personal characteristics: ‘Our cognitive construal of perception is that the events we perceive happen at the same time as the perception’ (Gisborn 2010: 205), cf. ‘time reference dependency’ (Noonan 2007: 102); an ‘activity complement clause’ has fewer possibilities of marking TAM, negation and person (Dixon 2006). The perceived event must be encoded as real, taking place simultaneously with the perception but with different participants (self-perception in my data is not attested and constructed examples were not approved by consultants). It means that the accusative construction with immediate perception verbs allows only different-subject realizations, the fixed simultaneity form and no negation in the dependent clause predicate. The form used here is the future participle in -x (in its second meaning of general simultaneity); in Khalkha and Kalmyk also the present participle in the meaning of actual simultaneity is possible:

(1) Buryat

<i>Butid</i>	<i>Tagar-ai</i>	<i>m’axa</i>	<i>sabša-x-iye-n’</i>	<i>xara-na</i>
B.	T.-GEN	meat	chop-PTCP.FUT-ACC-POSS.3SG	see-PRES[3SG]

‘Butid watches Tagar chopping meat.’

(2) Kalmyk

<i>Čamag</i>	<i>degr-i-m</i>	<i>unš-a-g</i>	<i>üz-žä-nä-v</i>
you:ACC	book-ACC-POSS.1SG	read-PTCP.PRES-ACC	see-PROG-PRES-1SG

‘I see you are reading my book.’

The absence of these formal restrictions (about 15% of my data) indicate that the perception verb is used in the meaning of knowledge acquisition with auditory/visual input of information, e.g. inference based on visual evidence with a past participle:

(3) Buryat

Ali tuxai yexe bayar-ai bolo-žo bai-h-iye-n' xara-na-bdi
 how big joy-GEN become-CVB be-PTCP.PAST-ACC-POSS.3SG see-PRES-1PL
 'We see (=understand), what a joy it is (lit. how big the joy has become).'

As for the second type of complement clauses, finite with a complementizer based on the SAY-verb (B. *ge-že*, K. *gi-ž*, Kh. *ge-ž* say-CVB, lit. 'saying'), they are used freely with verbs of hearing in the meaning of hearsay:

(4) Khalkha

Bi taniig Petersburg jav-na gež sons-son
 I you:ACC P. go-PRES COMP hear-PAST
 'I heard that you go to St. Petersburg.'

With verbs of visual perception in the meaning of inference they are ungrammatical in Kalmyk, but attested in Khalkha and Buryat:

(5) Khalkha

Bagš Dorž-iig shalgaltan-d una-laa gež üze-v
 teacher D.-ACC exam-DLOC fall-PAST COMP see-PAST

'The teacher understood (lit. saw, i.e. understood looking through the examination paper) that Dorzh failed the examination.'

This differentiation of Mongolic perception constructions can also be seen as evidential-like opposition between a firsthand and a non-firsthand information source (present in evidential systems of these languages).

References

- Cristofaro, Sonia (2008), A constructionist approach to complementation: evidence from Ancient Greek, *Linguistics* 46–3 (2008), 571–606.
- Dixon, R.M.W. (2006), Complement clauses and complementation strategies in typological perspective, in R.M.W. Dixon and A.Y. Aikhenvald (eds.), (2006), *Complementation. A cross-linguistic typology* (Explorations in Linguistic Typology 3), Oxford: Oxford University Press, 1 – 48.
- Gisborn, Nicolas (2010), *The event structure of perception verbs*, Oxford University Press: New York.
- Givón, Talmy (1980), The Binding Hierarchy and the Typology of Complements, *Studies in Language*, 4, 333–77.
- Givón, Talmy (2001 [1990]), *Syntax*, Amsterdam/Philadelphia: Benjamins.
- Matić, Dejan and Brigitte Pakendorf (2013), Non-canonical SAY in Siberia: Areal and genealogical patterns, *Studies in Language*, 37, 2, 356–412.
- Noonan, Michael (2007 [1995]), Complementation, in Timothy Shopen (ed.) (2007 [1995]), *Language typology and syntactic description, vol 2: Complex constructions*, Cambridge: Cambridge University Press, 52-151.
- Verhoeven, Elisabeth (2007), *Experiential constructions in Yucatec Maya: a typologically based analysis of a functional domain in a Mayan language*, Amsterdam [u.a.]: Benjamins.

On the directional encoding and conceptualization of perceptual events: The case of English and Russian

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Keywords: visual and auditory events, sensory path, manner of sound motion, verticality of a gaze, satellite-framed languages

Among studies on sensory language, there has been an increasing interest in spatial encoding of visual experiences. For instance, it has been observed that visual events are expressed via directional forms (1) in Indo-European (Cappelle, 2020), Uralic (Huomo, 2010), Tai–Kadai (Takahashi, 2000), Austroasiatic (Wnuk, 2022) and Mayan (Craig, 1993) languages.

(1) *Hunter looked into his eyes reassuringly.*

Meanwhile, motion encoding of auditory experiences as well as that of two or more senses in inter-modal comparative perspective remains understudied. Hence, the present paper investigates linguistic directional expression of both visual and auditory events. I will explore data from English and Russian, two languages previously reported to share similarities in the ways they convey motion (e.g. Slobin, 2005).

To explore the spatial framing of perceptual events, I adopt the notion of *sensory path* and assume that such events involve “two entities, the Experiencer and the Experienced, and [...] something intangible moving in a straight path between them in one direction or the other” (Talmy, 2000: 115). The paper aims at analyzing (i) distribution of directionality patterns (Experiencer → Experienced vs. Experienced → Experiencer) across the two sensory modalities and (ii) lexicalization patterns (in the sense of Talmy (2000)) of sensory path and manner in the two languages.

For this study, I built a parallel corpus of contemporary novels belonging to various literary genres (e.g. crime fiction, fantasy, science fiction). For each language there are two original texts as well as two translated texts (rendered from the other language). In contrast to most previous studies on sensory path, I didn't limit the working corpus to tokens with dedicated perception predicates (1), but extended my search to any constructions encoding Experiencer and/or Experienced ((2); (3)).

(2) *A soft rustling seemed to be coming from up ahead.*

(3) *The thin man threw Artyom an angry look.*

Regarding lexicalization patterns, the following inter-linguistic differences have been observed: (i) Russian attests a verb with specialized semantics of sound motion (*donositsja* ‘carry oneself towards’), while in English the motion of sounds is mostly expressed by a semantically more general deictic verb *come* (2). The extensive usage of *come* correlates with the fact that in English the manner of sound motion is frequently left unspecified. In Russian the availability of the goal-oriented prefix *do-* (‘towards’) allows expression of manner in the verb root (as in *zvuki doletali* ‘sounds were flying towards [me]’) which may explain why manner information is more salient across the Russian corpus; (ii) English frequently allocates attention to vertical visual path (as in *he looked up at the sky*), while Russian is less sensitive to it, possibly due to the relative complexity of a V+N construction available to express verticality of a gaze (as in *on podnjal glaza na nebo* ‘he raised his eyes to the sky’).

As for directionality patterns, in both languages visual events are predominantly conceptualized following the Experiencer → Experienced path ((1), (3)). On the other hand, auditory events mostly follow the Experienced → Experiencer pattern (2). I hypothesize that the fact that the Experiencer is represented either as source or as goal of motion may be explained by the different

physiological degree of control over the stimuli in vision and hearing. The visual experiencer can select a stimulus by moving their eyes, whereas the auditory experiencer is less agentive in this regard, thus being conceptualized as a 'receptacle' of sound.

References

- Cappelle, B. (2020). Looking into visual motion expressions in Dutch, English, and French: How languages stick to well-trodden typological paths. In Y. Matsumoto & K. Kawachi (eds.), *Broader Perspectives on Motion Event Descriptions*, 235-280. Amsterdam/Philadelphia: John Benjamins.
- Craig C., 1993, Jakaltek directionals: their meaning and discourse function, *Languages of the World 2*, Lincom Europa, p. 23-36.
- Huumo, T. (2010). Is perception a directional relationship? On directionality and its motivation in Finnish expressions of sensory perception. *Linguistics*, 48(1), 49-97.
- Slobin, D. (2005). Relating narrative events in translation. In D. Ravid & H. Shyldkrot (eds.), *Perspectives on language and language development: Essays in honor of Ruth A. Berman*, 115-129. New York: Springer
- Takahashi, K. (2000). *Expressions of emanation fictive motion in Thai*.
https://scholar.google.com/scholar_lookup?title=Expressions+of+emanation+fictive+motion+events+in+Thai&author=Takahashi+Kiyoko&publication+year=2000
- Talmy, L. (2000). *Toward a cognitive semantics*. Cambridge, MA: MIT Press.
- Wnuk, E. (2022). Ways of looking: Lexicalizing visual paths in verbs. *Journal of Linguistics*, 58(1), 157-202.

Indonesian taste and touch verb *rasa*, which also means ‘to feel’ and ‘to think’: A behavioral profile analysis

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Keywords: Indonesian perception verb, polysemy, semantic extensions, behavioral profile analysis, cluster analysis

Perception verbs can undergo intrafield or transfield extensions (Viberg 1983; San Roque et al. 2018). The former involves extensions within the domain of perception, while the latter extends into the domain beyond perception, such as cognition. The paper focuses on the Indonesian perception verb from the “lower sense” denoting taste and touch, with semantic extensions into the domains of thinking and feeling. The core meaning of the root *rasa* is ‘taste’ (Stevens & Schmidgall-Tellings 2008; KBBI 2016). *Rasa* also encompasses the perception of touch in a broad sense (Winter 2019: 14–15). Furthermore, the Indonesian perception verb *rasa* signifying ‘to taste’ or ‘to touch’ extends semantically into the domain of cognition encompassing ‘to feel’ (1) and ‘to think’ (2) in terms of ‘to believe’ and ‘to opine’ (Jansegers & Gries 2017).

- | | | | | | | |
|-----|--|----------------|-----------------|---------------|-----------------------|---------------------|
| (1) | <i>Keluarga</i> | <i>Zaenal</i> | <i>me-rasa</i> | <i>curiga</i> | <i>dengan</i> | <i>kematian=nya</i> |
| | family | NAME | AV- <i>rasa</i> | suspicious | with | death=3S |
| | <i>yang</i> | <i>dinilai</i> | <i>tidak</i> | <i>wajar.</i> | | |
| | REL | considered | NEG | natural | | |
| | ‘Zaenal’s family felt suspicious about his unnatural death.’ | | | | | |
| | | | | | | |
| (2) | <i>Karena</i> | <i>jujur</i> | <i>saja</i> | <i>saya</i> | <i>rasa</i> | <i>yang</i> |
| | because | honest | only | 1S | <i>rasa</i> | REL |
| | <i>nama=nya</i> | <i>Badan</i> | <i>Anggaran</i> | <i>ada</i> | <i>otak-otak=nya.</i> | |
| | name=3S | agency | budget | EXIST | RED-brain=3S | |
| | ‘Because to be honest, I think that there are stooges (lit. brains) in the Budget Committee.’ | | | | | |

In contrast, other languages exhibit distinct patterns, with perception verbs linked to “higher senses” often carry cognitive meanings, as seen in English’s ‘to see’ (Sweetser 1990) and Australian auditory verbs (Evans & Wilkins 2000). The closely related meanings of ‘to feel’ and ‘to think’ conveyed by the Indonesian gustatory and haptic perception verb *rasa*, are rooted in the Indonesian cultural model that regards *rasa* as the cognitive faculty used to describe the “intuitive aspects of reality” (Stange 1984: 114). Using the Indonesian corpus from Leipzig Corpora Collection (ind_mixed_2013) containing 74,329,815 sentences and 1,206,281,985 tokens (Goldhahn et al. 2012), we examine the distribution of semantic domains for ten different verb forms based on *rasa*, categorizing them into COGNITION (including the sub-domains ‘to feel’ and ‘to think’) and PERCEPTION (including the sub-domains ‘to taste’ and ‘to touch’). The paper aims to explore the semantic properties of these ten different verb forms containing *rasa* using behavioral profile analysis (Divjak & Gries 2006) and cluster analysis (Levshina 2015: 301–321) for gaining insights into their categories and characteristics. We aim to answer the following research questions: (a) what is the internal structure of a cluster of the verb forms, (b) how can we distinguish the sub-clusters and the individual verb forms from each other, and (c) how can we pinpoint a prototypical situation conveyed by each verb form.

Our preliminary results show that different voices, with distinct constructions, convey varied meanings. For instance, the middle voice tends to express the domain of perception. The active voice is typically followed by an adjective conveying the domain of emotion, while the passive voice tends to convey the domain of cognition in the sense of opinion, like the zero (voice) prefix, usually followed by a subordinate sentence.

References

- Divjak, Dagmar & Stefan T. Gries. 2006. Ways of trying in Russian: clustering behavioral profiles. *Corpus Linguistics and Linguistic Theory* 2. 23-60.
- Evans, Nicholas & David Wilkins. 2000. In the mind's ear: The semantic extensions of perception verbs in Australian languages. *Language*. 546–592.
- Goldhahn, Dirk, Thomas Eckart & Uwe Quasthoff. 2012. Building large monolingual dictionaries at the Leipzig Corpora Collection: From 100 to 200 languages. In *Proceedings of the 8th Language Resources and Evaluation Conference (LREC) 2012*, 759–765.
- Jansegers, Marlies & Stefan T. Gries. 2017. Towards a dynamic behavioral profile: A diachronic study of polysemous sentir in Spanish. *Corpus Linguistics and Linguistic Theory* 16(1). 145–187.
- KBBI. 2016. Kamus Besar Bahasa Indonesia (Comprehensive Indonesian Dictionary). <https://kbbi.kemdikbud.go.id>. (15 January, 2023.)
- Levshina, Natalia. 2015. *How to do linguistics with R: Data exploration and statistical analysis*. Amsterdam: John Benjamins Publishing Company.
- San Roque, Lila, Kobin H. Kendrick, Elisabeth Norcliffe & Asifa Majid. 2018. Universal meaning extensions of perception verbs are grounded in interaction. *Cognitive linguistics* 29(3). 371–406.
- Stange, Paul. 1984. The logic of rasa in Java. *Indonesia* (38). 113–134.
- Stevens, Alan M. & A. E. Schmidgall-Tellings. 2008. Kamus Lengkap Indonesia-Inggris [A Comprehensive Indonesian-English Dictionary]. Bandung: PT Mizan Pustaka.
- Sweetser, Eve. 1990. *From etymology to pragmatics: Metaphorical and cultural aspects of semantic structure* (54). Cambridge University Press.
- Viberg, Åke. 1983. The Verbs of perception: a typological study in Explanations for Language Universals. *Linguistics* 21(263). 123–162.
- Winter, Bodo. 2019. Sensory linguistics. *Language, perception and metaphor*. Amsterdam & Philadelphia (Benjamins).

Perception-finding polysemy: Chukchi and beyond

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Keywords: perception, lexical typology, lexical semantics, verbs of finding, Chukchi

The verb *#ʔuk* ‘see’ in Chukchi (< Chukotka-Kamchatkan) demonstrates wide polysemy. In addition to the perceptual interpretation (1), it can be interpreted as ‘find’ (2).

(1) *#uut=e pʔompʔoŋə-t tə-#ʔu-ne-t #yi-nə-mkə-qin*
suddenly=PTCL mushroom-ABS.PL 1SG.S/A-see-3SG.O-PL INTS-ST-multiple-ST.3SG
‘I suddenly saw very many mushrooms.’

(2) *ɣəm-nin mane-josyə-n tejə#iŋə-tku-te ʔotsoj tə-#qərir-ɣʔe-n*
I-GEN money-CONT-ABS.SG group-ITER-INS for.long 1SG.S/A-search-TH-3SG.O
tejusyə-k ənkʔam tə-#ʔu-ɣʔe-n
bag-LOC and 1SG.S/A-see-TH-3SG.O
‘I groped for my wallet in the bag for long and found it.’

Noticeably, the interpretation of *#ʔuk* in (2) cannot be reduced to seeing, as groping for an object is incompatible with visual perception.

In the present study we focus on the polysemy of the semantic fields of perception and search/finding. This pattern of regular polysemy has been discussed in literature (San Roque et al., 2018), but the ways of how the areas within these two fields relate to each other is not extensively studied.

The aim of the study is twofold. Firstly, we characterize in detail the properties of the Chukchi verb *#ʔuk* in both interpretations. Secondly, taking Chukchi data as a starting point, we proceed to the general discussion of the relations between perception predicates and finding or searching.

The semantic field of finding in Chukchi can be classified as exhibiting a dominant system, that is, the verb *#ʔuk* covers most of the possible distinctions (discussed in Ryzhova et al. [2018]) within this field. The only case in which *#ʔuk* competes with other verbs is finding of animate objects (that is, meeting).

Among the visual perception verbs *#ʔuk* can be classified as the default verb for non-agentive visual perception. It cannot be used in non-visual perception contexts. One argument for non-agentivity of *#ʔuk* is that it cannot be in imperative form in perceptual meaning (3).

(3) *#qə-#ʔu-ɣʔe-n*
2.S/A.SUBJ-see-TH-3SG.O
‘Find (him)!’ / #‘Look (at him)!’

Turning to the wider typological point of view, non-agentivity of *#ʔuk* is crucially important with regard to its ‘see’/‘find’ polysemy. According to the database CLICS³ (Rzymiski et al., 2019), non-agentive concept SEE is regularly co-lexified with FIND, and agentive LOOK — with LOOK FOR, whereas the opposite is very rare. If excluded the cases in which ‘see’ and ‘look’ are co-lexified themselves, one can find almost one-to-one correspondence of two pairs of concepts (Table).

Table. Colexifications of visual perception and searching / finding

	SEE	LOOK
FIND	27	1
LOOK FOR	0	22

One can thus conclude that the Chukchi case is an instantiation of a more general principle of regular polysemy between the relation of verbs of non-agentive perception with finding and verbs of agentive perception with search.

Lastly, we hypothesize asymmetrical connection between perception, searching and finding verbs in diachronic perspective. For seeing and finding, it turns out to be difficult to find the direction of the semantic change. Turning back to Chukchi data, both meanings of *ʃʔuk* are present up to the level of Pra-Chukotko-Kamchatkan family (Mudrak 2000, Fortesque 2011). In contrast, one can regularly find that ‘look’ changes into ‘look for’ and not the other way around.

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References

- Fortescue, M. (2011). *Comparative Chukotko-kamchatkan dictionary* (Vol. 23). Walter de Gruyter.
- Mudrak, O. A. (2000). *Ėtimologičeskij slovar' čukotsko-kamčatskich jazykov* [Etymological dictionary of Chukotko-Kamchatkan languages]. (Studia philologica). M.: Jazyki russoj kul'tury.
- Ryzhova, D. A., Dobrushina N. R., Bonch-Osmolovskaya A. A., Vyrenkova A. S., Kyuseva M. V., Orekhov B. V., Reznikova T. I. (eds.). (2018). *EVRika! Sbornik statei o poiskakh i nakhodkakh k jubileju E. V. Rakhilinoi* [EVRika! Collected papers on searching and finding in honor of E. V. Rakhilina]. Moscow: Labirint.
- Rzymiski, C., Tresoldi, T., Greenhill, S. J., Wu, M. S., Schweikhard, N. E., Koptjevskaja-Tamm, M., ... & List, J. M. (2020). The Database of Cross-Linguistic Colexifications, reproducible analysis of cross-linguistic polysemies. *Scientific data*, 7(1), 13.
- San Roque, L., Kendrick, K., Norcliffe, E. & Majid, A. (2018). Universal meaning extensions of perception verbs are grounded in interaction. *Cognitive Linguistics*, 29(3), 371-406.

On the lexical and grammatical expression of perception: A corpus-based study of English and Tibetan

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Keywords: evidentiality; English; Tibetan; perception; grammar-lexicon

This paper examines how expressing perception with a grammaticalized evidential system or with a predominantly lexical one offers different possibilities in conversation. It is based on a contrastive corpus of Lhasa Tibetan (TSC; 4 pairs of Lhasa Tibetan native speakers, approx. 4 h. / 26,000 words) and English (CSC/LAC; 11 pairs of Standard British and American English native speakers, approx. 4 h. / 39,500 words). Tibetan possesses a multi-term evidential paradigm which prevails when referring to perceptions, while the English rendering of this domain is mainly lexical (Tournadre 2017, Whitt 2011, Mélac 2014, 2022). I will examine how inflections may compete with perception verbs in Lhasa Tibetan, and what may be the limits of the largely lexical system of English.

First, the corpus indicates that Tibetan speakers refer to perception on average 7 times more frequently than English speakers. This is mainly due to the high frequency of direct perception inflections in Tibetan (42,846 instances per million words), while English speakers rarely specify whether they have directly perceived the event they are referring to (1,579 pmw). The frequency gap is narrower when perceptions are associated with inferential processes, as these are almost as explicitly encoded in English (e.g., *looks like*, *must*, or *I guess*) as in Tibetan (e.g., *-pa 'dra*, *bzo 'dras*, or *mdog kha po*). Secondly, because the expression of perception is more lexical in English, speakers are compelled to be more specific when referring to this semantic domain. A grammatical morpheme such as Lhasa Tibetan *'dug* may refer to all the senses as long as the speaker has directly perceived the event. The English equivalents of *'dug* will usually involve verbs denoting a specific sensory channel, such as 'see' for visual sensations, 'hear' for auditory sensations, etc. Thirdly, the existence of grammatical and lexical evidentials in Tibetan provides more options in terms of informational status (Boye & Harder 2012, Mélac 2023, Boye 2023). Tibetan speakers may use a perception verb to draw attention to their sensations or an evidential inflection to make the perceptual aspect of the situation less noticeable. On average, the tools available in English to encode perception are more foregrounded, and do not offer such a range of attentional prominence for several reasons, notably their higher variety, semantic granularity, optionality, and morpho-phonetic complexity. However, we will see that Lhasa Tibetan does not seem to display the lexical richness of English when referring to perception. English has developed constructions that are absent in Tibetan, such as the various complementation of perception verbs (e.g., *see + finite clause / + gerund / + bare infinitive clause*), or the series of perceptual copulas (*look / sound / feel / taste / smell + adjectival phrase*). All these contrastive data confirm that, although languages develop profoundly different ways to encode perception, this semantic domain deeply impacts their structures, whether they possess a grammatical evidential paradigm or not.

References

- Boye, Kasper & Peter Harder (2012), A usage-based theory of grammatical status and grammaticalization, *Language* 88(1), 1–44.
- Boye, Kasper (2023), Evidentiality, discourse prominence and grammaticalization, *Studies in Language* 48(3), 575–607.

- Mélaç, Eric (2014), *L'évidentialité en anglais-approche contrastive à partir d'un corpus anglais-tibétain*, Diss. Université Sorbonne Nouvelle - Paris 3.
- Mélaç, Eric (2022), The grammaticalization of evidentiality in English, *English Language & Linguistics* 26(2), 331–359.
- Mélaç, Eric (2023), The pragmatic differences between grammatical and lexical evidentiality: A corpus-based study of Tibetan and English, *Journal of Pragmatics* 210, 143–156.
- Tournadre, Nicolas (2017), A typological sketch of evidential/epistemic categories in the Tibetic languages, in L. Gawne & N. W. Hill (eds.), (2017), *Evidential Systems of Tibetan Languages*, Berlin: De Gruyter Mouton, 95–129.
- Whitt, Richard J. (2011), (Inter)Subjectivity and evidential perception verbs in English and German, *Journal of Pragmatics*, 43(1), 347–360.

Transfield semantic shifts in the perception verb system in Khoekhoe (Khoe-Kwadi)

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The present study is dedicated to the analysis of the semantic extensions of PERCEPTION verbs in Khoekhoe, a Khoe language of the Khoe-Kwadi family primarily spoken in Namibia. The main research question addressed is how the Khoekhoe language expresses the possible meaning extensions of the semantic field of perception and which strategies for encoding perception it uses. In this study we start from typological data on possible semantic extensions of PERCEPTION, see the Database of semantic shifts in languages of the world, see Zalizniak (2018, 2021), then check if they are expressed in Khoekhoe and how.

For the investigation of semantic extensions we use the notion "semantic shift" defined as a "cognitive proximity between two meanings" realized in "synchronic polysemy, diachronic semantic evolution, morphological derivation, cognates or borrowings" (Zalizniak 2018: 773). We consider the cases of semantic shifts attested typologically and the lexicon of PERCEPTION in Khoekhoe in search for their realizations.

Previous studies on a number of underdocumented Khoe languages spoken by former hunter-gatherer communities suggest that these languages show cross-linguistically uncommon behavior of the TASTE modality, with a large number of dedicated taste verbs and a high degree of specificity of their meaning, see Nakagawa (2012) on the |Gui-||Gana dialect cluster. In another study based on the data of the genealogically related Khwe and ||Ani languages the "holistic" view on perception is suggested (Brenzinger and Fehn 2013). The main verb for the lower modalities ('taste', 'touch' and 'smell') in Khwe has the basic meaning 'perceive food', it develops the transfield semantic extension towards the cognitive domain in contrast to the majority of languages, where instead verbs 'see' and 'hear' develop such extensions (see Viberg 1984, 2001, 2019; Evans and Wilkins 2000; Majid et al. 2018).

In this paper we consider how far this cross-linguistically unusual patterns are attested in Khoekhoe, a closely related Khoe language traditionally spoken by pastoralists and not by hunter-gatherers. We explore the Khoekhoe data covering basic sense modalities in search for semantic shifts and examine their patterns. The attested extensions include TO LISTEN > TO PAY ATTENTION (realized in the polysemous verb *!gâ*); TO HEAR > TO UNDERSTAND (realized in the polysemous verb *||nâu*); TO HEAR > TO OBEY (realized in the compound *||nâu|nam* 'to hear' + 'to love'); TO HEAR > HEARSAY (realized in the conversion *||nâub*); TO HEAR > INTEREST (realized in the derivation *||nâudûraxasib* from 'to hear' + 'desire'); TO LOOK > TO OBSERVE (realized in the polysemy of *kô*); TO TOUCH > TO MOVE EMOTIONALLY (realized in polysemy of *tsâ||khâ*); TO TASTE > PLEASURE (realized in the derivation *||khoaxasib*).

The analysis of semantic shifts and the underlying metaphors where they are involved (see Speed et al. 2019), gives us information about the correspondence of source semantics and its expression in Khoekhoe, including the synexpression patterns following the terminology from Haspelmath (2023). The study is based on a corpus of both spoken and written Khoekhoe supplemented by dedicated elicitations of perception scenarios with the help of video clips of situations of perception.

References

Brenzinger, Matthias & Anne-Maria Fehn. 2013. From body to knowledge: perception and cognition in Khwe-||Ani and Ts'ixa. In Alkhenvald Alexandra Y. & Anne Storch (eds.), *Perception and cognition in language and culture*, 161-191. Leiden: Brill.

- Evans, Nicholas & David Wilkins. 2000. In the Mind's Ear: The Semantic Extension of Perception Verbs in Australian Languages. *Language* 76(3). 546-592.
- Haspelmath, Martin. 2023. Coexpression and synexpression patterns across languages: comparative concepts and possible explanations. *Frontiers in Psychology*, 14. 1-12.
- Majid, Asifa; Roberts, Seán G.; Cilissen, Ludy; Emmorey, Karen; Nicodemus, Brenda; O'Grady, Lucinda; Woll, Bencie; LeLan, Barbara; de Sousa, Hilário; Cansler, Brian L.; Shayan, Shakila; de Vos, Connie; Senft, Gunter; Enfield, N. J.; Razak, Rogayah A.; Fedden, Sebastian; Tufvesson, Sylvia; Dingemanse, Mark; Ozturk, Ozge; Brown, Penelope; Hill, Clair; Le Guen, Olivier; Hirtzel, Vincent; van Gijn, Rik; Mark A. Sicoli & Stephen C. Levinson. 2018. Differential coding of perception in the world's languages. *Psychological and Cognitive Sciences*, 45(115). 11369–11376.
- Nakagawa, Hiroshi. 2012. The importance of TASTE verbs in some Khoe languages. *Linguistics* 50(3). 395–420.
- Speed, Laura J.; O'Meara, Carolyn; Lila San Roque & Asifa Majid (eds.). 2019. *Perception Metaphors*. Amsterdam: John Benjamins Publishing Company.
- Viberg, Åke. 1984. The verbs of perception: A typological study. In Butterworth Brian L., Bernard Comrie & Östen Dahl, *Explanations for Language Universals*, 123–162. Berlin: Mouton de Gruyter.
- Viberg, Åke. 2001. Verbs of perception. In Martin Haspelmath, Ekkehard König, Wulf Oesterreicher & Wolfgang Raible (eds.). *Language typology and language universals: An international handbook*, 1294–1309. Berlin & New York: Walter de Gruyter.
- Viberg, Åke. 2019. Phenomenon-Based Perception Verbs in Swedish from a Typological and Contrastive Perspective. *Syntaxe et sémantique* 20 (1). 17-48.
- Zalizniak, Anna A. 2018. The Catalogue of Semantic Shifts: 20 Years Later. *Russian Journal of Linguistics*, 22(4). 770-787.
- Zalizniak, Anna A. 2021. Cognitive Mechanisms of Semantic Derivation in the Domain of Visual Perception. In: Velichkovsky, B.M., Balaban, P.M., Ushakov, V.L. (eds.). *Advances in Cognitive Research, Artificial Intelligence and Neuroinformatics. Intercognsci 2020. Advances in Intelligent Systems and Computing*, 1358. Springer, Cham.

A semantic map for ideophones and its application to Middle Chinese poetry

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Keywords: ideophone, sensory words, depiction, semantic map, onomatopoeia

The last decade has seen a number of important advances regarding the sensory typology of ideophones, such as Dingemanse’s (2012) implicational hierarchy, which contains the following sensory domains: SOUND < MOVEMENT < VISUAL PATTERNS < OTHER SENSORY PERCEPTIONS < INNER FEELINGS AND COGNITIVE STATES. This hierarchy has been very influential (see overview in Van Hoey 2024) yet not without challenges in the adaptation to language-particular ideophone inventories. Such challenges include (a) the actual domains to be included—the five Aristotelian senses or also other domains such as proprioception, pain, evaluation etc.; (b) the ordering of such domains, e.g., McLean (2020) finds TEXTURE to be highly salient in Japonic ideophones next, proposing the hierarchy SOUND < MOVEMENT < FORM < TEXTURE < OTHER SENSORY PERCEPTIONS; (c) the representation of multisensoriality, e.g., Nuckolls (2019) proposes a language-specific model for Quechua ideophones that highlights how sensory domains cluster together.

The representation that fits these three challenges best takes the form of a semantic map (Van Hoey 2024) that contains macrodomains (SOUND, VISION, SOMATOSENSATION, INNER SENSES) and microdomains (HUMAN, ANIMATE, INANIMATE, MOVEMENT, CONFIGURATION, POSITION, SIZE, SHAPE, BRIGHTNESS, COLOR, PAIN, TEMPERATURE, KINESTHESIA, TOUCH, SMELL, TASTE, INNER FEELINGS, EVALUATION, TIME). These domains have all been found in ideophone inventories of the world’s languages). This paper introduces that semantic map and its application to a historical corpus of Middle Chinese poetry, highlighting (a) which domains are found in the corpus, (b) their ordering in terms of prominence (Figure 1), and (c) which domains are often present expressed together (“synesthetic metaphor”, see Williams 1976). The semantic map provides a flexible way of representing language/genre-particular ideophone usage in a manner that also allows cross-linguistic comparison.

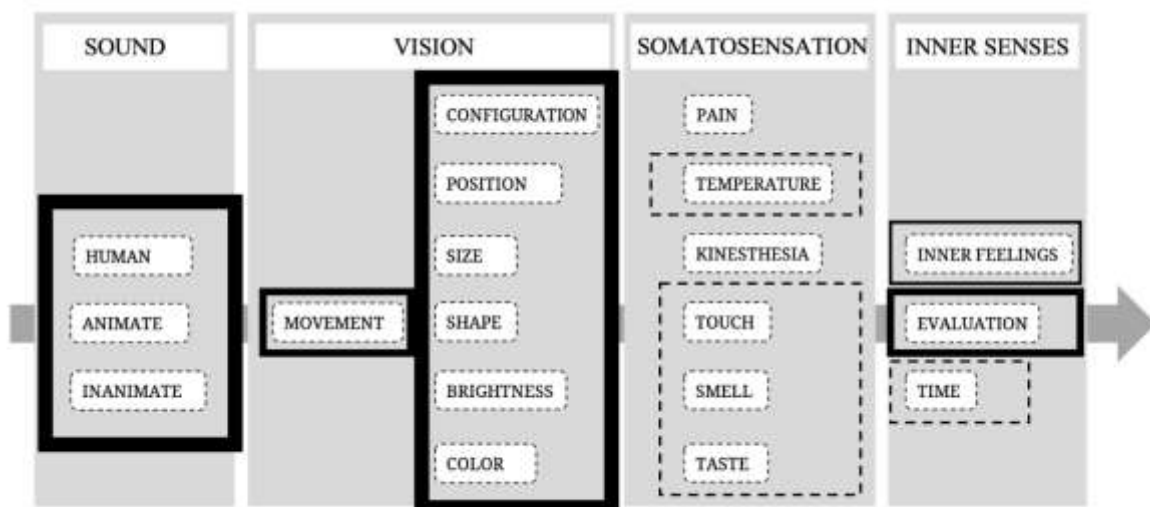


Figure 1. Prominence of sensory domains in Middle Chinese poetry

References

- Dingemanse, Mark. 2012. Advances in the cross-linguistic study of ideophones. *Language and Linguistics Compass* 6(10). 654–672.
- McLean, Bonnie. 2020. Revising an implicational hierarchy for the meanings of ideophones, with special reference to Japonic. *Linguistic Typology* 25(3). 507–549. <https://doi.org/10.1515/lingty-2020-2063>.
- Nuckolls, Janis B. 2019. The sensori-semantic clustering of ideophonic meaning in Pastaza Quichua. In Kimi Akita & Prashant Pardeshi (eds.), *Ideophones, mimetics and expressives* (Iconicity in Language and Literature, ILL 16), 167–198. Amsterdam: John Benjamins.
- Van Hoey, Thomas. 2024. A semantic map for ideophones. In Thomas Fuyin Li (ed.), *Handbook of Cognitive Semantics: Vol 2*, 129–175. Leiden: Brill.
- Williams, Joseph M. 1976. Synaesthetic adjectives: A possible law of semantic change. *Language* 52(2). 461–478.

Perception verbs and evidentiality

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Keywords: evidentiality, epistemicity, perception verbs, Uralic languages, grammaticalization

The aim of the presentation is to explore the grammaticalization of perception verbs to express evidentiality and epistemicity in the Uralic languages. In the majority of the Uralic languages, there are morphosyntactic means of coding evidentiality (these markers typically originate from non-finite forms) (Skribnik – Kehayov 2018), therefore, other strategies of lexical origin in these languages have not yet been focused on. In our presentation, we will discuss perception verbs as a source for the grammaticalization of evidentials.

It is a well-attested phenomenon that perception verbs are frequent subjects of grammaticalization. They may develop into fully grammaticalized markers as well as lexical ones, e.g. particles and adverbials (Matlock 1989). Furthermore, in languages that lack morphosyntactic marking of the information source, perception words are a frequent source of evidential strategies (cf. Aikhenvald 2004: 273). The relatively common evidential use of perception verbs can be traced back to the generic-level metaphor KNOWING IS SEEING or, in a broader interpretation, KNOWLEDGE IS PERCEPTION (Matlock 1989: 222).

The evidential/epistemic use of perception verbs can be attested in several Uralic languages, e.g.:

Hungarian	<i>láthatóan</i> 'apparently, evidently'	← <i>lát</i> 'to see'
Finnish	<i>kuulemma</i> 'allegedly'	← <i>kuulla</i> 'to hear'
Estonian	<i>(silm)nähtävält</i> 'apparently'	← <i>nägemä</i> 'to see'
North Sámi	<i>gul</i> quotative particle	← <i>gulla</i> 'to hear'
Udmurt	<i>šödske</i> 'seems to'	← <i>šödiške</i> 'to feel'
Erzya	<i>mařavi</i> 'probably'	← <i>mařavoms</i> 'to sound, to feel'
Meadow Mari	<i>koješ</i> 'it seems to'	← <i>kojaš</i> 'to look'

In connection with this, we attempt to answer the following questions:

1. Which evidence types are typically expressed through perception verbs? (cf. Whitt 2010)
2. Is there a tendency regarding the grammaticalization of a specific perception verb to express a specific evidence type (e.g. verbs of auditory perception to reportative evidentials)? (cf. Whitt 2010)
3. What is the role of activity in terms of perception verbs? (cf. Viberg 1984)
4. Is there any connection between the intrafield polysemy of perception verbs and grammatical evidential systems?
5. Is there any connection between the frequency and use of epistemic-evidential markers and the existence of grammatical evidentiality in a given language?

According to our results, the evidence type of inference and reportativity are typically expressed via perception verbs. In connection with this, perception verbs typically grammaticalize into epistemic-

inferential and reportative markers. Perception verbs related to SEEING are prone to grammaticalize to mark inference, while verbs related to HEARING typically grammaticalize to mark reportative or quotative evidence. Verbs related to other types of perception, especially with the meaning ‘to feel’ are also connected to inference.

Considering the role of activity, it is clear that active perception verbs are neither subjects of grammaticalization of evidential markers nor sources of epistemic-inferential lexemes. This observation is in accordance with the nature of evidentiality as well as with evidence types as they are connected to non-volitional, undeliberate acquisition of information.

In our talk, we will illustrate our observations with a rich material of (primarily less-documented) Uralic languages.

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References

- Aikhenvald, Alexandra Y. (2004), *Evidentiality*, Oxford: Oxford University Press.
- Matlock, Teemie (1989), Metaphor and the grammaticalization of evidentials, in *Proceedings of the Fifteenth Annual Meeting of the Berkeley Linguistics Society, General Session and Parasession on Theoretical Issues in Language Reconstruction*, (1989), 215–225.
- Skribnik, Elena and Kehayov, Petar (2018), Evidentials in Uralic Languages, in A. Y. Aikhenvald (ed.), (2018), *The Oxford Handbook of Evidentiality*, Oxford: Oxford University Press, 525–555.
- Viberg, Åko (1984), The verbs of perception: a typological study, in B. Butterworth (ed.), *Explanations for language universals*, Berlin: Mouton, 123–162.
- Whitt, Richard J. (2010), *Evidentiality and Perception Verbs in English and German*, German Linguistics and Cultural Studies, Vol. 26, Frankfurt am Main: Peter Lang.

It ‘rises,’ ‘does,’ or ‘comes out’: expressions and conceptualizations of auditory, olfactory, and tactile perception in Ainu, Japanese, and Korean

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This paper explores typical nominal and verbal expressions of auditory, olfactory, and tactile perception based on Ainu-Japanese parallel texts (ILT 1984-1989) and their Korean translations. ‘Sound’ (*hum/oto/sori*) and ‘voice’ (*haw/koe/mogsori*), for example, are something that people ‘hear’ (*nu/kiku/deudda*) in Ainu, Japanese, and Korean, as in (1). These nominal and verbal vocabulary items are common to the languages but differ in how they are employed for specific discourse/pragmatic purposes. Japanese and Korean allow for both active (*kiita/deureosdda*) and passive[inchoative] (*kikoeta/deullyeosdda*) forms. However, the latter is more natural than the former if the speaker reports his or her perception. The former sounds more natural when the narrator describes a scene where a character experiences some auditory perception.

(1) A. *menoko sinotca haw a=nu.*

woman sing voice I=hear
‘I heard a woman singing.’

J. *zyosee-ga utau-koe-ga kikoeta [-koe-o kiita].*

woman-NOM sing-voice-NOM was.heard -voice-ACC heard

K. *yeoja-ga noraeha-neun mogsori-ga deullyeosdda [mogsori-reul deureosdda].*

woman-NOM sing-ADN voice-NOM was.heard voice-ACC heard

Ainu has onomatopoeic constructions with which the speaker reports what he or she finds through auditory perception, as in (2). It abounds in onomatopoeic verbs, many of which are employed in the constructions. Japanese and Korean lack such constructions though both are well-known for their wealth of onomatopoeias. This makes it difficult to translate the relevant Ainu examples into the two languages, where the verbs ‘hear’ and ‘do/come out’ are the only choices as translations of Ainu onomatopoeic verbs. These differences are not limited to lexico-grammatical aspects but also involve how auditory perception is conceptualized in each language.

(2) a. *pirakka us pe ek hum konna keuskeus.*

wooden.sandal put.on NMLZ come sound TOP rattle

‘It sounds like someone with sandals on coming with a rattling sound.’

b. *mina[nuwap] haw ko tesesatki.*

laugh[groan] voice TOP buzz

‘It sounds like tittering[groaning].’

Whereas auditory (and olfactory) perception can be conceptualized metaphorically (Yamanashi 2010), ‘sound/voice’ (and ‘smell’) are primarily something that ‘rises’ (*as/at*) in Ainu, ‘does’ (*suru*) in Japanese, and ‘comes out’ (*nada*) in Korean, as illustrated in (3). In (3a), neither *ki* ‘do’ nor *asin* ‘go

out' can replace *as* 'rise.' In (3b), both *tatta* 'rose' and *deta* 'came out' cannot replace *sita* 'did', and in (3c), *seossda* 'rose' and *haessda* 'did' cannot substitute for *nassda* 'came out.'

- (3) A. *rorunpuyar pok un tun sike osura hum as.*
 east.window bottom-to two:person load throw sound rise
 'I heard the two men throw down their backpacks at the bottom of the east window.'
- J. *higasimado-no-sita-e hutari-ga seoini-o dosunto nageotosu-oto-ga sita.*
 east:window-GEN-bottom-to two:man-NOM backpack-ACC bang
 throw.down-sound-NOM did
- K. *dongchang-mit-e duri-ga eobeu-n jim-eul kong naeri-neun sori-ga nassda.*
 east:window-bottom-to two:man-NOM carry-ADN load-ACC bang
 put.down-ADN sound-NOM went.out

This paper demonstrates that the formal diversity in the relevant expressions is partly attributed to the different conceptualizations of sound and voice in each language. It indicates that the dominant evidentiality system in Ainu also contributes to the diversity. The three languages, while having similar lexico-grammatical expressions, employ different expressions for some comparable discourse/pragmatic purposes.

References

- Institute of Language Teaching (ILT) (ed). 1984-1989. *Ainugo Onsei Shiryō* (Ainu language phonetic materials), Vols.1-6. Tokyo: Waseda University.
- Yamanashi, Masaaki. 2010. Metaphorical modes of perception and scanning: A comparative study of Japanese and English. In Armin Burkhardt and Brigitte Nerlich (eds.), *Tropical Truth(s): The Epistemology of Metaphor and Other Tropes*, 157-175. Berlin: De Gruyter.

Verbs of perception in Mankanya

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Keywords: Verbal morphology, verbal polysemy, perception verbs, Mankanya

This paper deals with the strategies of encoding perception in Mankanya (BAK, Atlantic, Niger-Congo), a minority language, originally spoken in Guinea Bissau, now spread to Senegal and Gambia. Mankanya is a strict SVO language, in which verbs are the central element of the clause, assigning a role to each of their complements. This study presents a synchronic and systematic description of the syntactic constructions encoding perception events, focussing on the verbs involved.

Considering the verbs encoding the five 'basic' senses (sight, smell, hearing, taste, touch), but also interoception (i.e. the sensitivity to inner physiological conditions) and proprioception (i.e. the sense of balance and body posture), I will start with Viberg's (1984) framework, dividing perception events into experiencer-based events (activity or experience), and source-based events (copulative). At this step, I will also compare Mankanya's constructions with the structures including experiencer in other Atlantic languages like Wolof (Becher 2003), Pulaar (Montébran 2021), Sereer-Siin (Tamba 2019), and in other African languages (Creissels 2019). However, I will further develop this distinction in terms of transitivity (Aikhenvald & Storch 2013: 20). In addition, I will consider the polysemy of physical perception verbs, exploring their semantic associations with mental perception (Vanhove 2008) like *p-win* "see, find" or *p-te* "hear, understand" (the prefix *p-* is the infinitive marker).

Based on data coming partly from published works on Mankanya (Trifkovič 1969, Gaved 2020) and from a dedicated questionnaire, this study aims to draw out the characteristics of the verbs of perception in Mankanya, addressing the two following main points:

- Sketch the semantic and grammatical features of the verbs of perception in the language (do they fit into Viberg's framework? How are experiencer constructions structured? Is the verb monomorphemic, or is the lexical meaning of the verb the result of the fusion of different morphemes?).
- Explore the polysemy of the verbs of perception (which are the possible associated meanings? How is the meaning selected? What does it show in terms of prevailing sense?).

References

- Aikhenvald, A. Y. & Storch A. 2013. Linguistic expression of perception and cognition: A typological glimpse. In: Aikhenvald A. Y., Storch A. (eds.), *Perception and cognition in language and culture*, pp.1-46. Leiden: Brill.
- Becher, J. 2003. "Experiencer constructions in Wolof", *Hamburger Afrikanistische Arbeits Papiere*, no 2, pp.1-89.
- Creissels, D. 2019. The encoding of experiencers in clauses denoting physiological states in Sub-Saharan languages. ALT Conference (Pavia). <http://www.deniscreissels.fr/public/Creissels-Exp.Subs.lang.pdf>
- Gaved, T. J. D. 2020. *A grammar of Mankanya. An Atlantic language of Guinea-Bissau, Senegal and the Gambia*. PhD Thesis, Leiden University, The Netherlands.

- Montébran A. 2021. "Lexique somatique et émotions en pulaar : la métaphore dans tous ses états" in Jacquet-Pfau C., Krylosova S. and Polguère A. (eds) *Cahiers de lexicologie 2021 – 2, n° 119 - Lexique et corps humain*.
- Tamba, K. 2019. The Syntax of experiencers in Sereer-Siin. *African linguistics across the disciplines*, 203.
- Trifkovič, M. 1969. *Le mancagne. Etude phonologique et morphologique*. Initiations et études africaines XXVI, Institut Fondamental d'Afrique Noire, Université de Dakar.
- Vanhove, M. 2008. Semantic associations between sensory modalities, prehension and mental perceptions. *From Polysemy to Semantic Change*, pp.341-370. Amsterdam/Philadelphia: John Benjamins Publishing.
- Viberg, Å. 1984. The verbs of perception: A typological study. In: Butterworth B., B. Comrie, Ö. Dahl, *Explanations for Language Universals*, pp.123-162. Berlin: Mouton de Gruyter.

Encoding auditory perception in language: New insights from speakers with visual disability

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Keywords: verbal description, auditory perception, machine perception, linguistic resource, blindness

This work has been supported by the research projects “Guided Audio Captioning for Complex Environments”, funded by Jane and Aatos Erkko Foundation, and “Using Language to Analyse Unstructured Data”, funded by Emil Aaltonen Foundation.

In an interdisciplinary research combining machine listening, signal processing, and linguistics, we have collected and analyzed written descriptions of sonic environments in order to fine-tune understanding of human acoustic analysis and to develop and train machine learning systems for acoustic analysis. In this talk, we present two datasets and report on their linguistic analyses (see Hekanaho et al. in prep.).

The audio data were recorded in public areas in European cities, thus representing Western everyday soundscapes (cf. Murray Schafer 1993) such as sounds produced by humans and vehicles. For a subcollection of 900 audio clips, we collected two datasets with Finnish language data by two groups of Finnish speakers: sighted adults (appr. 3,600 written descriptions) and adults with visual disability, most of whom have no functional vision (appr. 4,500 descriptions). The written descriptions are typically one-sentence long, and each audio clip was described by five different persons. We analyzed the data with corpus methods and qualitative content analysis, with a particular interest in defining linguistic resources and patterns in sound descriptions.

In our presentation, we report the key results of the analyses and discuss them in relation to some pressing issues regarding the expression of audio-sensory perception:

- Given that Western languages and cultures come with a more conventional ability to provide rich description of visual perception (e.g., Winter et al. 2018), we want to turn our focus to other sensory experiences and their verbalizations. What kind of grammatical and lexical strategies are employed, and what specific resources does the Finnish language offer? As regards linguistic strategies, a frequent lexical resource in Finnish descriptions seems to be expressive deverbal nouns (e.g., *kohina* ‘hum’; *säksätys* ‘clatter’) and a general tendency of nominalization instead of active predicates.
- Earlier research shows that blindness improves auditory abilities (e.g., Kolarik et al. 2020). Thus, we ask, what type of descriptions are produced by sighted and visually disabled individuals in our data? Our preliminary results indicate that the visually disabled participants encode certain content more elaborately than the sighted participants, for example presenting more specified interpretations of the sound source.
- Finally, what can machine learning for acoustic signal processing – or machine perception overall – “learn” from linguistic analyses, such as the ones conducted here? With our linguistic analysis, we produce new knowledge of, i.a., which sound sources are described specifically or foregrounded, and which are left unspecified or backgrounded. The interdisciplinary

methodology should also be developed to address human-machine concerns (e.g., Lake & Murphy 2023). There is also a need for using other languages as training data, as English has so far dominated language-based machine learning (van Miltenburg et al. 2017, see also Hekanaho et al. in press).

References

- Hekanaho, L., Hirvonen, M., Surakka, M. & Tuuri, E. In prep. What's in a description? Contrasting linguistic models and resources in the verbalisation of soundscapes.
- Hekanaho, L., Hirvonen, M. & Virtanen, T. In press. Language-based machine perception: Linguistic perspectives on the compilation of captioning datasets. *Digital Scholarship in the Humanities*.
- Kolarik, A. J., R. Raman, B. C. J. Moore et al. 2020. The accuracy of auditory spatial judgments in the visually impaired is dependent on sound source distance. *Scientific Reports* 10, 7169. <https://doi.org/10.1038/s41598-020-64306-8>
- Lake, B. M., and G. L. Murphy. 2023. Word Meaning in Minds and Machines. *Psychological Review*, 130(2), 401–431. <https://doi.org/10.1037/rev0000297>
- Miltenburg, E. van, D. Elliott, and P. Vossen. 2017. Cross-Linguistic Differences and Similarities in Image Descriptions. INLG 2017 – 10th International Natural Language Generation Conference, Proceedings of the Conference, 21–30. Retrieved from: <https://arxiv.org/pdf/1707.01736.pdf>
- Murray Schafer, R. 1993. *The Soundscape. Our Sonic Environment and the Tuning of the World*. Vermont: Destiny Books.
- Winter, B., M. Perlman, and A. Majid. 2018. Vision dominates in perceptual language: English sensory vocabulary is optimized for usage. *Cognition* 179, 213–220. <https://doi.org/10.1016/j.cognition.2018.05.008>

WS5 Epistemicity and
dialogue: How is
knowing negotiated in
conversation?

Modal verbs in question sequences in English TED Talks

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TED talks are a unique discourse type where the degree of dialogic interaction is undefined because the level of audience participation is completely up to the TED talk speaker. As a result, we see some TED talks which mimic that of dialogic interaction.

One of the principal goals of a TED talk is information exchange. Though the speaker controls the flow of the discourse, there is staunch evidence to suggest that TED presenters use dialogic devices to communicate their knowledge regarding a certain subject. For example, TED speakers frequently pose questions to the audience. Multiple questions in a row provide a structuring discursive device.

Patterns emerge regarding the type of modal verbs used to indicate the epistemic value of various propositions. For example, we see cases, as in (1), where the speaker uses hypothetical *would* in a directive speech act to prompt the audience to participate in the presentation.

- (1) How many here would say that Casey Martin does have a right to use a golf cart?
And how many say no he doesn't?

The goal of this paper is to examine how *would*, *should*, and *will* are used in epistemic and pragmatic ways in question sequences in English TED talks. This study relates to previous work on epistemic modality and information exchange and is informed by the findings of Ward et al., (2003), Arigne (2007), Birner et al., (2007), and Celle (2012; 2018). Importantly, the analysis of modal verbs in question sequences in TED talks provides interesting insight into the level of dialogic interaction which is possible in TED talks and how speakers use language to position themselves as experts in a subject while simultaneously opening up the presentational discourse to allow for audience interaction in the form of dialogic exchange.

Keywords: question sequences, modal verbs, monologic discourse, epistemicity, pragmatics

References

- Arigne, V. (2007). Grammaticalization, polysemy and iterated modality: The case of should. *Corela*, 5–1. [hPps://doi.org/10.4000/corela.343](https://doi.org/10.4000/corela.343)
- Birner, B. J., Kaplan, J. P., & Ward, G. L. (2007). Functional Compositionality and the Interaction of Discourse Constraints. *Language*, 83(2), 317–343. [hPps://doi.org/10.1353/lan.2007.0056](https://doi.org/10.1353/lan.2007.0056)
- Celle, A. (2012). Epistemic would: A marker of modal remoteness. *Faits de Langues*, 40(Ultériorité dans le passé, valeurs modales, conditionnel), 149–156.
- Celle, A. (2018). Epistemic evaluation in factual contexts in English. In Z. Guentchéva (Ed.), *Epistemic Modalities and Evidentiality in Cross-Linguistic Perspective* (pp. 22–51). De Gruyter. [hPps://doi.org/10.1515/9783110572261-002](https://doi.org/10.1515/9783110572261-002)
- Ward, G., Birner, B. J., & Kaplan, J. P. (2003). A pragmatic analysis of the epistemic would construction in English. In R. Facchinetti, F. Palmer, & M. Krug (Eds.), *Modality in Contemporary English* (pp. 71–80). DE GRUYTER. [hPps://doi.org/10.1515/9783110895339.71](https://doi.org/10.1515/9783110895339.71)

Conversational uses of shared knowledge markers in Amdo-Tibetan

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Keywords: Epistemicity, evidentiality, engagement, shared knowledge, Amdo Tibetan

Amdo Tibetan possesses a complex epistemic system (Ebihara 2019, Tribur 2017), where epistemicity is marked on the verb. The paradigms oppose morphemes falling into four notional domains: egophoricity, evidentiality, engagement categories (Evans et al. 2018), and evidentiality combined with epistemic modality (Tournadre & LaPolla 2014, Vokurková 2017). This presentation addresses the use of shared knowledge markers (Hintz & Hintz 2017), which, until now, have been largely left undocumented in the descriptions of Amdo Tibetan. The analysis is based on data collected in Xunhua, Rebkong and Sokdzong districts (Qinghai) and involves two types of interactions:

- (1) Adult-child and speaker-researcher interactions while looking at storyboards and textless picture-books.
- (2) Explanations to / discussions with the researcher on different culturally relevant topics (e.g., food recipes, religious practices, life experiences etc.). Although such speaker-researcher interactions were initially designed to elicit narratives, they often gave rise to conversations, in which the speaker took into account the researcher's supposed access to knowledge.

The first type of interaction corresponds to a shared access to visual information while the second corresponds to an exchange about culture-specific factual information, or speaker's personal knowledge. At the same time, both types of interactions typically involve asymmetric epistemic status of the speech-act participants because of their respective social position (Kamio 1994, Heritage 2012, Schultze-Berndt 2017, Grzech *et al.* 2020: 304-305). An unequal distribution of speech turns is also observed in the corpus.

Counter-intuitively, preliminary observation of the corpus indicates that markers of shared knowledge seem to occur more frequently in the second type of interactions than in the first one. The present analysis thus seeks to explore the following two questions:

- Are shared knowledge markers in Amdo Tibetan neutral for evidentiality or do they tend to express a factual rather than a perceptive access?
- In these specific discourse contexts, what kind of pragmatic parameters trigger the speaker's choice to use shared knowledge markers rather than markers related to specific evidential categories?

References

- Ebihara, Shiho. 2019. *Amudo-Tibettogo Bunpoo [A grammar of Amdo Tibetan]*. Tokyo: Hitutzi Syoboo
- Evans, Nicholas, Henrik Bergqvist & Lila San Roque. 2018. The grammar of engagement I: Framework and initial exemplification. *Language and Cognition* 10/1, p. 110–140.
- Grzech, Karolina, Eva Schultze-Berndt & Henrik Bergqvist. 2020. Knowing in interaction: an introduction. *Folia Linguistica* 54(2), 281–315.
- Heritage, John. 2012. Epistemics in Action: Action Formation and Territories of Knowledge. *Research on Language & Social Interaction* 45, 1–29.
- Hintz, Daniel J., & Hintz, Diane M. (2017). The evidential category of mutual knowledge in Quechua. *Lingua*, 186/187: 88–109.

- Kamio, Akio. 1994. The theory of territory of information: The case of Japanese. *Journal of Pragmatics* 21, 67–100.
- Schultze-Berndt, Eva. 2017. Shared vs. Primary Epistemic Authority in Jaminjung/Ngaliwurru. *Open Linguistics* 3: 178-218.
- Tournadre, Nicolas & Randy LaPolla. 2014. Toward a new approach to evidentiality: Issues and directions for research. *Linguistics of the Tibeto-Burman Area* 37: 2, 240–263.
- Tribur, Zoe 2017. Observations on factors affecting the distributional properties of evidential markers in Amdo Tibetan. In: Gawne & Hill 2017: 367–421.
- Tribur, Zoe. 2019. *Verbal Morphology in Amdo Tibetan*. PhD Thesis, University of Oregon. <https://scholarsbank.uoregon.edu/xmlui/handle/1794/25268>
- Vokurková, Zuzana. 2017. *Epistemic modality in Standard Spoken Tibetan: Epistemic Verbal endings and Copulas*. Karolinum Press: Prague.

The Syntax of Not Knowing: Marking surprise with Expressive Interjections in conversation

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Keywords: expressive interjections, surprise, common ground, conversation, interactional grammar

Expressive interjections are fundamental yet understudied interactional words that, in conversation, help in managing the common ground between interactants (Wiltschko 2021). In recent years, there has been growing consensus on characterizing them as particles that convey the speaker's attitude towards propositions or events (Ameka 1992; Dingemanse 2021; Ponsonnet 2023), and thus acting as propositional anaphors (Krifka 2013). However, much work is still needed to describe and analyse these particles, especially from a cross-linguistic point of view: what (if anything) is universal about these linguistic items and what constitutes the range and limits of variation. The present work aims to describe the function, content, and distribution of two expressive interjections in Chilean Spanish: *chuta*, and its taboo form, *chucha*, which are used by speakers to express negative surprise. To achieve this goal, three hundred occurrences of both forms were collected in X (a.k.a. Twitter), considering the interactional context in which they appear. The analysis was conducted using the next-turn proof procedure (Sacks, Schegloff and Jefferson 1974), focusing on the interjector's turn, and it involved manually annotating various categorical dimensions of the speaker's affective and epistemic stance towards the evaluated proposition: *emotive attitude* (positive/negative/neutral), *status of knowledge updating* (acceptance/rejection/uncertainty), *expectedness* (marks of surprise/no marks of surprise), and *proof of previous knowledge* (overt demonstration of knowledge/no demonstration). Preliminary results showed that both words are used to express the speaker's unawareness about the evaluated proposition and, more importantly, that it was unexpected to them, given their knowledge state before interaction-time. Furthermore, *chucha* expresses a stronger affective stance of negative valence than *chuta*. Additionally, the analysis showed that these words do not participate in the acceptance of the truth of the evaluated proposition, but this is done in conversation through other means of expression. Based on these findings I propose to model the function of *chuta* and *chucha* in terms of interactional grammar (Wiltschko 2021) which thus allows for a generalization and the formulation of several predictions: expressive interjections evaluate the novelty of propositions, but not their truthfulness; they can enter into compositionality with a finite number of other interactional particles in a specific linear ordering, which can be predicted by the unvalued spinal functions; the difference between expressive interjections hinges on the speaker's epistemic and emotive attitudes towards the evaluated proposition, stemming from their lack of awareness of it (as shown in Figure 1). With this work, I aim to explore how knowledge is shared and updated in conversation through interactional particles and what theoretical model can account for their function.

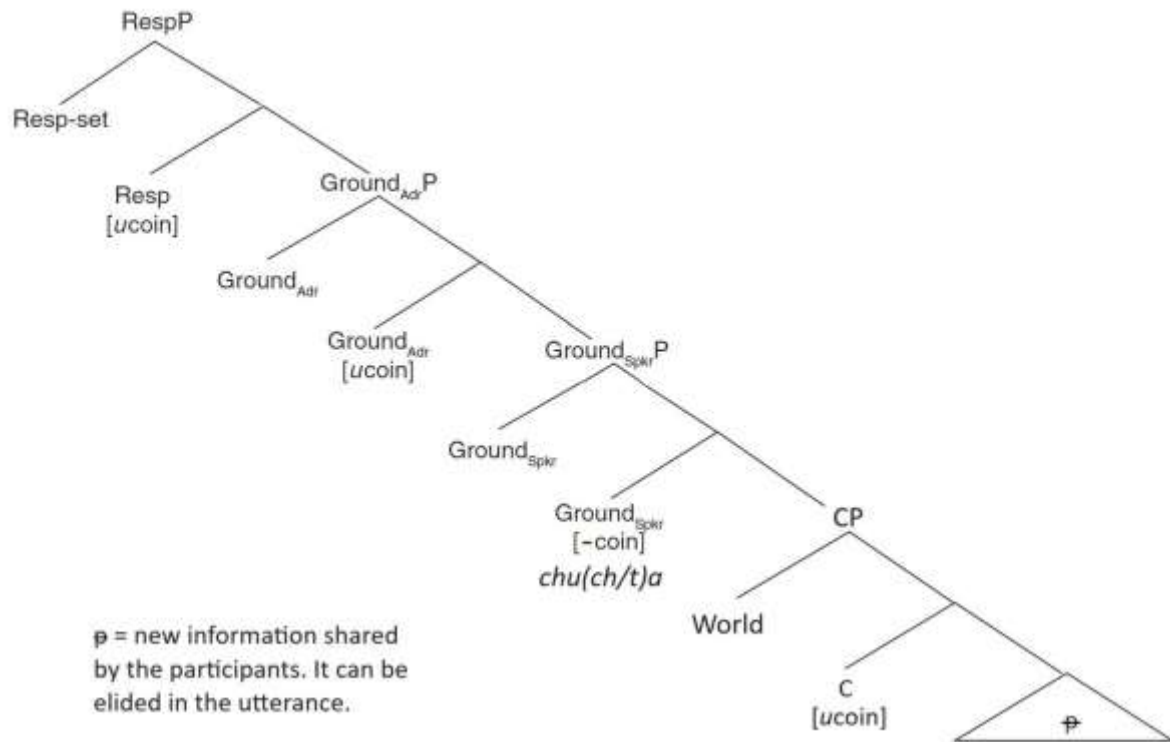


Figure 1. The syntax of *chuta* and *chucha* and the spinal functions with an unvalued coincidence feature where other units of language can be used.

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References

- Ameka, F. (1992). Interjections: The Universal yet Neglected Part of Speech. *Journal of Pragmatics*, 18, 101-118. [https://doi.org/10.1016/0378-2166\(92\)90048-G](https://doi.org/10.1016/0378-2166(92)90048-G)
- Dingemans, M. (2021). Interjections. In Eva van Lier (ed.), *Oxford Handbook of Word Classes*. <https://doi.org/10.31234/osf.io/ngcrs>
- Krifka, M. (2013). Response particles as propositional anaphors. *Proceedings of SALT 23*: 1 – 18.
- Ponsonnet, M. (2023) Interjections. In Claire Bower (ed.), *The Oxford Guide to Australian Languages*. <https://doi.org/10.1093/oso/9780198824978.003.0047>
- Sacks, H., Schegloff, E. A., & Jefferson, G. (1974). A Simplest Systematics for the Organization of Turn-Taking for Conversation. *Language*, 50(4), 696–735. <https://doi.org/10.2307/412243>
- Wiltschko, M. (2021). *The Grammar of Interactional Language*. Cambridge: Cambridge University Press. <https://doi.org/10.1017/9781108693707>

Short-term changes of *apparently* in conversation

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The present study was inspired by the observation that the evidential adverb *apparently* has increased its frequency over a relatively short time in present-day English. My aim is to investigate the changes reflected in the rising number of tokens of *apparently* in different linguistic and extralinguistic contexts. Specifically the present study represents a new departure with regard to the methodology used and the view on the definition of evidentiality.

The approach is to compare the frequencies and uses of *apparently* based on its occurrences in the British National Corpus (1994) and the Spoken BNC 2014 (Love et al. 2017) from a pragmatic perspective focusing on its functions in the evolving discourse. In previous research evidential expressions have mostly been analysed in semantics with respect to the type of source of information and certainty (the speaker's commitment to truth of the proposition) (Boye 2012). *Apparently* would, for example, be used to indicate that the information source is inference or hearsay depending on the context. From an interactional and pragmatic perspective, other evidential dimensions than information source are also important such as 'the ownership of knowledge' and the potential sharedness of knowledge between the speech participants. Bergqvist (2020) introduces the term engagement to refer to 'the notional domain that targets the epistemic perspectives of the speech-act participants, signaling differences in the distribution of knowledge and/or attention between the speaker and the addressee'. *Apparently* has engagement meaning when the speaker is involved in the event and wants to present the information as 'unsurprising' or given. A pre-condition is that the speaker has direct access to information about the causes of and types of event because it falls within his/her territory of information (Kamio 1997). The following example from the Spoken BNC 2014 illustrates this use:

yeah (.) it 's the driving (.) and it is it is really cool (.) and apparently I saw the thing the note on it (.) cos you think they 're faking it right ?

Apparently acquires engagement meaning especially when it occurs with a first person subject where both the inferential or hearsay meaning would be less likely. Specifically, the speaker uses *apparently* to evoke common ground rather than foreground the information in the clause introduced by *apparently*.

The preliminary findings from the comparable corpus investigation show that the rising frequency of *apparently* is due to its increasing use with the engagement function of targeting common ground in the Spoken BNC 2014.

The changes undergone by *apparently* over time are also sociolinguistic. The analysis of the sociolinguistic metadata provided by the corpora show that while most speakers using *apparently* in BNC 1994 are males, there are more female speakers using *apparently* in the Spoken BNC 2014. The motivations behind the increasing frequency of *apparently* in certain uses are changing discourse practices and the association of *apparently* with a particular 'social persona'.

References

- Bergqvist, H. 2020. Swedish modal particles as markers of engagement: Evidence from distribution and frequency. *Folia Linguistica* 54(2): 469-496.
- Boye, K. 2012. *Epistemic meaning. A cross-linguistic and functional-cognitive study*. Berlin/New York: Mouton de Gruyter.
- Kamio, A. 1997. *Territory of information*. Amsterdam/Philadelphia: John Benjamins
- Love, R., Dembry, C., Hardie, A., Brezina, V. and T. McEnery. 2017. The Spoken BNC2014 - designing and building a spoken corpus of everyday conversations. *International Journal of Corpus Linguistics* 22 (3):319-344.

Marking epistemic authority in Khalkha Mongolian

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Keywords: evidentiality, engagement, possession, addressee-centered demonstrative, sentence-final particle

In spoken Khalkha Mongolian, the most common device to negotiate the interlocutors' relative knowledge and authority is found in sentence-final, post-predicative position. There is a hierarchy of sentence-final particles (cf. Kang 2003, Brosig et al. 2019), starting from the most subjective "assertion particle" *jum* in Position 1 (Mizuno 1993, Mönx-Amgalan 1996), via "modal/evidential" particles in Position 2 and "engagement" particles (cf. Evans et al. 2018a, 2018b) in Position 3, to the clitic =*dAA* which presents a generic, objective third perspective (cf. Tantucci 2017) in Position 4. Examples for particles in these four positions are (1) *jum* 'I am personally convinced', (2) *baix* 'maybe', (3) *šüü* 'I know this better than you, take note', and (4) =*dAA* 'it is true irrespective of what we two might wish'. Some particles like *biz* 'I claim this, you approve it or challenge me' jointly occupy the Positions 2-3. Particles in Position 1-2 only combine with evidentially neutral participial verb forms. Evidential forms may combine with particles in Position 3 if they have compatible semantics, i.e. the participatory-sensory suffix *-IAA* and polar question clitic =*UU* form self-directed questions in *-I=UU* about events that the speaker-witness is not remembering properly (cf. Brosig 2018), while the inferential past suffix *-ž* and *šüü* don't normally combine. In interrogatives, both participatory-sensory *-IAA* and inferential *-ž(Ai)* can apparently either retain the speaker's perspective or assume the addressee's perspective, though this variation seems to be strictly tied to the type of construction that the morphemes occur in.

Additionally, Khalkha allows for marking the interlocutors' epistemic authority on noun phrases. First, the speaker can indicate familiarity with / epistemic authority over a referent by using the erstwhile second person possessive enclitic =*čin*. Using first person plural possessive =*maan* instead would indicate shared familiarity (Brosig et al. 2018). Other postponed possessive markers fulfill subjective evaluative, non-epistemic functions and express possession; pre-nominal forms express possession alone (Ševernina 1984, Mizuno 1993, Umetani's 2003). Secondly, Khalkha Mongolian has innovated two addressee-centered demonstratives from adpositions ('on the near/remote side of') in combination with =*čin*. In contrast to speaker-centered forms, these addressee-centered demonstratives have evidential implicatures (sensory access of the addressee to the referent if proximal, lack of access for distal). The addressee-centered distal form is also used by speakers to distance themselves from referents mentioned by or associated with their addressees (Brosig & Guntsetseg *under review*).

While the individual strategies of marking epistemic authority have previously been identified and described to a different extent, the interaction of different elements in finite predicates has only been addressed in terms of form, and epistemic noun phrase marking is entirely missing from the larger picture. Based on spoken corpus data (Zolžargal & Brosig 2012-2020), this presentation is meant to both give an

overview of different ways of marking epistemic authority in Khalkha Mongolian and to explore how they may collocate and interact with each other within the scope of a sentence.

References

- Brosig, Benjamin (2018), Factual vs. evidential? - The past tense forms of spoken Khalkha Mongolian, in A. Foolen, H. de Hoop, and G. Mulder (eds) (2018), *Empirical approaches to evidentiality*, Amsterdam: John Benjamins, 45-75.
- Brosig, Benjamin, Gegentana & Foongha Yap (2018), Evaluative uses of postnominal possessives in Central Mongolian, *Journal of Pragmatics* 135, 71-86.
- Brosig, Benjamin, Foongha Yap & Kathleen Ahrens (2019), Assertion, assumption and presupposition: an account of the erstwhile nominalizer YUM in Khalkha Mongolian, *Studies in Language* 43(4), 896-940.
- Brosig, Benjamin & Dolgor Guntsetseg (under review), From spatial noun to addressee-oriented demonstrative: Khalkha Mongolian *naa-d=čín* and *caa-d=čín*, *Journal of Historical Linguistics*.
- Evans, Nicholas, Henrik Bergqvist & Lila San Roque (2018a), The grammar of engagement I: framework and initial exemplification, *Language and Cognition* 10, 110-140.
- Evans, Nicholas, Henrik Bergqvist & Lila San Roque (2018b), The grammar of engagement II: typology and diachrony, *Language and Cognition* 10, 141-170.
- Kang, Sin (2003), Hyen.tay.mong.kol.e.uy yang.thay.chem.sa.ey kwan.han yen.kwu [A study of modal particles in Modern Mongolian], *Mongkolhak* 14, 21-52.
- Mizuno, Masanori (1993), Mongorugo no shozoku shōji [Possessive particles in Modern Khalkha Mongolian], *Bulletin of the Japan Association for Mongolian Studies* 22/23, 42-56.
- Mönx-Amgalan, Jumžirijn (1996), Mongol xelnij “JUM” gedeg ügijn üüreg-utgazüjn onclog [The functional and semantic peculiarities of the Mongolian word “jum”], in E. Rawdan, and M. Bazarragčaa (eds) (1996), *Mongol jar'aany xel*, Ulaanbaatar: Mongol Ulsiin Ix Surguul', 28-52
- Mukai, Shin-Ichi (2001), Mongorugo no shōten chōsei keishiki = On the focus of sentence in Mongolian, *Nihon Mongorugo Gakkai Kiyō = Bulletin of the Japan Association for Mongolian Studies* 31, 69-90.
- Ševernina, Zoja Vasil'evna (1984), Ob èkspressivno-stilističeskoj funkcii lično-pritjažatel'nyx častic v sovremennom mongol'skom jazyke [On expressional and stylistic functions of the personal possessive particles in Modern Mongolian], in A. Luvsandendev (ed) (1984), *Olon ulsiin mongolč erdemtnii IV ix xural*, 2nd vol., Ulaanbaatar: BNMAU Olon Ulsiin Mongolč Erdemtnii Ix Xurliin Baingiin Xoroo, 398-406.
- Tantucci, Vittorio (2017), From immediate to extended intersubjectification, *Language and Cognition* 9, 88-120.
- Umetani, Hiroyuki (2003), Mongorugo no nininshō shozoku shōji [The second person possessive particles in Mongolian], *Tokyo University Linguistic Papers* 22, 209-232.
- Zolžargal, Baasanžav & Benjamin Brosig (2012-2020 [created]), Corpus of spoken Khalkha Mongolian. Unscripted TV & private conversation. 20 hours, audio & textgrid files.

Epistemic authority and dialogue: A case study based on three German conversations

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Epistemicity in German has been extensively studied to date (see, e.g., Diewald, 2006, 2007; Leiss, 2012; Maché, 2019). However, much of the work has focused on the development and functions of German modal particles, verbs and adverbs as well as their combinatorial properties. While corpora have featured in the studies, extended dialogues have rarely formed the data base, and little is known about how knowledge is negotiated in dialogical exchanges.

In line with the workshop's interest in first-hand data containing dialogical exchanges, this presentation takes an in-depth look at three conversations in German that are part of the SCOPIC collection (Social Cognition Parallax Interview Corpus; Barth, 2009). In all three conversations, the participating speakers jointly carried out the same tasks of (i) describing 16 unknown pictures, (ii) sorting these pictures to form a story and (iii) narrating the story from different perspectives. The three speaker dyads differed: the first was an elderly married couple, the second a dyad of female friends, and the speakers of the third had never met before.

Knowledge negotiations comprise different aspects, as Stivers et al. (2011, p. 3) put so aptly: "At issue is whether we have epistemic *access* to some state of affairs, but also how *certain* we are about what we know, our relative *authority* and our differential *rights and responsibilities* with respect to this knowledge." This presentation focusses specifically on how epistemic authority is asserted and negotiated by the speakers in light of the unknown pictures and thus uncertain context as well as the different speaker constellations. It follows the dynamic development of epistemic authority throughout the conversations and shows how asymmetries (of varying degrees) in the establishment of epistemic authority can be observed in all three dialogic exchanges, and how these asymmetries are brought about.

References

- Barth, B. (collector). 2009. *Social Cognition Project*. Collection SocCog at catalog.paradisec.org.au [Open Access]. [hMps://dx.doi.org/10.4225/72/56E9769B1ADD9](https://dx.doi.org/10.4225/72/56E9769B1ADD9)
- Diewald, G. 2006. Discourse particles and modal particles as grammatical elements. In K. Fischer (ed.), *Approaches to discourse particles*, pp. 403–425. Brill.
- Diewald, G. 2007. Abtönungspartikel. In L. Hoffmann (ed.), *Handbuch der deutschen Wortarten*, pp. 117–142. De Gruyter Mouton.
- Leiss, E. 2012. Epistemicity, evidentiality, and theory of mind (ToM). In W. Abraham & E. Leiss (eds.), *Modality and theory of mind elements across languages*, pp. 39–66. De Gruyter Mouton.
- Maché, J. 2019. *How epistemic modifiers emerge*. De Gruyter Mouton.
- SKvers, T., Mondada, L., & Steensig, J. 2011. Knowledge, morality and affiliation in social interaction. In T. SKvers, L. Mondada, & J. Steensig (eds.), *The morality of knowledge in conversation*, pp. 3–24. Cambridge University Press.

The evidential bin and its role in language socialization

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Keyword: Evidentials, reportatives, socialization routines, pretend play, Yucatec Maya

Based on the assumption that evidentials play a crucial role in parents' coordination of children's attention (engagement) to their social and physical environment (Evans et al. 2017, and Fitneva 2018) we analyzed data from one longitudinal study of two Yucatec monolingual children aged between 2 and 3;6, and one cross-sectional study which includes the data from 18 children aged between 4 and 11 years.

Yucatec children do not appear to distinguish quotatives from reportatives as a source of information before 2;09 when the first evidence of their contrasting use typically emerges. As the reportative particle bin, not only indexes "it is said/hearsay" but also qualifies the evidential status of the uttered information, children need to acquire the various metapragmatic functions associated with it.

During early socialization routines, caregivers use the bin to reformulate and correct children's confusing expressions but mainly to reinforce an order or wish that the adults want to be complied with by the children. This usage aims to emphasize and reinforce what caretakers want them to socially achieve, teaching them shared responsibilities and collective involvement, often through commands. In this sense, socialization routines that incorporate the bin, guide Yucatec Maya children in interpreting their immediate contexts, which will later expand to encompass the broader social complexities entailed in the reportative. For example, pretend play provides one context for the usage of the reportative device among children aged 4 to 11, as their everyday life is closely intertwined with the broader cultural, linguistic, and social picture of adult life. They use bin not only to organize their pretend play but to coordinate attention and engagement in the game. The interactions in this context serve as exploratory practices that mirror adult work routines, requiring knowledge to coordinate and represent the systems they aim to replicate.

References

- Evans, Nicholas, Henrik Bergqvist and Lila San Roque, (2017), The grammar of engagement I: framework and initial exemplification, *Language and Cognition* 10(1), 110-140.
- Fitneva, Stanka, A. (2018), The Acquisition of Evidentiality, in A.Y. Aikhenvald (ed.) (2018), *The Oxford Handbook of Evidentiality*, 185-868. Oxford, UK: Oxford University Press.

Egophoric in Denjongke in contrast with some other Tibetic languages

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Keywords: evidentiality, egophoric, Tibetic, diachrony, intentionality

In recent years, the concept of egophoricity has received increased linguistic attention (e.g. Bergqvist & Kittilä 2019, and Floyd, Norcliffe & San Roque 2018), although the clarity of the whole concept has also been questioned (Hill 2020). This paper contrasts Denjongke, a Tibetic language spoken in Sikkim (India), with some other Tibetic languages, especially “Standard Tibetan” (Tournadre & Dorji 2003), showing that there is considerably variety in the uses of what have been called “egophoric” or “personal” forms. The comparison underlines the difficulty of defining what “egophoric” means even within Tibetic languages. Examples (1-4) illustrate two differences between Standard Tibetan and Denjongke. First, whereas in Standard Tibetan the egophoric construction *-pa.yin* is limited to uses with first person subject (1), in Denjongke the cognate personal form *-po í:* is often used with third person subjects (2).

Standard Tibetan

- (1) **nga-'i bu.mo-s mo.Ta btang-pa.yin*
I-GEN daughter-ERG car drive-PFV.EGO.INT
Intended meaning: ‘My daughter drove the car’ (Tournadre 2008: 297)

Denjongke

- (2) ཅུ་ཐོབི་ ལྷ་མཚན་ ཁོ་གིས་ ད་ལྟ་ ཅིག་གུ་ ཉ་གོ་བོ་ ཞིན།
ŋù-wø: gjumts^hɛ̃: k^hu=gi t'ato tɕiku hako-wo í:
weep-2INF.GEN reason 3SGM=AGT now only know-2INF EQU.PER
‘He understood the reason of (her) weeping only now.’ (Yliniemi 2021: 250)

Second, whereas in Standard Tibetan the future egophoric *-kiyin* cannot be used in expressions of inner sensation such as hunger (3), in Denjongke the corresponding form *-ɕɛ í:* is freely used for inner sensations (4). The reason for the difference is that in Denjongke, unlike in Tibetan, egophoric forms are disassociated from intentionality.

Standard Tibetan

- (3) **tō'-kiyin*
be.hungry-EGO.FUT
Intended meaning: ‘I will be hungry.’ (Nicolas Tournadre p.c.)

Denjongke

- (4) གལ་མེད་ ང་ ཟས་ མན་ཟ་ནེ་ ང་(ལོ) ལྷོད་པ་ ལྷོགས་ཤང་ ཞིན།
k'ɛ:si? ŋà sàm mǎn-za-nɛ ŋà(=lo) k'jɔp to:-ɕɛ í:
if 1SG food NEG-eat-COND 1SG(=DAT) stomach be.hungry-INF EQU.PER
‘If I do not eat, I will be hungry’ (fieldnotes)

The paper puts forth a hypothesis of and provides synchronic and diachronic evidence for an egophoricity cline which describes the evolution of the egophoric marker *yin* in Tibetic languages in the following way: Original marking of speaker’s personal knowledge is first reinterpreted as a requirement for the speaker’s involvement. Speaker’s involvement is then reinterpreted as a requirement for the first person to be

somehow syntactically present in the clause. In the light of the comparative data, the study also argues that in claiming egophoric as a “linguistic category”, more attention should be paid to what type of category is being meant. Do we refer to a Platonic type of universal (Hill 2012: 428-429), “descriptive utility” for “a wide range of languages” (DeLancey 2012: 559), a reality in the human cognition, a “descriptive category” used for particular languages (Haspelmath 2010), or a constructed “comparative concept” for crosslinguistic comparison of languages that vary in descriptive details (Haspelmath 2010). The overall approach is sympathetic to Haspelmath’s (2010: 663) view that “typology and language-particular analysis are more independent of each other than is often thought.” Finally, the paper shows that in Denjongke egophoric/personal markers and sensorial markers contrast in the same type of syntactic environment and gain part of their meaning from that very opposition, making it descriptively sensible to adopt Lapolla & Tournadre’s (2014: 240) definition of evidentiality, which subsumes egophoricity.

References

- Bergqvist, Henrik & Seppo Kittilä (eds.) (2019), *Evidentiality, egophoricity and engagement* (Studies in Diversity Linguistics 30), Berlin: Language Science Press. DOI: 10.5281/zenodo.3968344
- DeLancey, Scott (2012), Still mirative after all these years, *Linguistics Typology* 16(3): 529–564.
- Floyd, Simeon, Elisabeth Norcliffe & Lila San Roque (eds) (2018), *Egophoricity* (Typological Studies in Language 118), Amsterdam: John Benjamins.
- Haspelmath, Martin (2010), Comparative concepts and descriptive categories in crosslinguistic studies, *Language* 86(3), 663–687. <https://doi.org/10.1353/lan.2010.0021>
- Hill, Nathan W. (2012), ‘Mirativity’ does not exist: ḥdug in ‘Lhasa’ Tibetan and other suspects, *Linguistic Typology* 16(3), 389–433. <https://doi.org/10.1515/lity-2012-0016>
- Hill, Nathan W. (2020), Simeon Floyd, Elisabeth Norcliffe, and Lila San Roque: Egophoricity. *Linguistic Typology*, 24(1), 201–208. <https://doi.org/10.1515/lingty-2020-2035>
- LaPolla, Randy & Nicolas Tournadre (2014), Towards a new approach to evidentiality: issues and directions for research, *Linguistics of the Tibeto-Burman Area* 37(2): 240–263. <https://doi.org/10.1075/ltba.37.2.04tou>
- Tournadre, Nicolas & Sangda Dorje (2003), *Manual of Standard Tibetan*, Ithaca, N.Y.: SnowLions Publications.
- Tournadre, Nicolas (2008), Arguments against the concept of ‘conjunct’/‘disjunct’ in Tibetan, In: B. Huber, M. Volkart, and P. Widmer (eds.), (2008) *Chomolangma, Demawend und Kasbek. Festschrift für Roland Bielmeier zu seinem 65. Geburtstag 1*, Saale: International Institute for Tibetan and Buddhist Studies (Beiträge zur Zentralasienforschung 12), 281–308.
- Yliniemi, Juha (2021), A descriptive grammar of Denjongke, *Himalayan Linguistics*, 20(1). <http://dx.doi.org/10.5070/H920146466>

Stance-taking with reported thought and epistemic marker: The case of Japanese *omou* 'think' constructions

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Keywords: reported thought, epistemic stance, stance taking, Japanese, conversation

Mental state predicates are frequently used with the first-person subjects, forming epistemic markers like English "I think," as observed in various languages (Bergqvist 2021; Endo 2013; Helasvuo 2014; Nuyts 2001; Thompson 2002). Although such markers are not available in Japanese conversation due to the basic word order (SOV) and frequent argument omission, the verb *omou* 'think' is constantly used and has developed various usages in conversation as well as in other genres. Using the methodology of Interactional Linguistics (Couper-Kuhlen and Selting 2017), I examine *omou* constructions in two related but distinct conversational environments, namely storytelling sequences and opinion-telling sequences, and reveal how these constructions contribute to stance-taking (Du Bois 2007).

The structure of the *omou* construction ([complement clause] - [quotative particle] - [*omou*]) can be analyzed differently depending on the environment in which the utterance is produced. In storytelling (ex.1), the verb *omou* ('think'), often realized in the non-finite, tenseless *omotte* form (Shimotani and Endo 2014), completes a reported thought. *Te omotte* ('I think/thought that') cannot be deleted since the speaker's thinking at the time of the event is a crucial part of the story, and the structure of [reported thought + *to omou* (*omotte*)] as a whole conveys the speaker's affective/evaluative stance. In contrast, in the opinion-telling sequence (ex.2), *tte omou* (quotative particle + 'think') qualifies the speaker's opinion as her personal view (cf. Moriyama 1992) and is not grammatically required. Thus, structurally, the utterance can be analyzed as having two parts: [evaluative stance (opinion)] + [epistemic stance marker].

The paradigmatic relation also differs when *to/tte omou* works as an epistemic stance marker. Since Japanese is an SOV language, *-te omou* used as an epistemic stance marker may contrast with other post-predicate elements such as politeness markers and final particles (e.g., *desu yone* in line 11 of ex. 2). The final particle *yone* is used to solicit agreement from the recipient. By contrast, often preceded by the particle *na*, which makes the utterance sound like a soliloquy (Hasegawa 2010), *to/tte omou* functions to lessen the imposingness of stating an opinion. In this way, *to/tte omou* ('to think that') not only marks the epistemic stance but also serves an interactional function.

It is not yet clear, however, whether these differences have consequences in actual conversation. As shown in ex.1 and ex.2, the interlocutors begin to agree before the *omou* part is fully produced. In the workshop, I would like to discuss the possible non-correspondence between semantic/structural characteristics and the interactional outcome of the *omou* construction.

Examples

(ex.1)

10 Rei: *soshitara::, densha ni noru toki ni:: omoikiri GAN te kikoete::, (1.0)*

Then, when they got on the train, I heard a huge sound "GAN!"

- 11 UWA:: tte nakihajimete:: de okaasan ga usodesho? toka itte. he he he he
(the child) started crying, "UWA:::", and his mother said "No way!"
- 12 \$nani yatten no::: toka itte\$ [.hh .hh [.hh .hh .h
said like, "WHAT ARE YOU DOING!"
- 13 Lisa: [yariso:: [u demo (.) otoosan.
(He) would do (such a thing) though, a dad.
- 15 Natsu: [\$< o too sa:::: n >\$
Da:::::d!
- 16 Rei: [\$ne:::\$.hh wa:: gomen toka itte.
Right? (The father) said, like, "Oh I'm sorry"
- 17 **uwa:: otoko jibun no koto shika kangaete [na::::i to omotte:,**
INJ guy self GEN thing only think NEG QT think
I thought that, "Oh my god, this guy does not think anything but himself!"
- 18 Lisa: [te na::::i
TE NEG
(He does) not (think anything but himself).
- 19 Mika: [soo da ne:: moo=
That's right, yeah.
- 20 Lisa: =honto soo da yone.
That's so true, isn't it.

(ex.2)

- 07 Maho: minna ga sooyatte natta toki ni meccha sekinin o
Everyone NOM that.way become.PAST time DAT very responsibility ACC
- 08 kanjiru yoona fuuchoo wa .h
feel like tendency TOP
The tendency to feel so much responsibility when one gets COVID,
- 09 Hana: ne.
Right.
- 10 Maho: **yokunai na(h):: tte omo[u°**
not.good FP QT think
is not good I think.
- 11 Hana: [ne yokunai desu yone=
FP not.good COP-POL FP
Right, it's not good, isn't it.

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References

- Bergqvist, Henrik (2021), Egophoricity and perspective: a view from spoken Swedish, *Frontiers in Communication: Language Sciences* 6 (627144), 1–13.
- Couper-Kuhlen, Elizabeth and Margret Selting (2017), *Interactional Linguistics*. Cambridge: Cambridge University Press.
- Du Bois, John W. (2007), The stance triangle, in R. Englebretson (ed.), *Stancetaking in discourse: Subjectivity, Evaluation, Interaction*, John Benjamins, 139–182.
- Endo, Tomoko, (2013), Epistemic stance in Mandarin conversation: The positions and functions of wo jude “I think”, in Y. Pan and D. Kádár (eds.), *Chinese Discourse and Interaction: Theory and Practice*, London: Equinox, 12–34.
- Hasegawa, Yoko (2010), *Soliloquy in Japanese and English*, Amsterdam: John Benjamins.
- Helasvuo, Marja-Liisa (2014), Searching for motivations for grammatical patternings", *Pragmatics* 24(3), 453–476.
- Moriyama, Takuro (1992), Bunmatsu shikoo dooshi 'omou' wo megutte -- bun no imi toshiteno shukansei/kyakkansei [On the sentence-final cognitive verb 'omou': Subjectivity and objectivity as sentence meaning]. *Nihongogaku* [Japanese Linguistics] 11(9), 105-116.
- Nuyts, Jan (2001), *Epistemic Modality, Language, and Conceptualization: A Cognitive- Pragmatic Perspective*, Amsterdam: John Benjamins.
- Shimotani, Maki and Tomoko Endo (2014), Sequential patterns of storytelling using omotte in Japanese conversation. *Journal of Japanese Linguistics* 30, 33-53.
- Thompson, Sandra A. (2002), "Object complements" and conversation: Towards a realistic account. *Studies in Language* 26(1), 125-164.

Egophoricity in rejecting offers in Wutun

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Keywords: Wutun, egophoricity, offers, requests, Conversation Analysis

In my talk, I will discuss the role of egophoricity in rejecting offers in Wutun, a mixed language with Northwest Mandarin lexicon and Amdo Tibetan grammar spoken by ca. 4000 people in Qinghai Province, P.R. China. Wutun has an egophoric marking system, which includes the ego marker *-yek* and the sensory-inferential marker *-li*. According to the traditional definition, egophoricity encodes involvement/lack of involvement in the described event (San Roque et al. 2018: 2). However, recent research on Wutun shows that in talk-in interaction the speakers use egophoricity to signal their epistemic rights and responsibilities with respect to other speech-act participants and the use of the egophoric marking morphemes is connected to interpersonal context of interaction rather than language-external reality (Sandman & Grzech 2022).

Offers and requests have been studied extensively in the conversation analytic literature (Kendrick & Drew 2014). I will investigate whether the interactional workings of the Wutun egophoric markers *-yek* and *-li* have any differences in rejecting an offer of food or drink to one participant in a conversation. The tentative results show that while in my data the sensory-inferential marker *-li* is used in promptly rejecting the offer (*I do not want more*), the ego marker *-yek*, which is associated with a high degree of epistemic authority, is preferred when the offerer repeats his offer and creates a sequential environment for accounting for the denial (*I do not want more potatoes because I already had one*). Egophoric marking, therefore, can serve as a tool for negotiation in accepting and rejecting offers. The data discussed in my talk is an excerpt of everyday conversation from a family lunch which was recorded during a field trip in 2018. The data is analyzed by using methods from Conversation Analysis (Schegloff 2007).

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References

- Kendrick, Kobin and Paul Drew (2014), The putative preference for offers over requests. In P. Drew and E. Couper-Kuhlen (eds), (2014), *Requesting in Social Interaction*, Amsterdam/ Philadelphia: John Benjamin's, 87–114.
- Sandman, Erika and Karolina Grzech (2022), Egophoricity and evidentiality: Different categories, similar discourse functions. Insights on conversational data from the Tibetan Plateau and the Amazonian Foothills, *Interactional Linguistics* 2(1), 79–109.
- San Roque, Lila, Simeon Floyd and Elizabeth Norcliffe (2018), Egophoricity: An introduction. In S. Floyd, E. Norcliffe and L. San Roque (eds), (2018), *Egophoricity*, Typological Studies in Language 118, Amsterdam/Philadelphia: John Benjamins, 1–77.
- Schegloff, Emanuel A. (2007), *Sequence Organization in Interaction: A Primer in Conversation Analysis*, Volume 1. 1 edition, Cambridge/ New York: Cambridge University Press.

Conversational functions of disclaiming one's knowledge: Analysis of the marker =*cha* in Upper Napo and Chibuleo Kichwa

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Keywords: evidentiality, epistemic authority, Quechua, Kichwa, conversation analysis

In Quechuan languages, the cognates of the clitic =*cha* are most widely analysed as instantiations of an indirect evidential, encoding an inferential and conjectural meaning (e.g. Faller 2002; Hintz & Hintz 2017). However, this analysis does not apply to all Quechuan varieties. For example, in Upper Napo Kichwa (Ecuador, ISO: quw), the marker does not function as an indirect evidential. This is shown in (1): an out-of-the blue utterance, marked with =*cha*, is not a felicitous statement, as would be expected if the marker encoded indirect evidence. Rather, its only felicitous interpretation is that of a request for confirmation, exemplified in (1b):

(1)

tamia-shka=**cha**

rain-ANT=**CHA**

a. #'It (must have) rained.' [speaker has not seen the rain, but sees the ground is wet]

b. 'Has it rained?' [I'm not sure but I think you know]

[el_18092014_01 02]

Further argument against analysing the Upper Napo Kichwa =*cha* as an indirect evidential is that it can be used in statements based on direct evidence, but in situations where the speaker does not wish to assert their epistemic rights. This is shown in (2), based on the elderly speaker's experience from her youth, and thus incompatible with an indirect evidential source:

(2)

Ima shuti-ra=**cha**, Shangri=**cha** ni-j-kuna a-ka=y,

what name-ACC=**CHA** Shangri=**CHA** say-AG.NMLZ-PL COP-PST=EMPH

'What (was his) name, (he) was called Shangri (I think) (...)'

[in_26052013_02 132]

I propose that, rather than being an indirect evidential, in this Quechuan variety =*cha* should be analysed as a marker attenuating the speaker's epistemic stance: a disclaimer of epistemic authority.

Under this analysis, the use of =*cha* indicates that the speaker renounces the epistemic rights over the conveyed information (cf. Grzech 2016; 2017), which they would otherwise be expected to have. This interpretation is compatible with both (1) and (2) above, and also explains why =*cha*-marked utterances can be interpreted both as confirmation questions, as in (1a), and as statements acknowledging the speaker's lack of knowledge, as in (3):

(3)

Chi=ga ima lumu-ruku=**cha**=y chi....

D.DEM=TOP what manioc-AUG=**CHA**=EMPH D.DEM

'That one, what kind of manioc is that (I don't know)...'

[in_01082013_06 098]

That said, thus far the properties and functions of =cha in the Ecuadorian Kichwa varieties have only been explored in a cursory fashion. This talk aims to propose a more fine-grained analysis of the marker, based on conversational data from a recent (2020-2022) documentation project of two Ecuadorian Kichwa varieties: Upper Napo Kichwa, discussed above, and Chibuleo Kichwa (ISO: qxl). Preliminary analysis suggests that, in Chibuleo, similarly to Upper Napo, =cha cannot be analysed as an inferential/conjectural evidential, and that the marker's semantic and pragmatic properties are rather related to the epistemic stance assumed by the speaker.

The main goal of this talk is to instantiate the above analysis, and attempt a more detailed description of the epistemic functions of =cha in the two varieties under study. To this end, the talk will explore fragments of dialogic conversations, taking into account the details of their linguistic, interpersonal and situational context.

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References

- Grzech, Karolina. 2016. *Discourse enclitics in Tena Kichwa: A corpus-based account of information structure and epistemic meaning*. SOAS, University of London PhD Thesis. <https://doi.org/10.25501/SOAS.00024336>
- Grzech, Karolina. 2017. Autoridad epistémica y atenuación en Tena Kichwa: Análisis de enclítico =cha basado en el corpus. *Normas* 7(2). 48–71. <http://dx.doi.org/10.7203/normas.v7i2.11167>
- Faller, Martina T. 2002. *Semantics and Pragmatics of Evidentials in Cuzco Quechua*. PhD Thesis. Stanford University.
- Hintz, Daniel & Diane Hintz. 2017. The evidential category of mutual knowledge in Quechua. *Lingua* 186–187. 88–109. <https://doi.org/10.1016/j.lingua.2014.07.014>

WS6 Exploring the Limits of Complex Predicates

ComPLETE: A typological database of complex predicates

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Keywords: database, complex predicates, typology, morphosyntax, clausehood

The term ‘complex predicate’ has received increasing attention in recent years (Bower 2014, Nash & Samvelian 2015, Nolan & Diedrichsen 2017, Csató et al. 2020, Krauße 2021, Pompei et al. 2023) while still posing a challenge for theoretical and descriptive linguistics. Our ongoing work focuses on verbal complex predicates (VCPs), defined as a monoclausal construction with a single set of argument positions, consisting of at least two “verb-like” items. This question lies at the center of an international project called “ComPLETE” (ANR-DFG, 2022-2025), which proposes to compare the structures of verbal complex predicates across a broad array of language families — including languages from Europe, Asia, Africa, the Americas, and the Pacific — and a consortium of 34 linguists and engineers.

One of the objectives of ComPLETE is to develop a typological database of VCPs. For this database, we employ a bottom-up approach by abstracting ourselves from established labels in the domain of complex predicates such as “serial verbs” (e.g. Aikhenvald 2018), “light verbs” (e.g. Butt 2010), “converbs” (e.g. Haspelmath & König 1995) and “auxiliary” constructions (e.g. Anderson 2011). Instead of using these traditional categories, we invite contributors to describe individual constructions based on a set of 20 questions: e.g. “*Can both verbs also be used as a single predicate in an independent clause in the form in which they occur in the VCP?*”. These questions are categorized according to seven parameters, namely: semantic function of the VCP, finiteness of individual verbs, wordhood, order of the VCP components, level of boundness or juncture, argument pooling and the use of TAM operators. In addition, our database will document recurring patterns of grammaticalization, such as <give> reanalyzed as a benefactive; and of lexicalization, such as <take + come> encoding an event like “bring”.

Our talk will outline the structure of the database and discuss the most challenging parameters for cross-linguistic comparison, such as clausehood and argument sharing in VCPs. Can we define consistent criteria to tell apart monoclausal (e.g. *she made me leave the room*) from multiclausal constructions (e.g. *she asked me to leave the room*), or is this a scalar phenomenon? When each component verb brings its own arguments to the complex predicate, how are they pooled together into the structure of the resulting ‘macro-verb’ (François 2006: 230)?

By creating the database, we aim to bring together the descriptive traditions that tend to employ their own established terminology. The ComPLETE database will allow typological, theoretical and statistical analyses of commonalities and differences between various types of complex predicates. The database will be made publicly accessible in the future so other researchers can provide their own data and use the shared results for carrying out their own analyses of attested VCP types.

Our hope is to develop a platform with clearly defined, cross-linguistically applicable criteria for identifying recurring patterns in the domain of complex predicates.

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References

- Aikhenvald, A. Y. (2018). *Serial Verbs*. New York: Oxford University Press.
- Anderson, G. D. S. (2011). Auxiliary Verb Constructions (and Other Complex Predicate Types): A Functional-Constructional Overview. *Language and Linguistics Compass* 5(11): 795-828.
- Bowern, C. (2014). Complex Predicates in Australian languages. In H. Koch & R. Nordlinger (eds): *The Languages and Linguistics of Australia: A Comprehensive Guide* (pp. 263-294). Berlin, Boston: De Gruyter Mouton.
- Butt, M. (2010). The light verb jungle: Still hacking away. In Amberber et al. (pp. 48-78).
- Csató, É. Á., L. Johanson & B. Karakoç (eds.) (2020). *Ambiguous verb sequences in Transeurasian languages and beyond*. Wiesbaden: Harrassowitz.
- François, Alexandre. 2004. Chains of freedom: Constraints and creativity in the macro-verb strategies of Mwotlap. In I. Brill et F. Ozanne-Rivierre (eds), *Complex predicates in Oceanic languages: Studies in the dynamics of binding and boundness*. Empirical Approaches to Language Typology. Berlin: Mouton de Gruyter. 107-143.
- Haspelmath, M. & E. König (eds.) (1995). *Converbs in Cross-Linguistic Perspective*. Berlin, New York: Mouton de Gruyter.
- Krauße, D. (2021). Towards a Theory of Complex Predicates in Australian and Oceanic Languages: An Analysis of Coverb Constructions in Wagiman and Serial Verb Constructions in Vurës. PhD Thesis. Newcastle: University of Newcastle.
- Nash, L. & P. Samvelian (eds.) (2016). *Approaches to Complex Predicates*. Leiden: Brill.
- Nolan, B. & E. Diedrichsen (eds.) (2017). *Argument Realisation in Complex Predicates and Complex Events: Verb-verb constructions at the syntax-semantic interface*. Amsterdam: John Benjamins.
- Pompei, A., L. Mereu & V. Piunno (eds.) (2023). Light Verb Constructions as Complex verbs: Features, Typology and Function. Berlin, Boston: De Gruyter Mouton.

Complex motion predicates in Turkish Sign Language: a developmental perspective

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Key words: Sign language, language acquisition, motion events, serial verb constructions, Turkish Sign Language

Across languages, linguistic variation in expressing motion events is mainly observed in the diverse ways in which languages encode information about Path and Manner. Talmy (1985) proposed a basic distinction between satellite-framed (e.g., English) and verb-framed (e.g., Turkish) languages. However, languages which display serial verb constructions (SVCs) involving motion verbs are not easily classified according to this dichotomy (Ameka & Essegbey 2006), since in these constructions, a Manner predicate combines with a Path predicate in a mono-clausal construction (Lovestrang & Ross 2021). This strategy of Manner and Path encoding is also commonly observed in sign languages (Couvee & Pfau 2018; Supalla, 1990) as shown in (1) from Sign Language of the Netherlands, where the Manner component precedes the Path component.

- (1) TOGETHER CYCLE GO₃ PARTY
'We cycled together to the party.'

In the current study, we contribute to the discussion of complex predicates by analyzing motion event descriptions in Turkish Sign Language (TİD). We will further take a developmental approach by studying how these constructions are acquired by TİD-acquiring deaf children, which was not studied in detail in previous studies on sign language acquisition.

30 TİD signers from three age groups (children 4–6 and 7–9 years, adults) were asked to describe eight short videos containing salient Path (up, down, towards, circle) and Manner (walk, hop, roll) components. The obtained event descriptions were coded for *type* and *order* of Path and Manner encoding. We observed that signers in general use three different strategies: a) sequential encoding, in which Path and Manner are encoded as separate language forms, b) conflated forms, in which a single predicate expresses both Manner and Path, and c) mixed forms, i.e., a combination of both sequential and conflated. Regarding the order of Path and Manner components in sequential and mixed forms, we observed three patterns: a) Manner-final, b) Path-final, and c) Sandwich (i.e., Manner-Path-Manner or Path-Manner-Path). Furthermore, we emphasize that the sequential cases attested in our data show all characteristics of directional SVCs: both predicates can appear independently, yet they express a single event, and there is no linking element or sign of subordination (2a). Structurally, this is comparable to the directional SVC from Saramaccan in (2b).

- (2) a. HILL MAN ROLL MOVE.DOWN
'A man is rolling down the hill.'
- b. Mi waka lóntu dí wósu
1SG walk surround DET house
'I walk around the house.'

Furthermore, comparisons among age groups revealed that the conflated forms were used more frequently than the other two types by all groups. This is similar to earlier findings reported for deaf children acquiring French Sign Language (Sallandre et al. 2018) as well as for homesigning children (Özyürek et al. 2015). Our data further revealed that adults used mix forms more frequently than children, a pattern which was not reported in the before-mentioned previous studies. Finally, analysis of the order of the components in the sequential and mixed cases showed that all signers preferred Path-final constructions.

References

- Ameke, F. & Essegbey, J. 2006. Elements of the grammar of space in Ewe. In S. Levinson & D. Wilkins (Eds.), *Grammars of Space: Explorations in Cognitive Diversity*, 359–399. Cambridge: Cambridge University Press.
- Couvee, S. & Pfau, R. 2018. Structure and grammaticalization of serial verb constructions in sign language of the Netherlands—a corpus-based study. *Frontiers in Psychology* 9. 993.
- Lovestrand, J. & Ross, D. 2021. Serial verb constructions and motion semantics. In A. Guillaume & H. Koch (Eds.), *Associated Motion*, 87–128. Berlin, Boston: De Gruyter Mouton.
- Özyürek, A., Furman, R., & Goldin-Meadow, S. 2015. On the way to language: Event segmentation in homesign and gesture. *Journal of Child Language* 42(1), 64–94.
- Sallandre, M.-A., Schoder, C., & Hickmann, M. 2018. Motion expressions in the acquisition of French Sign Language. In M. Hickmann, E. Veneziano, & H. Jisa (Eds.), *Sources of Variation in First Language Acquisition: Languages, Contexts, and Learners*, 365–390. Amsterdam: John Benjamins.
- Supalla, T. 1990. Serial verbs of motion in ASL. In S. Fischer & P. Siple (Eds.), *Theoretical Issues in Sign Language Research*, 127–152. Chicago: University of Chicago Press.
- Talmy, L. 1985. Lexicalization patterns: Semantic structure in lexical forms. In T. Shopen (Ed.), *Language Typology and Syntactic Description*, 36-149. Cambridge: Cambridge University Press.

A Role and Reference Grammar analysis of the Turkish converb *-(y)Ip*

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Keywords: converbs, complex predicates, complex clauses, Turkish, Role and Reference Grammar

In this talk, the theory of complex clauses put forth by the theory of Role and Reference Grammar (Van Valin 2005) is applied to the Turkish converb in *-(y)Ip*.

The Turkish converb *-(y)Ip* covers a broad range of constructions from clause combining to complex predicates. Canonically used to establish a vague ‘and’-relation between two clauses with identical subjects (Johanson 1990: 140) ((2)), it is less commonly used with different subject clauses, too ((1)). This latter function is heavily restricted to passivized and unaccusative verbs (Csató and Johanson 1993: 139–140; Brendemoen and Csató 1987: 128) or cases where a possessive relation holds between the two subjects (Johanson 1995: 318, 2021: 928). Furthermore, it is used in lexicalized complex predicates ((3)) and the so-called postverbial construction ((4)) where a converb-marked lexical verb is modified by an auxiliary verb from a closed set of desemantized verbs like STAND, TAKE or GIVE, to express different actional (Aktionsart) meanings (Johanson 2021: 597; Ağcagül 2009).

- (1) *Silah-lar çek-il-ip kavga başla-dı.* (Johanson 2021: 928)
weapon-PL draw-PASS-CONV fight begin-TERM
‘Weapons were drawn, and the fight began.’
- (2) *Kız ev-den çık-ıp okul-a git-ti.* (Johanson 1991: 101)
girl house-ABL leave-CONV school-DAT go-TERM.PST
‘The girl left the house and went to school.’
- (3) *gül-üp oyna-mak* (van Schaaik 2020: 432)
laugh-CONV dance-INF
‘to have a good time’
- (4) *çalış-ıp dur-mak* (Johanson 2021: 606)
work-CONV stand-INF
‘to work constantly’

The exact syntactic nature of the relations between elements linked by *-(y)Ip* remains a controversial topic in the literature. While Kornfilt (1997), in reference to the converb’s prototypical same subject use, classifies it as coordination, Göksel and Kerslake (2005) treat it as subordination. Watters (1993) proposes an analysis of *-(y)Ip* as core cosubordination in RRG, but only considers its same subject uses. This talk extends his findings by looking specifically at the different subject uses, and its uses in complex predicates, lexicalized verbs, and postverbial constructions.

Starting from Johanson’s (1995) four levels of converb constructions, which correspond to the different functions of *-(y)Ip* outlined above, RRG’s levels of juncture and nexus relations are applied to the Turkish data. The analysis shows that most constructions with *-(y)Ip* are of the cosubordinate type with varying degrees of operator sharing. Postverbial constructions pose a theoretical challenge to RRG’s concept of the nucleus and suggest that a more fine-grained model is needed to account for their syntactic behavior. In the absence of reliable tests to determine whether the postverb contributes its full

argument structure to the complex, one must ask whether it is indeed an auxiliary as often stated in the literature or rather a light verb (Butt 2010).

Either the postverbs retain their predicative potential and argument structure – although the existing literature argues otherwise (Johanson 2021: 598; Csató 2003: 107) – and receive a predicate node in RRG's constituent projection, or they are represented as a grammatical operator, although, strictly speaking, they express actional and not aspectual modification. Ultimately, this raises the question of how to model postverbal constructions and complex predicates in RRG and necessitates further development of the theory's underspecified concept of grammatical aspect at the nucleus level.

References

- Ağcagül, Sevgi (2009), *Aktionale Operatoren im Türkischen mit besonderer Berücksichtigung des Türkei- und Irantürkischen*, Mainz: Johannes Gutenberg-University dissertation.
- Brendemoen, Bernt, and Éva Ágnes Csató (1987), A syntactic analysis of Turkish gerundial clauses with subject control, in H. E. Boeschoten, and L. Th. Verhoeven (eds.), (1987), *Studies on modern Turkish: Proceedings of the third conference on Turkish linguistics*, Tilburg: Tilburg University Press, 121–135.
- Butt, Miriam (2010), The light verb jungle: Still hacking away, in M. Amberber, B. Baker, and M. Harvey (eds.), (2010), *Complex predicates: Cross-linguistic perspectives on event structure*, Cambridge: Cambridge University Press, 48–78.
- Csató, Éva Ágnes (2003), A typology of Turkish double verb constructions, in A. S. Özsoy, D. Akar, M. Nakipoğlu-Demiralp, E. Erguvanlı-Taylan, and A. Aksu-Koç (eds.), (2003), *Studies in Turkish linguistics: Proceedings of the tenth international conference in Turkish linguistics*, Istanbul: Boğaziçi University Press, 105–110.
- Csató, Éva Ágnes, and Lars Johanson (1993), On gerundial syntax in Turkic, *Acta Orientalia Academiae Scientiarum Hungaricae* 46(2–3), 133–141.
- Göksel, Asli, and Celia Kerslake (2005), *Turkish: A comprehensive grammar*, London / New York: Routledge.
- Johanson, Lars (1990), Zur Postterminalität türkischer syndetischer Gerundien, *Ural-Altische Jahrbücher* 9, 137–151.
- Johanson, Lars (1991), Zur Typologie türkischer Gerundialsegmente, *Türk Dilleri Araştırmaları* 1, 98–100.
- Johanson, Lars (1995), On Turkic converb clauses, in M. Haspelmath, and E. König (eds.), (1995), *Converbs in cross-linguistic perspective: Structure and meaning of adverbial verb forms – adverbial participles, gerunds –*, Berlin / New York: Mouton de Gruyter, 313–347.
- Johanson, Lars (2021), *Turkic*, Cambridge: Cambridge University Press.
- Kornfilt, Jaklin (1997), *Turkish*, London / New York: Routledge.
- van Schaaijk, Gerjan (2020), *The Oxford Turkish grammar*, Oxford: Oxford University Press.
- Van Valin, Robert D., Jr (2005), *Exploring the syntax-semantics interface*, Cambridge: Cambridge University Press.
- Watters, James K. (1993), An investigation of Turkish clause linkage, in R. D. Van Valin, Jr. (ed.), (1993), *Advances in Role and Reference Grammar*, Amsterdam / Philadelphia: John Benjamins, 535–560.

Verb-based complex predicates (VCPs) and their manifestations

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Keywords: complex predicates, serial verb constructions, converb, auxiliary, light verb

Cross-linguistic variation within the domain of verbal complex predicates (VCPs) remains a challenge (cf. Alsina et al. 1997, and Amberber et al. 2010). This is taken up here starting with the definition of VCPs in (i) and their previously identified sub-types in (ii):

- (i) VCPs are monoclausal constructions with a single set of arguments, consisting of at least two items which either both synchronically belong to the class of verbs, or combine a lexical verb with a grammatical element that can also be used as a full verb in other contexts.
- (ii) Serial Verb Constructions (SVCs), Converb Constructions (CVCs), Auxiliaries (AUXs), Light Verbs (LVs).

Although the sub-types in (ii) are well established, the consistency within and distinctions between different types are unclear. This problem cannot be resolved by using a more general term like ‘multiverb construction’ (cf. e.g. Ameka 2005). The paper tests the consistency and distinctiveness of the previously identified types by looking at the behavior of the entire range of constructions falling under the definition in (i) with regards to the relevant parameters. Starting with a sample of VCP constructions from languages worldwide based on their function (focusing on tense/aspect, directionality, benefactives, and resultatives) on the one hand, and the relevant parameters such as grammatical marking on the verbs, word order/contiguity, (prosodic) wordhood, levels of juncture (in terms of Van Valin 2005), argument and operator sharing, grammaticalization and lexicalization, the paper investigates the degree to which form and function covary within and among different construction types.

Looking at the attested combinations of semantics and grammatical marking on the component verbs within one functional domain already shows that the distinction between the types is not always clear. Thus, using benefactive from ‘give’ as an example, even though the examples below express similar semantics, the grammatical dependency marking on the verbs is different: (1) is an SVC with no dependency marking on either verb; (2) is a CVC with converb-marked V1; and (3) is yet another construction with two verbal roots integrated into a single verbal paradigm (root serialization, RS). Example (3) additionally shows that the same construction can be analyzed as a VCP in (3a), or as a complex clause with two predicates (3b).

- (1) SVC: Chinese:

Wǒ gěi tā xiě xìn.
1SG give 3SG write letter
‘I write a letter to her/him.’

(2) CVC: Khalkha (Street 1963):
Tüünijg duuda-ž ög-öörej.
3SG:ACC phone-CONV give-IMP
'Please call him [to the phone] for me.'

(3) RS: Alambak (Bruce 1988):
Na yawyt yimam wikna-hay-me-an-m.
1SG dog people buy-give-REM.PST-1SG-3PL
a) 'I bought a dog for the people.'
b) 'I bought a dog and gave it to the people.'

In contrast to this, there are cases of clear-cut distinctions between different construction types. Thus, the LV 'give' in Urdu (4) seemingly presents a similar picture, but the LV is additionally subject to lexical criteria and expresses meanings other than benefactive (Butt and Geuder 2001).

(4) LV: Urdu (Butt and Geuder 2001):
us=ne prezident=ko xat likh dii-yaa.
3SG=ERG president=DAT letter.M.SG.NOM write give-PERF.M.SG
'He/she wrote a letter to the president.'

Thus, LVs are likely distinct from other construction types exemplified above, and also from AUX. In terms of results, one also expects clusters of features such as productivity, compatibility with different hosts, plus certain type-specific signals (e.g. negation test; cf. Haspelmath 2016) which prototypically correspond to different sub-types, and additionally show genealogical and areal effects (e.g. contact-induced convergence between serializing and converbial languages in the Qīnghǎi-Gānsù linguistic area; Shao and Lin 2023).

References

- Alsina, Alex, Joan Bresnan, and Peter Sells (eds) (1997), *Complex Predicates*, Stanford: CSLI.
- Amberber, Mengistu, Brett Baker, and Mark Harvey (eds) (2010), *Complex Predicates: Cross-Linguistic Perspectives on Event Structure*, Cambridge: Cambridge University Press.
- Ameka, Felix K. (2005), Multiverb constructions on the West African littoral: Microvariation and areal typology, in M. Vulchanova, and T. A. Afarli (eds), *Grammar and Beyond: Essays in honour of Lars Hellan*, Oslo: Novus, 15–42.
- Bruce, Les (1988), Serialization: From syntax to lexicon, *Studies in Language* 12, 19–50.
- Butt, Miriam, and Wilhelm Geuder (2001), On the (semi)lexical status of light verbs, in N. Corver, and H. van Riemsdijk (eds), *The Function of Content Words and the Content of Function Words*, Berlin / Boston: De Gruyter Mouton, 323–370.
- Haspelmath, Martin (2016), The serial verb construction: Comparative concept and cross-linguistic generalizations, *Language and Linguistics* 17, 291–319.
- Shao, Mingyuan, and Xuna Lin (2023), Converbs in Sinitic varieties in Qīnghǎi Gānsù linguistic area, *Journal of Pidgin and Creole Languages* 38, 14–40.
- Street, John C. (1963), *Khalkha Structure*, Bloomington: Indiana University.
- Van Valin, Robert D., Jr. (2005), *Exploring the syntax-semantics interface*, Cambridge: Cambridge University Press.

Losing verbhood: The dynamics of complex predicates in Vanuatu

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Keywords: complex predicates – serial verbs – word classes – grammaticalization – Oceanic languages

Among the various types of complex predicates found in Oceanic languages (Crowley 2002, Brill and Ozanne-Rivierre 2004), one widespread pattern in Vanuatu is a string of immediately adjacent verbs. In (1) from Mwotlap, the predicate *tatal tēy* behaves like a single “macro-verb” (François 2004), with a single TAM marking (*tV-... vēh* ‘Potential’). (1) qualifies as a serial verb construction, because both lexical components also exist as independent verbs, capable of heading a predicate (2a–b). In (1), the intransitive V1 *tatal* ‘walk’ and the transitive V2 *tēy* ‘hold’ combine their argument structure into that of an overall bivalent verb *tatal tēy* ‘walk with s.o.’.

Superficially, (3) seems to have the same structure as (1): a bivalent macro-verb *tig day* ‘stand awaiting s.o.’ whose first component is intransitive, while the second introduces an extra argument. However, *day* is different from *tēy*: it cannot be used as a verb, and is only attested as a postverbal modifier. Mwotlap has a whole class of such words, called “postverbs” (François 2011).

Language comparison reveals that modern postverbs often originate in former verbs: e.g. Mwotlap’s neighbour Vurës has a transitive verb *dīar* ‘await’ (Kraußé 2021) that is cognate with (3) *day*. Likewise, the directional postverb *tēqēl* ‘downward’ in (4) is likely a former verb, as suggested by the intransitive verb *taqel* ‘descend’ in Mota (Codrington & Palmer 1896). Originally used in serial patterns like (1), these verbs eventually specialized in the postverbal position, losing their verbal status. This process has been reported for various languages of Vanuatu (Crowley 2002:112, François 2004, 2011, 2017; Rangelov 2020, 2022). Our talk discusses this diachronic scenario in several languages, showing how postverbs emerged from the reanalysis of earlier serial verbs.

For some words, the shift is ongoing: when a verb is almost always used in V2 position, it already shows signs of “losing verbhood”. This shift from verb to postverb often entails semantic and/or syntactic change. Thus, *tēy* as a main verb in (2b) literally means ‘hold in o.’s arms’; but used as a postverb in (1), it takes on an abstract meaning ‘(walk) with, accompany’ – as though it had been reanalyzed as a comitative. Some verbs grammaticalize into argument-handling morphemes, akin to applicatives (Kraußé and François 2023) or prepositions (Durie 1988). Others turn into directional postverbs as in (4), intensifiers (e.g. *meh* ‘hurt > too much’) as in (5), or TAM markers. While certain paths are only attested locally, others are recurrent across the Vanuatu archipelago.

The postverbal constructions of Oceanic languages fall outside the domain of *serial verbs* strictly defined, but they qualify as a special case of *complex predicate* – one often overlooked in typological studies. They can shed light on the limits of complex predicates, by revealing what can happen to verbs when they turn into something else.

Examples – Language : Mwotlap (Oceanic, Vanuatu)

(1) *Nēk ta-tatal tēy vēh inti-k.*
2SG POT₁-walk hold POT₂ child-1sg
‘You can walk with my child.’ [you can *walk hold* my child]

(2a) *Nēk ta-tatal vēh.*
2SG POT₁-walk POT₂
‘You can walk.’

- (2b) *Nēk* *tē-tēy* *vēh* *inti-k*.
 2SG POT₁-hold POT₂ child-1sg
 ‘You can hold my child.’
- (3) *No* *ti-tig* *DAY* *vēh* *kōyō* *van* *gēn*.
 1SG POT₁-stand awaiting POT₂ 3DU DIREC there
 ‘I can just wait for them (standing) over there.’
- (4) *Gēn* *yow* *TĒQĒL* *ēagōh!*
 1INC:PL leap downward now
 ‘Let us jump down right now!’
- (5) *Na-gayga* *e* *ne-hyo* *MEH*.
 ART-rope DEF STAT-long (hurt>)too.much
 ‘The rope is too long.’

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References

- Bril, Isabelle & Françoise Ozanne-Rivierre (eds). 2004. *Complex predicates in Oceanic languages: Studies in the dynamics of binding and boundness*. Berlin: Mouton de Gruyter.
- Codrington, Robert H. and John Palmer. *A dictionary of the language of Mota, Sugarloaf Island, Banks Islands*. London: Society for Promoting Christian Knowledge, 1896.
- Crowley, Terry. 2002. *Serial Verbs in Oceanic: A descriptive typology* (Linguistics). Oxford: Oxford University Press.
- Durie, Mark. 1988. Verb serialization and “verbal prepositions” in Oceanic languages. *Oceanic Linguistics* 27(1/2). 1–23.
- François, Alexandre. 2004. Chains of freedom: Constraints and creativity in the macro-verb strategies of Mwotlap, in Bril and Ozanne-Rivierre (eds.), 107–143.
- 2011. Social ecology and language history in the northern Vanuatu linkage: A tale of divergence and convergence. *Journal of Historical Linguistics* 1 (2). 175–246.
- 2017. The economy of word classes in Hiw, Vanuatu: Grammatically flexible, lexically rigid. *Studies in Language* 41(2). 294–357.
- Krauße, Daniel. 2021. Towards a theory of complex predicates in Australian and Oceanic languages: An analysis of coverb constructions in Wagiman and serial verb constructions in Vurës. PhD Thesis. University of Newcastle, Australia.
- Krauße, Daniel and Alexandre François. 2023. The road to opacity: Reflexes of Proto-Oceanic *-akin in northern Vanuatu. *NUSA: Linguistic studies of languages in and around Indonesia* 74: 37–79.
- Rangelov, Tihomir. 2020. A grammar of the Ahamb language (Vanuatu). PhD thesis. Hamilton, New Zealand: University of Waikato.
- 2022. Postverbs in Oceanic languages: Nuclear serial verb constructions as a locus of grammaticalization. Paper read at the 14th *Austronesian and Papual Languages and Linguistics Conference*.

Complex predicates in Korean in the Role and Reference Grammar: Testing the limits of the Interclausal Relations Hierarchy

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Keywords: complex predicate, auxiliary, converb, Role and Reference Grammar, Korean

In this talk we will present the results of the application of the Role and Reference Grammar framework (Van Valin 2005 *passim*) to the full range of verbal complex predicates and adverbial subordinating constructions in Korean.

Adverbial complex clauses in Korean are overwhelmingly of the hypotactic (de-ranking) type, relying on a particularly large (~30 forms) inventory of converbs (adverbial subordinators). It features a large system of verbal complex predicates which are predominantly used for the expression of categories such as aspect, actionality, associated motion, voice and modality. The majority of those are also converbial, and both structurally and diachronically form a cline with adverbial subordinating constructions. As an agglutinating language with particularly complex verbal morphology, Korean features a set of categories which play a role in the finiteness distinctions. As the result, it displays particularly complex patterns of distribution of the finite categories (tense, mood, illocutionary force, evidentiality, polarity, subject and addressee honorifics) between the head and dependent verbs across both syntactic domains (see Bisang 2007, and Kwon and Polinsky 2008).

(1) *Emeni-nun selkeci-lul ha-si-ess-ko*
mother-TOP dishes-ACC do-SH-PST-CONV
apeci-nun sinmwun-ul ilk-usi-ess-ta.
father-TOP newspaper-ACC read-SH-PST-DECL
'The mother did the dishes and the father read the newspaper.' (Yang 1994: 162)

(2) *Tom-i cip-ey o>(*ass)-ko Mary-ka tochak.hay-ss-ta.*
Tom-NOM home-LOC come-PST-CONV Mary- NOM arrive-PST-DECL
'After Tom came home, Mary arrived.' (Kwon and Polinsky 2008: 5–6)

(4) *Apeci-nun Yengkwuk-ey ka-(si)-ko siph-usi-ess-ta.*
father-TOP England-LOC go-SH-CONV wish-SH-PST-DECL
'My father wanted to go to England.' (Sohn 1994: 345)

(5) *sal-li>(*si)-e cwu-si-ta*
live-CAUS-SH-CONV give-SH-DECL
'rescue' (Sohn 1994: 365)

(6a) *Emeni-ka ai-ekey yak-ul mek-ko.iss-key ha-ko.iss-ta.*
mother-NOM child-DAT medicine-ACC eat-CONT-CONV do-CONT-DECL
'The mother is causing the child to be taking the medicine.' (Song 1988: 592–3)

(6b) *Emeni-ka atul-ekey no-l.swu.iss-key ha-l.swu.iss-ta.*
 mother-NOM son-DAT play-POSSIB-CONV do-POSSIB-DECL
 'The mother can cause the son to be able to play.' (Park 1993: 32)

Building on previous research (Yang 1994 *passim*, and Lee 1998) and addressing previously highlighted controversies (Song 1988, 1996, and Park 1993), we comprehensively test whether the RRG framework correctly and sufficiently accounts for the morphosyntactic patterns observed in Korean, in particular the distribution of the relevant categories (TAME, polarity, modality, subject and addressee honorifics) as operators applying at different levels of juncture, for the entire range of constructions across both syntactic domains. Similarly, we look at whether the predictions by the framework correctly account for the observed patterns of argument sharing and syntactic restrictions, in particular at the lower (core, nuclear) levels of juncture. We also investigate whether the application of RRG to the Korean data helps resolve the questions pertaining to the issue of monoclausality (Haspelmath 2016, and Butt 2010 *passim*). Finally, based on the above, we address the question of whether the Korean data supports the predictions of the Interclausal Relations Hierarchy (Van Valin 2005 *passim*), i.e. whether the levels of juncture and nexus types for all constructions map continuously on the hierarchy.

References

- Bisang, Walter (2007), Categories that make finiteness: discreteness from a functional perspective and some of its repercussions, in I. Nikolaeva (ed.), (2007), *Finiteness. Theoretical and empirical foundations*, Oxford: Oxford University Press, 115–137.
- Butt, Miriam (2010), The light verb jungle: still hacking away, in M. Amberber, B. Baker, and M. Harvey (eds), (2010), *Complex predicates: Cross-linguistic perspectives on event structure*, Cambridge: Cambridge University Press, 48–78.
- Haspelmath, Martin (2016), The serial verb construction: Comparative concept and cross-linguistic generalizations, *Language and linguistics* 17, 291–319.
- Kwon Nayoung and Maria Polinsky (2008), What does coordination look like in a head-final language?, *Converging evidence in language and communication research* 2008, 87–102.
- Lee Heechul (1998), The syntax and semantics of the Korean periphrastic causative construction, State University of New York at Buffalo PhD dissertation.
- Park Ki-seong (1993), Korean causatives in Role and Reference Grammar, State University of New York at Buffalo MA project.
- Song Jae Jung (1988), Clause linkage in Korean periphrastic causative and purposive constructions, *Ehakyenkwu* [Language Research] 24(4):], 583–606.
- Song Jae Jung (1996), Korean periphrastic causative constructions in Role and Reference Grammar: A rejoinder to Park (1993) and Yang (1994), *Ehakyenkwu* [Language Research] 32(4), 665–689.
- Sohn Ho-Min (1994), *Korean*, London: Routledge.
- Van Valin, Robert Jr. (2005), *Exploring the syntax-semantics interface*, Cambridge: Cambridge University Press.
- Yang Byong-seon (1994), Morphosyntactic phenomena of Korean in Role and Reference Grammar: Psych-verb constructions, inflectional verb morphemes, complex sentences, and relative clauses, State University of New York at Buffalo PhD dissertation, Seoul: Hankuk Publishers.

Complex predicates in the Tungusic languages from the typological, comparative and areal perspectives

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Keywords: Tungusic, complex predicates, auxiliary, morphosyntax, typology

Following the general guidelines of the ComPLETE project (Vanhove et al. 2021), the paper addresses complex predicates (CPs) in the Tungusic languages from a typological perspective, as well as from comparative and areal perspectives. In particular, it discusses the most prominent type of (verbal) CPs in Tungusic (see Czerwinski 2019 on Uilta), which is converb-based and is predominant in North Asian languages (including Turkic, Mongolic, and Uralic). In addition to this major type of ‘asymmetric’ CP-construction (in terms of Bisang 1995), involving a combination of a non-finite form (converbial or participial) and a finite auxiliary or light verb, it presents a more marginal type of bi-finite structures, as found in Northern Tungusic (cf. Ewen: *aj-ra-n buju-n* [good_do-AOR-3SG hunt-AOR.3SG] ‘it is good that he hunts’). Further, among the participial periphrastic constructions, apart from the predominant pattern with finite auxiliaries (AUX-headed in terms of Anderson 2006), we briefly discuss a peripheral construction with non-finite auxiliaries (LEX-headed auxiliary constructions in terms of Anderson 2006). As noted in the literature (Malchukov 2013; Malchukov and Czerwinski 2021), AUX-headed type of participial periphrasis (cf. Ewen: *em-če bi-he-m* [come-PFV.PTCP be-AOR-1SG] ‘I returned’) developed through ‘verbalization’ (reanalysis of a nominal/participial into a verbal predicate) while the LEX-type (cf. Ewen: *omnga-ča-w bi-d’i-n* [forget-PFV.PTCP-1SG.POSS be-FUT.PTCP-3SG] ‘I probably forgot’) involved canonical ‘insubordination’ (reanalysis of a sentential argument into a main clause).

The paper addresses the questions of delimitation of complex predicates from multiclausal units, distinction between light verbs and auxiliaries, as well as a more general issue of associating particular types of CPs with certain levels of ‘juncture’ (in particular, ‘core’ vs. ‘nuclear juncture’, in terms of Role and Reference Grammar; Van Valin 2005). Thus, light verbs can be distinguished from auxiliaries by their ability to take aspectual morphology. As for distinguishing CPs from multiclausal constructions, a possibility of the two verbs being negated separately (a test well known from the literature on serial verb constructions; Haspelmath 2016) is the most universal, but some other tests, also discussed in the literature (Butt 2010), such as anaphoric binding or the use of Negative Polarity Items (NPI) can also be used in particular cases. Thus, Negative Polarity Items, derived through addition of the focal enclitic =*dA* to an interrogative pronoun have either indefinite (e.g., *iaak=tA* ‘something’) or negative (‘nothing’) interpretation – when in the scope of negation. This test can also be used to show that constructions with ‘light verbs’ with negative modal semantics are monoclausal (cf. Ewen: *iaa-w=da d’eb-nge turkut-ti-w* [what-ACC=FOC eat-CONNeg not_able-PST-1SG] ‘I could not eat anything’).

The comparative perspective will include an overview of the distribution of CPs across different domains (tense, aspect/actionality, negation) in different branches of Tungusic. Overall, CPs are better represented and cover a broader range of functions in the Southern (Manchuric) branch than in the Eastern and Northern branches, as expected given the more analytic profile of Manchuric. Finally, we

will show the areal isoglosses for a selection of grammaticalization paths in different families in North Asia, suggesting areal convergence.

References

- Anderson, Gregory D. (2006), *Auxiliary Verb Constructions*, Oxford: Oxford University Press.
- Bisang, Walter (1995), Verb serialization and converbs – differences and similarities, in M. Haspelmath, and E. König (eds), *Converbs in cross-linguistic perspective*, Berlin: Mouton de Gruyter, 137–188.
- Butt, Miriam (2010), The light verb jungle: Still hacking away, in M. Amberber, B. Baker, and M. Harvey (eds), *Complex Predicates: Cross-linguistic Perspectives on Event Structure*, Cambridge: Cambridge University Press, 48–78.
- Czerwinski, Patryk (2019), Complex predicates in Uilta (Orok), in É. Á. Csató, L. Johanson, and B. Karakoç (eds), *Ambiguous verb sequences in Transeurasian languages and beyond*, Wiesbaden: Harrassowitz, 99–116.
- Haspelmath, Martin (2016), The serial verb construction: Comparative concept and cross-linguistic generalizations, *Language and linguistics* 17(3), 291–319.
- Malchukov, Andrej L. (2013), Verbalization and insubordination in Siberian languages, in M. Robbeets, and H. Cuyckens (eds), *Shared grammaticalization with special focus on the Transeurasian languages*, Amsterdam / Philadelphia: John Benjamins, 177–208.
- Malchukov, Andrej L., and Patryk Czerwinski (2021), Verbalization/insubordination: A diachronic syntactic isogloss in Northeast Asia, *International journal of Eurasian linguistics* 3(1), 83–104.
- Vanhove, Martine, Walter Bisang, Andrej Malchukov, and Alexandre François (2021), 'ComPLETE: Complex Predicates in Languages: Emergence, Typology, Evolution', available at <https://complete.huma-num.fr>.
- Van Valin, Robert D., Jr. (2005), *Exploring the syntax-semantics interface*, Cambridge: Cambridge University Press.

Both languages have similar constructions with the same morphological coordination (zero-coordination and *-(i)p*) but with different syntactic and semantic properties. Semantically, the interpretation of “single event”-ness does not hold, as can be seen most straightforwardly by the availability of sequential interpretations (sometimes the only possible interpretation). Syntactically, these constructions differ in allowing verbal aspect to vary (5) and in their requirement for verb-object adjacency (6).

(5) *Nuuchahnulth*

ʔuʔuk ^w aqh=ʔi	ʔiptq-ʂiʕ	hiniic	mučičtup
oneself=CMMD.2SG	pack-PERF	carry.IMPF	clothing

‘Pack and carry your own clothes.’

(6) *Uyghur*

Abliz	New	York-ga	kel-(i)p	(bashqa yer-ga)	ket-di-0
Abliz	New	York-DAT	come-(i)P	(other place-DAT)	leave-PST-3

‘Abliz came to New York and left (for another place).’ (Sugar 2019:133)

The convergent properties of Uyghur and Nuuchahnulth motivate a typology of multi-verb constructions that prioritizes the semantic and interpretive range of a clause ahead of properties like the presence of overt morphology. In a typology which begins with a morphosyntactic definition of a serial verb construction, the similarities between Nuuchahnulth and Uyghur can easily be missed, as completely bare verb coordination in the former and the use of a “converb” in the latter may place these in separate typological categories. By instead selecting the semantics of verb coordination as the point of comparison, such as simultaneity, unified tense and aspect, and a shared agent, the syntactic convergence between these languages becomes clear.

I will present in greater detail the multi-verb constructions in Nuuchahnulth and Uyghur, and then present a preliminary sketch of what a semantics-centered typologization of multi-verb constructions might look like.

References

Sugar, Alexander. 2019. *Verb-linking and Events in Syntax: The Case of Uyghur -(i)p Constructions*. Doctoral dissertation.

Prosodic chunking and verbal complex predication

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Keywords: serial verb constructions, prosody, grammaticalisation, prosodic chunking, discourse

In this talk, I will discuss the role that prosodic chunking plays in the discourse packaging of verbal complex predicates. Serial verb constructions are often said to occur within single intonation units (e.g. Givón 1991), under single intonation contours (e.g. Pawley 1987), or with the same intonational patterns as other monoclausal constructions (e.g. Durie 1997; Aikhenvald 2006). Prosody is theorised to also play a role in distinguishing other types of complex predication (e.g. Butt and Lahiri 2013). With this in mind, how dependent are complex predicates on prosody? I present some initial findings about prosodic chunking of complex predicates in three Himalayan languages and discuss how it can inform our theories of complex predication and its grammaticalisation.

I look at cases of multiverb constructions in naturalistic corpus data from three languages of the Eastern Himalayas: Kera'a (idum1241), Duhumbi (chug1252), and Galo (galo1242). Tokens of putative constructions were coded for morphosyntactic, semantic, and prosodic features to allow for a multivariate approach to the data (cf. Bickel 2010). Using this coding, I grouped data points together based on their grammatical similarity into fuzzy clusters, using silhouette width to distinguish between more and less prototypical members of the cluster. This information was then used to inform inferential Bayesian models using prosodic information to determine whether prosodic chunking patterns are associated with any grammatical groupings in the data.

I focus in this talk on the likelihood that a prosodic-phonetic disruption between verbal elements (or a "medial break") will occur with a putative multiverb construction. My findings show a clear distinction in the likelihood of medial breaks according to construction type. Conventionalised complex predicate constructions tend to be realised in the same intonation unit, with more prototypical instances in the data being less associated with medial breaks. However, complex predicates which are formally closer to biclausal structures such as converb constructions show signs of being prosodically-dependent: the more monoclausal-like the construction is, the less likely it is to occur with a medial break. Prosody appears to play a crucial role for complex predication and its grammaticalisation in these languages, and perhaps, in languages more generally worldwide.

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References

- Aikhenvald, Alexandra Y. 2006. Serial Verb Constructions in Typological Perspective. In *Serial Verb Constructions: A Cross-linguistic Typology*, edited by Alexandra Y. Aikhenvald and R. M. W. Dixon, 1–68. Oxford: Oxford University Press.
- Bickel, Balthasar. 2010. Capturing Particulars and Universals in Clause Linkage: A Multivariate Analysis. In *Clause Linkage and Clause Hierarchy: Syntax and Pragmatics*, edited by Isabelle Brill, 51–102. Amsterdam: John Benjamins.
- Butt, Miriam, and Aditi Lahiri. 2013. Diachronic Pertinacity of Light Verbs. *Lingua* 135: 7–29.
- Durie, Mark. 1997. Grammatical Structures in Verb Serialization. In *Complex Predicates*, edited

- by Alex Alsina, Joan Bresnan, and Peter Sells, 289–354. Stanford, CA: CSLI Publications.
- Givón, Talmy. 1991. Some Substantive Issues Concerning Verb Serialization: Grammatical Vs. Cognitive Packaging. In *Serial Verbs: Grammatical, Comparative and Cognitive Approaches*, edited by Claire Lefebvre, 137–84. Amsterdam: John Benjamins.
- Pawley, Andrew. 1987. Encoding Events in Kalam and English: Different Logics for Reporting Experience. In *Coherence and Grounding in Discourse: Outcome of a Symposium, Eugene, Oregon, June 1984*, edited by Russell S. Tomlin, 329–60. Amsterdam: John Benjamins.

Semantically, the French constructions take stative predicates as complements (nouns and NPs denoting feelings and emotions) and the experiencer is obligatorily *animate* ((ee Gross 1989). The LSF GIVE-causative takes dynamic (4a/b) and stative (4c) predicates that allow (non-manual) durative modification (4b). The LSF GIVE-causative need not imply a psychological state (5a/b), and allows inanimate loci of change of state (5b).

- (4) a. UNHAPPY LOVE STORIES GIVE₁ CRY (LSF)
 ‘Unhappy love-stories make me cry.’
 --durative ---
 b. THAT GIVE₁ COUGHING
 ‘That makes me cough protractedly.’
 c. MEDICATION GIVE HEALTH GOOD (attested)
 ‘Medication makes [people] healthy.’
- (5) a. ONIONS GIVE₁ CRY /*SAD (LSF)
 ‘Onions make me cry/sad.’ (cf. 3a)
 b. WATER GIVE METAL RUSTY
 ‘Water makes metal rust.’

LSF GIVE-causative allow a wider range of predicates than the French constructions including internally caused intransitives and changes of state: (i) psychological predicates (stative/non-agentive dynamic: *happy/laugh*), (ii) internally caused inactive intransitive (*cough/sneeze/blush*), (iii) internally caused changes of state (*rust/melt/crumble*).

Syntactically, French (2a) is a light-verb+noun construction; (2b) has the syntax of lexical *donner* ‘give’. LSF GIVE-causatives differ from both constructions.

Unlike (2a) LSF GIVE-causatives allow durative, adjectival and nominal modification of their complement (4b/c and 6 respectively).

- (6) TRAINING GIVE₁ CHESS PROGRESS (LSF)
 ‘Training makes me progress at chess.’

Unlike (2b), LSF GIVE-causatives differ from the lexical verb GIVE: causative GIVE has fixed word-order with a post-verbal predicate (4)/(5)/(6) while for lexical GIVE in neutral word-order the Theme is preverbal (1b).

The data suggest that the term *GIVE-causatives* is a descriptive cover term, not a natural class of constructions, neither syntactically nor semantically. We propose that LSF GIVE-causatives are adjunction constructions, following Zribi-Hertz & al.’s (2019) proposal for serial verb constructions of motion in Zribi-Hertz & al (2019), with the GIVE-VP left adjoined to the main predication: an event VP[1-LAUGH] or a result PredP[1-HAPPY/1-HEALTH GOOD].

References

- Anderson, Gregory (2011). Auxiliary Verb Constructions (and Other Complex Predicate Types): A Functional–Constructional Overview. *Language and Linguistics Compass*, 5: 795-828.
- Déchaine, Rose-Marie (1993). Predicates across categories. PhD UMass Amherst.
- Glaude, Herby (2012). *Aspects de la syntaxe de l’haïtien*. Paris: Editions Anibwé.

- Gross, Gaston (1989). *Les constructions converses du français*. Genève: Droz.
- Lord, Carol ; Foong Ha Iwasaki, Shoichi (2002). Grammaticalization of 'give'. African and Asian perspectives. In I. Wischer & G. Diewald (eds.), *New Reflections on Grammaticalization*, 217–235. John Benjamins.
- Veenstra, Tonjes & Muysken, Pieter (2017). Serial Verb Constructions. In M. Everaert and H. v. Riemsdijk (eds) *The Wiley Blackwell Companion to Syntax*, 2nd Edition. Oxford: Wiley-Blackwell.
- Zribi-Hertz, Anne ; Jean-Louis, Loïc & Paul, Moles (2019). Left-adjoined bi-valent predicates in two Caribbean French-based creoles: Martinican and Haitian. *Revista Letras* 99:75– 100.