



DGKL/GCLA-9

9th International Conference
of the German Cognitive Linguistics Association
Cognitive Linguistics as an Interdisciplinary Endeavour:
Theoretical and Methodological Challenges

BOOK OF ABSTRACTS

1st to 4th March 2022,
University of Erfurt

<http://www.uni-erfurt.de/go/dgkl-9>

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1. Programme Overview

1. Programme Overview

Conference Survey 01–04 March 2022

TIME SLOTS	Tuesday, 01 March	Wednesday, 02 March	Thursday, 03 March	Friday, 04 March
9:00–10:00		PLENARY (+ discussion) <i>Dirk Geeraerts</i>	PLENARY (+ discussion) <i>Kristian Tylén</i>	PLENARY (+ discussion) <i>Natalia Levshina</i>
10:00–10:30		Coffee break		
10:30–12:30		Parallel sessions 1.A & 1.B: General conference presentations	Parallel sessions 4.A & 4.B: General conference presentations	Parallel sessions 6.A, 6.B General conference presentations
12:30–13:30		Lunch break		
13:30–15:30		<i>Preconference-Workshop</i> Classification trees and random forests for linguistic data <i>St. Th. Gries</i>	Parallel sessions 2.A & 2.B General conference presentations	<i>Conference workshop:</i> Cognitive Linguistics and Neuroscience Keynote: <i>Friedemann Pulvermüller</i>
15:30–15:45	Session 1: 13:30–15:15 coffee break Session 2: 15:45–18:00	Small coffee break		
15:45–17:45		Parallel sessions 3.A, 3.B, 3.C General conference presentations	Parallel sessions 5.A & 5.B: General conference presentations	Parallel sessions 7.A, 7.B General conference presentations
17:45–18:00		Small break		
18:00–19:00	Conference opening PLENARY (+discussion) <i>Ewa Dąbrowska</i>	PLENARY (+ discussion) <i>Stefanie Wulff</i>	PLENARY (+ discussion) <i>Adele E. Goldberg</i>	PLENARY (+ discussion) <i>Sabine Stoll</i>
19:00–19:15		Small break		
19:15		Social programme		

	Tuesday, 01 March 2022
18:00–19:00	Conference Opening PLENARY (+discussion): The effects of literacy on grammar, <i>Ewa Dąbrowska</i>

	Wednesday, 02 March 2022	
9:00–10:00	PLENARY (+ discussion): Lessons from the lexicon?, <i>Dirk Geeraerts</i>	
10:10–10:30	Small coffee break	
SESSIONS 1.A, 1.B (1) 10:30–10:55 (2) 11:00–11:25 (3) 11:30–11:55 (4) 12:00–12:25	Session 1.A: Issues in Construction Grammar (1) Lexical vs. constructional licensing: German adversative sentences and construction-internal relations, <i>Ziem, Alexander; Willich, Alexander</i> (2) Anchor points, blending and construction grids – NPs in a CxG model, <i>Herbst, Thomas</i> (3) Where cognitive automation and socio-communicative ritualisation meet to produce unidirectional grammaticalisation, <i>Neels, Jakob</i> (4) Epistemic adverbs as lexical fillers in large-scale constructions, <i>Benen, Marie-Christine</i>	Session 1.B: Cognitive Approaches to Spoken Language and Discourse (1) Wie dialogisch ist ein Dialog? - Gespräch als Schnittstelle von Sprache und Kultur, <i>Ozono, Masahiko</i> (2) Register, genre, style? Micro-level operation of meaning on the macro-level of discourse, <i>Stukker, Ninke</i> (University of Groningen) (3) Uses of ‘free-standing’ "sondern" in spoken German – dealing with inferences from negated utterances, <i>Proske, Nadine</i> (4) Normativity management in discourse: Polish reflexive pronoun "sobie/se", <i>Wyroślak, Piotr</i>
12:30–13:30	Lunch break	
SESSIONS 2.A, 2B (1) 13:30–13:55 (2) 14:00–14:25 (3) 14:30–14:55 (4) 15:00–15:30	Session 2.A: Issues in Construction Grammar (1) The status of word class sub-categories based on evidence from multivariate frequency densities, <i>Rauhut, Alexander</i> (2) How vector space models disambiguate adjectives, <i>Montes, Mariana; Geeraerts, Dirk</i> (3) Differences in the constructional behaviour of quasi-synonymous intensifying adverbs, <i>Altmann, Matthias</i> (4) Reflexive motion construction in German: Is it equivalent to the way construction in English? <i>Miyashita, Hiroyuki</i>	Session 2.B: Cognitive Approaches to Spoken Language and Discourse (1) Corona pandemic: How we talk about it is how we understand it, <i>Schönefeld, Doris</i> (2) Image schemas as potential news stories: A case of BBC texts, <i>Potapenko, Serhiy</i> (3) Cognitive bases for the persuasive effectiveness of implicit strategies, <i>Lombardi Vallauri, Edoardo</i> (4) A cognitive rhetorical approach to reporting speeches in the news: The case of Queen Elizabeth II Christmas message, <i>Talavira, Natalia</i>

15:30–15:45	Small coffee break	
SESSIONS 3.A, 3.B (1) 15:45–16:10 (2) 16:15–16:40 (3) 16:45–17:10 (4) 17:15–17:40	Session 3.A: Construction Families/Networks (1) The expression of speed-related information: a corpus study of Estonian motion verbs, <i>Taremaa, Piia; Kopecka, Annetta</i> (2) <i>Stellen</i> or <i>setzen</i> – The distribution of causative light verbs in German, <i>Fleischhauer, Jens</i> (3) Persian (Farsi) Complex Predicates from a Cognitive Construction Grammar Perspective, <i>Pakzadian, Maryam</i> (4) A constructional sketch of the BIG MESS family in English, <i>Sommerer, Lotte</i>	Session 2.B continued: (1) Air Quotes in Media Discourse - A Usage-Based Study, <i>Uhrig, Peter</i> Session 3.B: The Phonetics and Phonology of Constructions (2) Systematicity and iconicity in English count and mass nouns: Phonological correlates of bounded construals, <i>Winter, Bodo</i> (3) Phonetic properties as a cue to modal disambiguation: <i>must</i> in a large corpus of spoken American English, <i>Flach, Susanne; Hilpert, Martin</i> (4) Dativus-ethicus-Constructions (DeCs) and the Neglected Role of Prosody in Linguistic Constructions, <i>Zhang, Bin</i>
SESSIONS 3.C (1) 15:45–16:10 (2) 16:15–16:40 (3) 16:45–17:10 (4) 17:15–17:40	Session 3.C: Second/Foreign Language Acquisition (1) Ditransitive argument structure constructions in FLT, <i>De Knop, Sabine; Mollica, Fabio</i> (2) Need for Cognition, multiple Intelligenz und Grammatikverständnis in heterogenen Klassen der Sekundarstufe I – Ein Schlüssel zum Erfolg?!, <i>Peleki, Eleni</i> (3) The Effect of Cognitive Linguistic Inspired Interventions on Noticing and Usage of Formulaic Chunks, <i>Rott, Susanne</i> (4) Learning to predict – second language perception of reduced multi-word sequences, <i>Tizón-Couto, David; Lorenz, David</i>	
17:45–18:00	Small break	
18:00–19:00	PLENARY (+ discussion): Examining usage: In favor of theory-driven empirical approaches, <i>Stefanie Wulff</i>	
19:00–19:15	Small break	
19:15–20:00	Social programme: <i>Philipp Hermann Quartett: Jazz in the Conference Lounge</i>	

Time slots	Thursday, 03 March 2022	
9:00–10:00	PLENARY (+ discussion): Language as shaped by the environment, <i>Kristian Tylén</i>	
10:00–10:30	Coffee break	
Sessions 4.A, 4.B (1) 10:30–10:55 (2) 11:00–11:25 (3) 11:30–11:55 (4) 12:00–12:25	Session 4.A: Constructional Variation (1) Genitive variation in Danish and Swedish – the iconic motivation, <i>Piotrowska, Alicja</i> (2) We don't play politics with it. The play-X-with-Y Argument Structure Construction in Varieties of English, <i>Brunner, Thomas</i> (3) Nobody don't realise there's phenomena more greater than this. A study case of multiple-marking in NZE, <i>Cetra, Celeste</i> (4) The Impact of Internal Factors on the Loss of Grammatical Structures - Evidence from German Dialects and Luxembourgish, <i>Fischer, Hanna; Frank, Marina</i>	Session 4.B: Psycho- and Neurolinguistic Methods (1) Exploring the conceptualisation of locative events in French, English and Dutch: Insights from eye-tracking on two recognition tasks, <i>Lesuisse, Megane</i> (2) Frames als Frame-Systeme: Angewandte Frame-Forschung und Assoziationsexperimente, <i>Neumair, Phillip Alexander</i> (3) Constructional families in the laboratory: Novel experimental approaches to the study of constructional relations, <i>Ungerer, Tobias</i> (4) Non-linear dynamics of eye movements during text reading, <i>Monika Tschense, Sebastian Wallot</i>
12:30–13:30	Lunch break	
Workshop 13:30–15:30	Conference Workshop: Cognitive Linguistics and Cognitive Neuroscience (organized by Friedemann Pulvermüller) (1) Keynote: Neural mechanisms of form meaning assemblage in construction learning, <i>Friedemann Pulvermüller</i> (2) From tactile perception to tool use: on the sensorimotor grounding of semantics and syntax, <i>Veronique Boulenger</i> (3) Predictive semantic activity in the brain: New arguments for the relevance of sensory and motor systems in meaning processing, <i>Luigi Grisoni</i> (4) Sensorimotor 'grounding' of emotion words: Lessons from the autism spectrum, <i>Rachel Moseley</i>	
15:30–15:45	Small coffee break	
Sessions 5.A, 5.B (1) 15:45–16:10 (2) 16:15–16:40 (3) 16:45–17:10	Session 5.A: Conceptual Metaphor/Metonymy, Figurativity (1) Metaphor and onomatopoeia in the language of bird song, <i>Winter, Bodo; Perlman, Marcus</i> (2) Motion metaphors in the specialised discourse of music criticism, <i>Julich-Warpakowski, Nina</i> (3) An empirical approach to identifying ontological cognitive metaphors for energy in physics, <i>Hull, Peter</i>	Session 5.B: Psycho- and Neurolinguistic Methods (1) Lexical Integrity: Exposing a further fissure in a forty- or fifty-year-old principle, <i>Cappelle, Bert</i> (2) Entrenchment revisited: old and new concepts and their empirical validation, <i>Balog, Evelin</i> (3) Building Deep Learning Models to understand Language Processing in the Human Brain, <i>Krauss, Patrick</i>

(4) 17:15–17:40	(4) An analysis of the metaphorical etymological network structure of the English language, <i>Teich, Marie</i>	(4) The use of action verbs by Parkinson’s Disease patients in spontaneous production – A semantic vector analysis, <i>Lohmann, Arne!</i> ; <i>Gupta, Abhijeet</i> ; <i>Henkel, Julia</i> ; <i>Biermann-Ruben, Katja</i> ; <i>Kallmeyer, Laura</i>
17:45–18:00	Small break	
18:00–19:00	PLENARY (+ discussion): Conventional metaphors are more engaging than literal paraphrases, <i>Adele E. Goldberg</i>	
19:00–19:15	Small break	
	Social programme: <i>to be announced</i>	

Time slots	Friday, 04 March 2022	
9:00–10:00	PLENARY (+ discussion): Communicative efficiency: Evidence from typology, experiments and corpora, <i>Natalia Levshina</i>	
10:00–10:30	Coffee break	
Sessions 6.A, 6.B (1) 10:30–10:55 (2) 11:00–11:25 (3) 11:30–11:55 (4) 12:00–12:25	Session 6.A: Usage-based first language acquisition (1) Providing interactional support in the arena of language use: Linguistic correlates to mother-child attachment types, <i>Behrens, Heike¹; Pfänder, Stefan²</i> (2) Acquisition of demonstratives in cross-linguistic perspective, <i>Diessel, Holger; Monakhov, Sergei</i> (3) Native language knowledge: Links to implicit and explicit memory, <i>Llompart, Miquel; Dąbrowska, Ewa</i> (4) The influence of information structure on the processing of anaphoric reference in German-speaking children and adults, <i>Lehmkuhle, Ina</i>	Session 6.B: Meaning extensions (1) The face of the sky – Body-part extensions from a cross-linguistic perspective, <i>Tjuka, Annika</i> (2) Patterns of meaning extension of common nouns in Japanese and Czech, <i>Kanasugi, Petra</i> (3) Towards a Typology of Extended Spatial Description in Japanese, <i>Telegina, Maria</i> (4) KONTAKT konkret, KONTAKT abstrakt: Verbale Argumentstrukturmuster mit PP-"an", <i>Zeschel, Arne; Proost, Kristel</i>
12:30–13:30	Lunch break	
Theme Sessions (1) 13:30–13:55 (2) 14:00–14:25 (3) 14:30–14:55 (4) 15:00–15:30	Theme Session 1: Usage-based Approaches and the Psychology of Language learning (1) Emerging Networks: The Traceback method and the early construction, <i>Hartmann, Stefan; Endesfelder Quick, Antje; Koch, Nikolas</i> (2) Prior knowledge of distributional information boosts statistical learning in adults and eight-year-old children, <i>Stärk, Katja; Kidd, Evan; Frost, Rebecca L.A.</i> (3) Transfer phenomena in bilingual language acquisition: The case of caused-motion constructions, <i>Koch, Nikolas; Günther, Katharina</i> (4) Interactions between false-belief understanding, linguistic form, and function, <i>Brandt, Silke</i>	Theme Session 2: Language and emotion (1) Behavioural Profiles and Cognitive Models. A usage-based approach to the conceptual structure of ANGER in English and Russian, <i>Glynn, Dylan; Aliya Gimadieva</i> (2) A Behavioral Profile Approach to Lexical Equivalence of the Chinese Emotion Concept 紧张 ‘tension’ in French, <i>Bai, Jing</i> (3) Controlling Boredom: A quantitative cross-linguistic and context-dependent analysis of the emotion concept BOREDOM, <i>Biryukova, Avgustina</i> (4) Conceptualization of negative social emotions. A behavioral case study in Japanese. <i>Kumamoto, Mai</i>
15:30–15:45	Small coffee break	

<p>Sessions 7.A, 7.B</p> <p>(1) 15:45–16:10</p> <p>(2) 16:15–16:40</p> <p>(3) 16:45–17:10</p> <p>(4) 17:15–17:40</p>	<p>Theme Session, continued: <i>Usage-based Approaches and the Psychology of Language learning</i></p> <p>(1) A Usage-Based Semantic Analysis of Children's Everyday Use of the Wort 'Pretend', <i>Pleyer, Michael</i></p> <p>(2) Applying the usage-based perspective to language disorder: Schematic constructions in aphasia, <i>Hatchard, Rachel</i></p>	<p>Session 7.B: Linguistic Creativity</p> <p>(1) When 'very crazy' is not crazy enough: Creative and productive ADJ-intensifying constructions, <i>Kohn, Birgit</i></p> <p>(2) What do violists and linguists have in common? The viola joke! – A linguistic analysis, <i>Salzinger, Julia</i></p> <p>(3) "Was zum verfuckten Kuckuck soll denn das?" On the variation in German IAW structures, focusing on "zum/zur X", <i>Schoonjans, Steven</i></p> <p>(4) Constructionist Approaches to Creativity, <i>Hoffmann, Thomas</i></p>
<p>17:45–18:00</p>	<p style="text-align: center;">Small break</p>	
<p>18:00–19:00</p>	<p style="text-align: center;">PLENARY (+ discussion): First language acquisition: How to extract patterns from the linguistic environment, <i>Sabine Stoll</i></p> <p style="text-align: center;">Conference Closing</p>	

2. Plenaries

The effects of literacy on grammar

Ewa Dąbrowska

Tuesday,
01 March
18:00–19:00

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A number of studies have demonstrated that there are considerable individual differences in how well adult native speakers have mastered the grammatical constructions of their language, and that many of these differences are related to educational attainment and literacy (for reviews, see Dąbrowska 2012, 2015; Farmer, Misyak and Christiansen 2012; Hulstijn 2015; Kidd, Donnelly and Christiansen 2017). However, the "low-educated" or "low-literate" participants in all of these studies had 10–12 years of schooling and were fluent readers, even if they had not read very much after they left school.

In this presentation I present the results of three experimental studies investigating the grammatical abilities of illiterate and semi-literate Spanish speaking adults and age-matched literate controls. The experiments tested speakers' knowledge of two areas of grammar that are known to be acquired fairly late by children, suggesting that literacy may play a role in their development. Experiment 1 tested comprehension of subject and object relatives using a picture selection task. All three groups were at ceiling on subject relatives (the control condition); however, there were large group differences on object relatives, with the illiterate group performing at chance (52% target responses). Experiments 2 and 3 tested speakers' ability to produce imperfect and preterite endings with familiar and novel verbs. The illiterate group performed relatively well on familiar verbs, but had very high error rates on nonce verbs, particularly with less frequent forms.

I conclude that experience with written language has profound effects on speakers' mental representations of language, and discuss some possible reasons for these effects.

References:

- Dąbrowska, E. (2012). Different speakers, different grammars: Individual differences in native language attainment. *Linguistic Approaches to Bilingualism* 2, 219–253.
- Dąbrowska, E. (2015). "Individual differences in grammatical knowledge," in *Handbook of Cognitive Linguistics*, eds. E. Dąbrowska and D. Divjak (Berlin: De Gruyter Mouton), 649–667.
- Farmer, T. A., Misyak, J. B., and Christiansen, M. H. (2012). "Individual differences in sentence processing," in *Cambridge Handbook of Psycholinguistics*, eds. M. Spivey, K. McRae, and M. Joannisse (Cambridge: Cambridge University Press).
- Hulstijn, J. H. (2015). *Language Proficiency in Native and Non-native Speakers: Theory and Research*. Amsterdam: John Benjamins.
- Kidd, E., Donnelly, S., and Christiansen, M. H. (2018). Individual differences in language acquisition and processing. *Trends in cognitive sciences* 22, 154–169.

Lessons from the lexicon?

Dirk Geeraerts

Wednesday,
02 March
9:00–10:00

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If one considers the long-term development of Cognitive Linguistics, a number of trends can be identified. Next to the systematic elaboration of the recontextualizing nature of Cognitive Linguistics, the lexicalization of the grammar in construction grammar – symbolized by such terms as constructicon and even constructicography – looms large as one of the internal evolutions within Cognitive Linguistics.

But whereas the grammar is increasingly modeled according to the example of the lexicon, lexical research as such does not seem to lie within the immediate scope of attention of construction grammar. This is remarkable because at least in the initial stages of Cognitive Linguistics, lexicology constituted a focal area of cognitive linguistic interest due to the light it sheds on categorization phenomena. This raises the question what, if anything, a lexically modeled grammar theory could derive from a closer encounter with lexical studies as they have developed from that categorization-oriented origin. Drawing on the models and methods for the description of lexical and semantic variation that we have explored in the Quantitative Lexicology and Variational Linguistics research team over the past decades, I would like to draw the attention to two specific issues.

- 1) Onomasiological variation – Following the introduction of prototype theory and the inclusion of sense-internal structure in the scope of lexical semantics, reversing the perspective from a semasiological to an onomasiological leads to a better understanding of the concepts of salience/entrenchment and construal (Geeraerts 2016, Franco & Geeraerts 2019).
- 2) Methodological underdetermination – Since the birth of Cognitive Linguistics, we have witnessed a methodological switch to quantitative empirical approaches. But in semantic research, the problems of sense determination that were identified with regard to the various traditional polysemy tests (Geeraerts 1993) do not entirely disappear by switching to the newer methods (Geeraerts 2015).

In both cases, the question arises to what extent these issues might be relevant for a lexicon-inspired construction grammar – or at least, for the question how far the ‘grammar as lexicon’ idea can be pushed. What exactly is the role of the lexicon in the long-term development of Cognitive Linguistics?

References:

- Franco, Karlien and Dirk Geeraerts. 2019. Botany meets lexicology: the relationship between experiential salience and lexical diversity. In Janice Fon (ed.), *Dimensions of Diffusion and Diversity* 115-148. Berlin: De Gruyter Mouton.
- Geeraerts, Dirk. 1993. Vagueness's puzzles, polysemy's vagaries. *Cognitive Linguistics* 4: 223-272.
- Geeraerts, Dirk. 2015. Sense individuation. In Nick Riemer (ed.), *The Routledge Handbook of Semantics* 233-247. London: Routledge.
- Geeraerts, Dirk. 2016. Entrenchment as onomasiological salience. In Hans-Joerg Schmid (ed.), *Entrenchment and the psychology of language learning: how we reorganize and adapt linguistic knowledge* 153 - 174. Berlin: De Gruyter Mouton.

Examining usage: in favor of theory-driven empirical approaches

Stefanie Wulff

Wednesday,
02 March
18:00–19:00

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Over the past two decades, linguistics research has become increasingly methodologically sophisticated, owed to technological advances, availability of unprecedented amounts of data, and an infusion of complex statistical techniques previously used in other disciplines. Critics of this development have argued that methods have become an end in and of itself, with mindless, shallow number-crunching replacing properly informed, deep analysis. Others lament that this attitude towards sophisticated methods create an anti-empiricist trend that ultimately runs counter to the fundamental commitments specifically made in cognitive linguistics (as discussed in Divjak, Levshina, & Klavan, 2016). A third group of researchers, meanwhile, notes that research continues to be published that demonstrably employs unsuitable or under-sophisticated methods, limiting the credibility of reported outcomes (Gries, to appear; Gass, Loewen, and Plonsky, in press).

In my opinion, there is a grain of truth in all three positions. In this talk, I will seek a middle ground, which is to embrace cognitive linguistics' commitment to being empirically grounded (Lakoff, 1990) wholeheartedly, yet without losing sight of the established body of knowledge that should guide our methodological choices. In many cases, methods need to better reflect what we already know to be true at a conceptual or theoretical level, or what we assume as our working hypotheses until they are shown to be false. For illustration, I will discuss different properties of a key notion in cognitive-functional approaches to second language learning, *usage* (alternatively *input*, *language experience*, *ambient language*), what we know about these properties, and what that knowledge entails when we study usage empirically. Specifically, (i) we know that language usage is complex in the sense that multiple factors determine a speaker's usage profile; (ii) we know that usage is determined not only by linguistics, but also cognitive and social factors; and that, as a result of (i) and (ii), (iii) usage varies between individuals such that no two speakers' usage profiles will be identical. These properties of usage should impact empirical study at all stages, from data selection to variable operationalizations and the selection of the most appropriate statistical approach for evaluation. We need to devote more effort to explaining and rationalizing our methodological choices, and acknowledge shortcomings in finding the best match between theory and methods. I critically discuss examples of my research, including studies on particle placement, accentedness judgments, and the genitive alternation.

References:

- Divjak, D., N. Levshina, & Klavan, J. (eds.). 2016. Cognitive Linguistics: Looking back, looking forward. *Cognitive Linguistics* 27.4: 447-463.
- Gries, St. Th. to appear. *Ten lectures on corpus-linguistic approaches in cognitive linguistics: Applications for usage-based and psycholinguistic research*. Leiden & Boston: Brill.
- Gass, S., Loewen, S., & Plonsky, L. in press. Coming of age: the past, present, and future of quantitative SLA research. *Language Teaching*.
- Lakoff, G. 1990. Cognitive vs. generative linguistics: how commitments influence results. *Language & Communication* 11.1/2: 53-62.

Language as shaped by the environment

Kristian Tylén

Thursday,
03 March
9:00–10:00

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A central tenet of embodied approaches to language is the idea that linguistic structure reflects invariant aspects of our bodily experiences of acting in the world. However, these experiences are themselves influenced by conceptualizations originating in social interactions taking place in particular environments (Latour, 1996; Tylén, Fusaroli, Bundgaard, & Østergaard, 2013). And sometimes the environment presents particular affordances for one conceptualization over others (Nölle, Fusaroli, Mills, & Tylén, 2020). This has the implication that our linguistic construal can potentially differ as a function of environmental affordances and the cultural group with which we have a history giving rise to linguistic diversity (Majid, Bowerman, Kita, Haun, & Levinson, 2004). In this talk, I will present recent experimental work investigating the mechanisms by which linguistic structure evolves contingent on social interactions unfolding in particular environmental settings thus informing current discussions under the headline of the *Linguistic Niche Hypothesis* (Lupyan & Dale, 2016). An advantage of the experimental approach is that it allows us to individuate and manipulate factors and test their impact on the cultural evolution of linguistic structure under laboratory conditions. This makes it possible to test the plausibility of existing theories motivated in cross-sectional/correlational studies of language use.

References:

- Latour, B. (1996). On interobjectivity. *Mind, culture, and activity*, 3(4), 228-245.
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- Majid, A., Bowerman, M., Kita, S., Haun, D. B. M., & Levinson, S. C. (2004). Can language restructure cognition? The case for space. *Trends in Cognitive Sciences*, 8(3), 108-114.
- Nölle, J., Fusaroli, R., Mills, G. J., & Tylén, K. (2020). Language as shaped by the environment: linguistic construal in a collaborative spatial task. *Palgrave Communications*, 6(1), 1-10.
- Tylén, K., Fusaroli, R., Bundgaard, P. F., & Østergaard, S. (2013). Making sense together: A dynamical account of linguistic meaning-making. *Semiotica*, 2013(194), 39-62.

Conventional metaphors are more engaging than literal paraphrases

Adele Goldberg

Thursday,
03 March
18:00–19:00
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Conventional metaphorical expressions (e.g., a firm grasp of an idea, a sweet compliment) are extremely common, even when literal paraphrases exist (a good understanding of an idea, a kind complement) [1-3]. I will report results indicating even highly conventional metaphors are more engaging than their literal paraphrases [4-6]. Metaphors evoke greater neural activation than literal paraphrases in the amygdala, a brain area associated with emotional engagement and heightened attention. New pupillometry results demonstrate that conventional metaphors evoke greater pupil dilation as well, further supporting the idea that metaphors are more engaging [5]. The time course of the pupil dilation and extensive norming data indicate that conventional metaphors are engaging because they convey “richer” meaning in an ineffable way that is not reducible to greater concreteness, difficulty or ease, amount of information, nor to short-term lexical access or downstream pragmatic inference.

References:

- [1] Lakoff, G., & Johnson, M. (1980). *Metaphors we live by*. University of Chicago press.
- [2] Lakoff, G., Espenson, J., & Goldberg, A. (1989). *Master metaphor list*. Compilation. University of California, Berkeley.
- [3] Deignan, A. (2005). *Metaphor and corpus linguistics* (Vol. 6). John Benjamins Publishing.
- [4] Citron, FM. and Goldberg, AE. (2014) Metaphorical sentences are more emotionally engaging than their literal counterparts. *Journal of Cognitive Neuroscience* 26, No. 11, Pages 2585-2595.
- [5] Citron, FM. Güsten, J, Michaelis, N, Goldberg, AE. (2016) Conventional metaphors in longer passages evoke an affective fMRI response. *NeuroImage* 139: 218-230.
- [6] Mon, S., Nancheva, M., Citron, FM., Lew-Williams, C., and Goldberg, AE. (2021) Conventional metaphors elicit greater pupil dilation than literal paraphrases or concrete sentences. *Journal of Memory and Language*. (121): 1042-85.

Communicative efficiency: Evidence from typology, experiments and corpora

Natalia Levshina

Friday,
04 March
9:00–10:00

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It has been argued by many researchers that language users have a bias towards efficient communication (e.g., Zipf 1949; Hawkins 2004; Gibson et al. 2019; Levshina, In press). Namely, they tend to minimize communication costs while maximizing its benefits. This behaviour is enabled by cognitive and communicative processes within and between the speaker/signer and the addressee. In this talk, I will provide examples of efficient linguistic behaviour based on typological, experimental and corpus evidence, which also helps to put the efficiency research into perspective and discuss some of its challenges and limitations.

1. *The bias towards efficient communication is universal, but its language-specific manifestations can be very diverse and hard to predict.* This idea will be illustrated by differential argument marking. I will present evidence from a typological database, experiments with artificial language learning, and conversational corpora, arguing for a universal bias towards efficient marking of arguments, which helps the addressee to infer “who did what to whom” in communication. Yet, different languages demonstrate this bias in diverse ways, which are very hard to predict.
2. *Communicative efficiency is only one of numerous cognitive and social factors determining language use and structure, and definitely not the most important one.* To illustrate this, I will discuss negative and positive correlations between different types of cues to grammatical subject and object (case marking, word order and semantics). A causal analysis of the cues in large typologically diverse corpora parsed with Universal Dependencies suggests that the pressure for efficiency is only one of the factors that explain the presence and use of the different cues in a language. A more powerful factor seems to be learnability for adult L2 learners (Levshina 2021).
3. *Human communicative efficiency is not always best modelled by information theory, contrary to the predominant research practices.* Information-theoretic concepts have been fruitfully applied to model efficient linguistic behaviour (e.g., Gibson et al. 2019). Here, I will discuss Zipf’s law of abbreviation (Zipf 1949), which says that more frequent words tend to be shorter than less frequent words. It has been argued, however, that ngram-based informativity (i.e., average conditional surprisal of a word given its context) is a more appropriate measure determining word length, as one would expect from Shannon’s information theory (Gibson et al. 2019). I will present corpus data from typologically diverse languages and different registers suggesting that the correlation of word informativity with length is very unstable and depends on the text type and typological properties of a language. This leads me to conclude that information-theoretic concepts and measures should be used with caution when explaining human linguistic behaviour.

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First language acquisition: How to extract patterns from the linguistic environment

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Friday,
04 March
18:00–19:00
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To understand how language is learned, we need to understand how children can extract linguistic information from the input to become competent language users. The goal of this presentation is to assess the conditions of this process. What patterns and features of the ambient language can children rely on while learning their native language? Humans are the only species with a communication system that varies extremely across communities, changes constantly and has to be completely learned from scratch. From language specific sounds to constructions, everything needs to be learned in the first years of life. To be able to learn any of the thousands of complex systems of human languages a combination of socio-cognitive and pattern-detection skills is needed which allow the infant to adapt, learn, generalize, creatively use and then later on even to contribute to changing these systems. In this talk

I focus on patterns presented in the input that allow children to apply these abilities in building up their language. I focus on a number of patterns and features of the input that allow children to implicitly extract the relevant world-knowledge in synch with linguistic information. To contribute to our understanding of how the surrounding language provides opportunities for learning and generalization, I will present a radical diversity approach that enables us to search for universal structures in the input. This approach relies on a dataset of typologically extremely diverse languages which simulates maximum variation in the languages of the world. I will propose a number of universal structural features of child-directed speech which presumably help the learner in building up their grammar and lexicon. I show that these patterns are on the one hand common to human communication in general but on the other hand they are specifically adapted to the growing linguistic and cognitive competence of the developing child.

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3. Workshops

Neural mechanisms of form meaning assemblage in construction learning

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Thursday,
03 March
13:30–15:30

When learning novel meaningful signs and constructions, information about their form and meaning is processed simultaneously. At the neural level, co-activation leads to binding and, in one theoretical perspective, to the formation of neuronal assemblies acting as cognitive and linguistic representations [1]. Computer simulations using brain-constrained neural networks and biologically realistic associative learning indeed indicate that the learning of linguistic forms in semantically relevant contexts of perceptions and actions leads to the formation of neural circuits for form-meaning pairs, and that the cortical topographies of these circuits reflect aspects of the stored meanings [2].

It may be criticized that an associative account of linguistic knowledge is problematic [3]. However, such criticisms failed to consider the explanatory power of now well-established biological learning mechanisms, which underlie any type of learning, language learning included. In addition to associative binding (strengthening of links between co-activated units and, hence, representations), these include anti-associative dissociation (weakening of links between units if one is active but the other inactive). In this talk, I will show how associative binding and dissociation mechanisms can provide a biological explanation for aspects of lexical, conceptual, semantic and construction learning.

First, the well-known linguistic concepts of entrenchment and statistical pre-emption [4] will be related to, and mechanistically founded in the biological mechanisms of associative binding and dissociation. Second, mechanisms of semantic learning will in focus and an explanation for the relative prominence of specific and category specific semantic features in the learning of labels for individual objects (proper names) and category terms will be proposed [6]. Third, I will discuss recent computer simulations of the learning of concrete and abstract concepts and words based on biologically constrained neural networks [6].

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From tactile perception to tool use: on the sensorimotor grounding of semantics and syntax

Véronique Boulenger

Thursday,

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13:30–15:30

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In the framework of embodied cognition, action words have provided a fantastic opportunity to investigate the grounding of word meaning in the sensorimotor system. Motor cortical regions are activated during processing of action-related words or sentences [1], even in an idiomatic context [2], and action word reading can interfere with or facilitate motor performance. Studies have also examined the embodiment of language in the perceptual system (mostly vision, but also audition, olfaction and taste), yet the case of words referring to touch remains largely overlooked. In this talk, I will first present evidence for functional links between processing of words denoting tactile sensations and tactile perception: reading tactile-related verbs can speed up the mere detection of tactile stimulations [3]. The second part of the talk will be dedicated to another language domain, syntax, which has also been proposed to be embodied [4]. I will present new fMRI evidence that tool use, which adds a further hierarchical level into the motor plan, shares neural substrates with syntax in language in the basal ganglia [5]. Behaviorally, this is reflected by cross-domain learning transfer: training one ability specifically improves the other. These findings suggest the existence of a supramodal syntactic function shared between language and motor processes.

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Predictive semantic activity in the brain: New arguments for the relevance of sensory and motor systems in meaning processing

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13:30–15:30

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Theories of semantic and conceptual grounding emphasize functional interaction between perceptual, motor, and conceptual knowledge (Barsalou, 2008). Although, much evidence shows consistent activation in sensorimotor brain areas during language comprehension (Hauk, Johnsrude, & Pulvermüller, 2004), it has been argued that such activations may index post-hoc epiphenomenal re-processing (Mahon & Caramazza, 2008), rather than genuine semantic processing. In recent works (Grisoni et al., 2016; Grisoni, Miller, & Pulvermüller, 2017; Grisoni, Tomasello, & Pulvermüller, 2020), however, we showed evidence for a significant contribution of sensorimotor areas before predictable words appear. Sentence fragments that strongly predict subsequent words induced a slow potential shift before the expected words; this potential was weaker if the preceding fragments were unpredictable. That this Prediction Potential (PP) indexed predictive semantic processing was further demonstrated by the observation of cortical sources in specific sensorimotor brain areas for action-related (e.g., action verbs, tool nouns) words but in posterior, visual, areas for visual-related words (e.g., animal nouns). Furthermore, inverse correlations between the PP and the well-known brain index of semantic processing, N400, suggest that these two responses have a similar semantic discriminatory function. Overall, these data show that activity in sensorimotor brain areas reflect the meaning of expected words and, therefore, it cannot originate from post-semantic re-processing. Rather, it reflects genuine semantic processing and prediction.

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Sensorimotor 'grounding' of emotion words: lessons from the autism spectrum

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Thursday,
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13:30–15:30

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Much has been written pertaining to the 'grounding' of meaning in sensorimotor systems for words with concrete meanings: that is, words denoting perceptual states (smells, tastes, sounds, visual objects) and actions. Emotion perception and recognition, however, also appears to draw on activity generated in sensorimotor and limbic areas by visual and linguistic stimuli (Ross & Atkinson, 2020). In considering the functional importance of this 'simulation' activity for comprehension, autism spectrum conditions may present an intriguing case example. Autistic people exhibit pervasive differences in their usage and understanding of emotion words (Lartseva et al., 2015), and their perception and recognition of emotional states (Trevisan & Birmingham, 2016). They also experience pervasive sensory differences and movement impairments, with structural and functional substrates for these differences in brain systems for perception and action. Having previously linked under-activation of sensorimotor areas, in action words, to a specific processing deficit for these words (Moseley et al., 2013), the present talk reconsiders autistic emotion processing differences in light of underpinning sensorimotor and limbic simulation, drawing on research from our group (Moseley et al., 2015) and more recent work.

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4. Theme Sessions

Emerging Networks: The Traceback method and the early constructicon

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13:30–13:55

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Usage-based approaches assume that early children's utterances are item-based, suggesting that productivity is emerging gradually. In order to account for the emergence of lexical strings, the so-called traceback method has been developed (see Koch 2019). The underlying rationale of this method is to identify recurring chunks and slot-and-frame patterns in a small subsample of a language acquisition corpus, the so-called test corpus. These patterns are subsequently traced back to earlier utterances which constitute the so-called main corpus (Kol et al. 2014). In various studies based on the traceback method, it has been shown that the patterns that can be identified in children's early speech depend to a large extent on individual input (see, for example, Ambridge & Lieven 2011).

However, a number of important questions remain unclear. On the one hand, the individual parameters posited for the traceback studies could have an influence on the results, e.g. the division into test and main corpus is relatively arbitrary. Secondly, the threshold which establishes a sequence as an entrenched unit is different in each study (ranging from 2-4 occurrences). Thirdly, the operations used to identify schemas are also defined differently, and fourth, the constructions used by the child are highly context-dependent, so factors such as the specific recording time can also significantly influence the traceback result.

In addition, the question arises how informative the results of the traceback studies are with regard to modelling an emerging network and to what extent such models can be considered cognitively realistic.

To address these questions, we use a monolingual German and bilingual German-English corpus to replicate traceback studies with different parameter settings to elaborate how results vary and which consequences this has for future applications. Ultimately this also tackles the questions if abstract schemas exist at all, whether they are cognitive plausible, or, if not, purely exemplar based models should be given preference instead (e.g. Schmid 2014).

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Prior knowledge of distributional information boosts statistical learning in adults and eight-year-old children

Friday,
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14:00–14:25

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Statistical learning (SL), the ability to implicitly track patterns in the environment, has been identified as a key mechanism for language acquisition (Romberg & Saffran, 2010). It is assumed to lead to long-term memory representations; however, the way that those representations influence future learning remains largely unknown (but see e.g., Siegelman et al., 2018).

Over two experiments, we tested 40 German-speaking adults and 49 eight-year-old, German-speaking children on a serial recall task, in which participants repeated a series of eight-syllable (adults) or six-syllable (children) sequences. These contained either (i) bisyllabic words based on frequently occurring German syllable transitions (naturalistic sequences), (ii) bisyllabic words created from unattested syllable transitions (non-naturalistic sequences), or (iii) random syllable combinations (unstructured foils). Importantly, the recall task served as both exposure and test phase, allowing us to examine learning in real time.

Adults and children demonstrated learning from both naturalistic and non-naturalistic stimuli. Moreover, adults' recall accuracy improved throughout the study, and this increase was larger for the naturalistic than the non-naturalistic sequences, especially during the early phases of the experiment. Children's recall accuracy throughout the study, on the other hand, interacted with their performance on a German sentence repetition task, with children demonstrating a higher language proficiency also showing an overall better repetition accuracy and a similar pattern of improvement throughout the study as adults, also especially during the early phases of the experiment.

Thus, while adults and children demonstrated learning from both naturalistic and non-naturalistic stimuli, learning was superior for the naturalistic sequences. This indicates that participants drew on their existing distributional knowledge of German to extract naturalistic words faster and more accurately than non-naturalistic words, supporting memory-based theories of SL, where input is chunked and stored in long-term memory (Batterink & Paller, 2017; Christiansen, 2019).

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Transfer phenomena in bilingual language acquisition: The case of caused-motion constructions

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Usage-based approaches suggest that children gradually build abstract syntactic patterns, called constructions, through processes of abstraction and schematization from the input they receive (Tomasello 2003). Bilingual children have the challenge of learning two sets of non-equivalent constructions when they build their construct-i-con. This can result in deviations from monolinguals, which are commonly referred to as transfer (Riehl 2014). Targeting the expression of the caused-motion construction (Goldberg 1995), the present study focuses on idiosyncratic utterances, those that do not correspond to monolingual adult language use, in three different age groups (4, 6, and 8 years old) of German-French bilingual children (N = 58) in comparison to monolingual control groups (N = 59). The corpus consists of elicited data from object displacements of four different types (Hickmann & Hendriks 2006). The field of cause motion is suitable for the investigation of syntactic transfer because of the different construction types in and between the languages to express those events.

The quantitative analysis showed that idiosyncrasies could be found in both groups, but with significantly higher rates in bilinguals at all ages. In a qualitative analysis, idiosyncratic utterances were clustered into three different types: syntactic patterns, use of verbs, and directional phrases. Regarding the analysis of these types, the influence of French could be shown. In order to classify this linguistic phenomenon in a usage-based approach, we propose to consider transfer as a form of overgeneralization within the bilingual construct-i-con (Koch & Günther 2021).

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Interactions between false-belief understanding, linguistic form, and function

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Friday,
04 March
15:00–15:30

A key factor that affects whether and at what age children are able to demonstrate an understanding of false belief and complement-clause constructions is the type of task used. In addition, in studies that investigate the interaction of false belief and complement-clause understanding, the two skills are typically measured by separate tasks. In the current study, we investigate whether and at what age children are able to coordinate their understanding of false belief with their linguistic abilities in a newly developed task that measures both skills. We also measured children's performance in classic false-belief tests.

English- and German-speaking young 4- and 5-year-olds as well as English- and German-speaking adult controls heard complement-clause constructions in a story context where the belief mentioned in the complement clause (e.g., "He thinks that she's not feeling well") turned out to be false, true, or was left open. All age groups were most likely to repeat the whole complement-clause construction when the belief turned out to be false, and to only repeat the complement clause when the belief turned out to be true, with the neutral-belief condition in between. Children with better short-term memory were also more likely to repeat the whole complement-clause construction. However, children's performance in classic false-belief tasks showed no relation to their performance in the complement-clause task. Finally, in the true-belief condition, German-speaking 5-year-olds and adults were more likely to repeat the whole construction when the complement clause was introduced by a *that* complementizer. These results suggest that, using a novel task, young 4-year-olds can show an understanding of false belief and coordinate this socio-cognitive skill with their linguistic skills. At the same time, our results indicate that this coordination of socio-cognitive and linguistic skills takes time to develop and also depends on children's developing short-term memory.

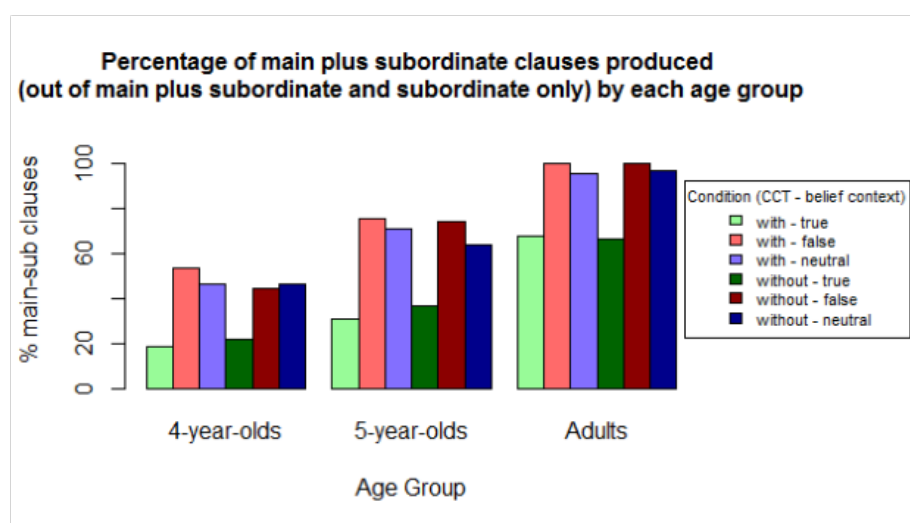


Figure 1. Percentage of main-subordinate constructions produced by each age group; grouped by condition (with/out complementizer; true, false, neutral belief).

A Usage-Based Semantic Analysis of Children's Everyday Use of the Word 'Pretend'

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*Friday,
04 March
15:45–16:10*

In this paper I present a usage-based corpus analysis of children's everyday use of the word 'pretend'. Pretend play is of central importance in children's daily lives. It has also been shown to an important factor in children's social and cognitive development as well as in their language development. (e.g. Bergen 2002). In turn, language acquisition also has an important relationship with the complexity of pretend play (e.g., Quinn et al. 2018). It has also been shown to be an important context in which children learn how to share perspectives using language. It is therefore not surprising that, as Lillard (2007: 136) notes, "[I]inguistic cues to pretending are the most researched topic in the area of how pretend differs from real." There have been numerous experimental and diary studies of children's use of pretend language (e.g. Bunce & Harris 2008). The pretend lexicon of children is therefore of immense research interest. However, little is actually known about how children use these words in their everyday life (Bunce & Harris 2008: 446). In particular, we lack corpus studies investigating how the lexical item 'pretend' is actually used by children and caregivers in their everyday interactions. In this paper, I present such a study, using two CHILDES corpora: The Thomas-Corpus (Lieven et al. 2009) and the Manchester Corpus (Theakston et al. 2001), focusing on the use of the lexical item 'pretend'. The data show that pretend play utterances become more complex over the course of language acquisition, both in terms of the complexity of children's utterances and in terms of the types of pretend play they engage in. In addition, as they grow older, children become more active negotiators and initiators of pretend play. Children thus express and negotiate increasingly complex perspectives on pretend play scenarios in interactions with their caregivers.

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Applying usage-based theory to language disorder: Schematic constructions in aphasia

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04 March
16:15–16:40

Research and clinical practice relating to aphasia (language disorder following brain damage) remain heavily influenced by rule-based theory (Chomsky, 1957 onwards): lexis and syntax are strictly separated; whole-form storage and frequency effects are mainly only proposed for single words; and morphosyntactic impairments are typically deemed to result from damage to rule mechanisms that apply ‘across the board’ (Hatchard, 2021). However, this perspective has recently been challenged in aphasiology, and the usage-based approach highlighted as a more promising alternative (ibid; Hatchard & Lieven, 2019). In the latter, all language is learned, stored and processed as constructions, of various sizes and degrees of schematicity; accordingly, all such items are subject to frequency effects. This theory makes very different predictions to the rule-based characterisations of aphasia, particularly concerning morphosyntactic impairments. Firstly, since aphasia reduces lexical diversity (Groenewold et al., 2013), from a usage-based perspective (which does not separate words from other constructions), aphasia should reduce the diversity of all construction types. Regarding grammatical constructions, speakers should produce a smaller range of these as spoken impairment severity increases. Secondly, the most preserved constructions should be those most frequent in usage, since these are more likely to be encountered by speakers, thereby becoming more entrenched in their minds and potentially, therefore, more likely candidates for preservation.

This study examined the constructions produced in spoken narratives by six adults with aphasia. Utterances were coded for their clause pattern (intransitive, etc.). These data were then analysed for the diversity of constructions per speaker and how frequent the preserved constructions were, based on frequency observations in the literature.

Results support usage-based predictions: with greater impairment severity, construction diversity was reduced, and the more preserved constructions were those most frequent in English, mainly intransitives and copulars. Moreover, within-speaker unevenness was found in participants’ ‘grammatical’ capabilities, contradicting the idea that structures are lost or spared categorically in aphasia. These suggestions of whole-form storage and frequency effects for grammatical patterns, and within-speaker unevenness in morphosyntactic capabilities, are problematic for rule-based theory, but support the usage-based approach. This demonstrates how the latter could provide a more plausible perspective for characterising aphasia, and how aphasia data offers fresh testing ground for usage-based theory.

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Behavioural Profiles and Cognitive Models. A usage-based approach to the conceptual structure of ANGER in English and Russian

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*Friday,
04 March
13:30–13:55*

Despite the descriptive power of Lakoff's (1987) Idealised Cognitive Models, it has proven difficult to falsify results obtained through this approach and those results are unable to account for the effects of social variation upon proposed structures. This study seeks to demonstrate that the Behavioural Profile Approach (Geeraerts et al. 1994; Gries 2003) can produce entirely bottom up quantitative descriptions of conceptual structure, sufficiently fine-grained to detect socio-cultural differences. This study examines the emotion concept of ANGER in contemporary English and Russian. The concept is chosen because both traditional Cognitive Linguistic (Kövecses 1986; Lakoff 1987) and corpus driven research (Soriano 2003, Glynn & Matusевич 2018) have previously examined the concept.

Since it is impossible to retrieve occurrences of a concept in a corpus, the approach adopted here begins with a lexical field and makes the assumption that cultural keywords are fundamental to conceptual structures (Wierzbicka 1985). Beginning with items identified in thesauri, a complete list of lexemes typically used to refer to the concept of ANGER is established. Following this, the most frequent lexemes are 'short-listed' as representative keywords. These items are then used to extract natural language occurrences where people are discussing the experience of ANGER. Importantly, the understanding of the anger events form the object of study and not the lexical semantics per se. For this reason, no attempt is made at controlling for part-of-speech or other language structure effects. A total of 120 occurrences of each of the four most frequent lexemes in each language are extracted (angry, anger, pissed off, mad, гнев, бесить, злой, сердитый). The LiveJournal Corpus (Speelman & Glynn 2005) is employed for three reasons: (i) representative of contemporary language; (ii) texts constitute personal diaries where people speak in detail about emotional experiences; (iii) Russian and English components are almost perfectly comparable in style, register and topic of discourse.

The usage-feature analysis is based upon the cross-linguistic GRID project developed in social psychology (Fontaine et al.). This project has identified universal dimensions that characterize emotions across the world's languages. The coding schema focuses on various characteristics of the different participants in the ANGER event-frame, namely the experiencer behavior, the cause of emotion and the person potentially responsible. Likert scales and multiple coders are used where appropriate and Kappa coefficients are used to determine inter-coder reliability. In order to identify patterns across the usage-events, space reduction multivariate techniques are employed (correspondence analysis / factor analysis). Once the underlying factors structuring the data have been identified, confirmatory techniques (regression modeling / random forests) are used to calculate the significance, relative effect size and overall accuracy of the descriptions. Preliminary results, based on sub-samples, reveal clear similarities between the two languages but also systematic differences, especially in the cause of the emotional response.

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A Behavioral Profile Approach to Lexical Equivalence of the Chinese Emotion Concept 紧张 ‘tension’ in French

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04 March
14:00–14:25

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The aim of this study is to use the Behavioral Profile Approach (Geeraerts et al. 1994, Gries 2003) to identify the equivalence, and therefore the best context sensitive translations, of the Chinese emotion lexeme 紧张 ‘tension’ in French. As a high frequency word in both oral and written Chinese, this lexeme is traditionally translated as *tendu* ‘tense’, *excité* ‘excited’, *nerveux* ‘nervous’, *énervé* ‘annoyed’, *trac* ‘stage fright’, etc. in bilingual lexicons (Han Fa ci dian 2011, Han Fa da ci dian 2014). Considering the semasiological variation of the Chinese lexeme, a list of potential equivalent words (near synonyms) was proposed based on these bilingual Chinese - French dictionaries and two monolingual reference dictionaries of French (Haboury 2009, Le Fur 2011). From this list, the most frequent lemmata in the corpus are selected based on the assumption that they will best capture the principle semasiological variation (Glynn 2016).

For the Chinese source lexeme 紧张 ‘tension’, 400 examples, with substantial context, are extracted and for the 8 most frequent French lemmata, 100 examples of each are extracted. Lemmata are used instead of lexemes due to known difficulties in determining part-of-speech in Chinese. In the target sample, the different forms attested for each lemma are proportionally represented in the subsample. Two comparable corpora are selected for the data: a corpus of French personal blogs (Yang 2019) and a corpus of WeChat personal public accounts (Bai 2019). Due to socio-cultural differences as well as differences in the national media, it is impossible to assure perfect comparability between the samples. However, these two corpora are highly similar in their register, style and topics of discourse.

The study employs the Behavioural Profile Approach. The feature analysis is based on the entries of the dictionaries. Important variables include the cause of emotion, intensity of emotion, duration of emotion, gravity of cause etc. Likert scales and multiple coders are used where appropriate and Kappa coefficients are used to determine reliability of analysis. The results of the usage-feature analysis are examined with the use of multivariate statistics.

In a first step, the semasiological structure of 紧张 ‘tension’ is identified using a combination of correspondence analysis and log-linear analysis. The second step is to use the same criteria that produced the semasiological map of 紧张 ‘tension’ to identify onomasiological structure between the potential translations. This will be done using cluster analysis and multinomial regression analysis. By comparing the two sets of results, the usage features associated with specific senses in the source lexeme can be matched to the significant correlations in the usage of the target lemmata and lexemes. It is expected that the results will show how this entirely bottom up and quantitative approach to semantic equivalency will detect subtle usage nuances of a polysemous lexeme and thus help improve translation accuracy in bilingual lexicons.

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Controlling Boredom: A quantitative cross-linguistic and context-dependent analysis of the emotion concept boredom

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Friday,
04 March
14:30–14:55

The concept of boredom has received little attention in linguistic research. Despite this, psychology views this response as a universal, if not basic, emotion. This study seeks to identify the conceptual structure associated with this emotion in English and Russian. Employing the Behavioral Profile Approach (Geeraerts et al. 1994, Gries 2003), the study quantifiably identifies patterns in how speakers discuss the concept, which in turn, is interpretable as indices of conceptual structure. The study addresses a hypothesis that these two languages structure the emotion concept differently. If it is possible to demonstrate such differences, it can be argued that the experience of the emotion also differs. Usage-events, where speakers describe the experience of boredom, are retrieved from corpora of online diaries (Speelman & Glynn 2005/2012). The principle of cultural keywords (Wierzbicka 1997) is adapted with its frequency-based operationalisation (Glynn 2014). The concept is operationalized through the lexical category of ‘boredom’ (comparable to Russian ‘skuka’) and its adjectival profilings: bored and boring in British and American English and skuchnyi ‘boring’ and neuter predicate skuchno ‘bored’ in Russian. In total, 600 random occurrences were retrieved and annotated by two annotators. This process involves the manual annotation of each contextualized occurrence of a keyword for factors describing underlying conceptual structure: causes, coping strategies and stimuli and intensity. The obtained array of meta-data is then submitted to Multiple Correspondence Analysis. At this stage, the study firstly seeks to map any form-functional patterns that are revealed in the discourse of boredom across the languages. Preliminary results show that subtle differences in the usage of boredom terms can be observed mainly in relation to the stimulus of the emotion.

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Conceptualization of negative social emotions – A behavioral case study in Japanese

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04 March
15:00–15:30
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The aim of this study is to quantifiably identify indices of conceptual structure of SHAME in Japanese. Employing the Behavioral Profile Approach (Geeraerts et al. 1994 inter alios), conceptual structure is operationalised through the systematic analysis of language usage retrieved with the use of key words. Previous cross-linguistic research and social psychology has revealed differences in the conceptualization of SHAME between different speech communities (Krawczak 2018). These results have also shown that SHAME may involve differentiating factors such as negative self-evaluation, the person responsible for the actions, intensity, and duration (Tangney et al. 1995 inter alios). This study firstly seeks to confirm these results for Japanese, but importantly focus upon the possible effects that grammatical semantics may have on such conceptual structure. Corpus data in previous research have generally sought to control for constructional variation but arguably, the abstract semantics associated with various constructional profilings may help better understand the conceptualization believed to be indexed by the lexical semantics. The sample is based on key words (Wierzbicka 1997). The four terms are 恥ずかしい ‘ashamed’, 申し訳ない ‘guilty’, 恥 ‘shame’, and 罪悪感 ‘guilt’. The choice of the terms was based upon their relative frequency, following the assumption that more frequent items are more representative of a given culture (Krawczak 2018). The data are taken from the compiled personal online journals in 2019. As the first step of Behavioral Profile Approach, the data are submitted to manual annotation by the author and a second annotator, with usage features, namely Cause of emotion, Responsible for the cause, Type of audience, Intensity of emotion, Duration of emotion, Intention, Responsible for the cause, Gravity of cause, Temporality, and Construction. The factors of Gravity of cause and Intensity are subjectively measured with the use of a Likert scale. For both types of factors, Kappa statistics is used to assure inter-coder agreement.

The manual analysis of the uses produces a large set of metadata - the behavioral profile. At this stage, multivariate quantitative methods, such as multiple correspondence analysis, will be applied to the annotated data, in order to identify multidimensional association between explanatory variables. Binary and Multinomial regression analysis will then be used to confirm the descriptive accuracy of the results and compare them with the results of previous studies. With regard to the possible effects of grammatical semantics, at first exploratory analysis will seek to identify any complex correlations (multiple correspondence analysis). Assuming such effects are identified, an attempt will be made to add them to the regression modelling to ascertain if it is possible to produce more predictively accurate models. We expect the quantitative results will confirm the underlying structural dimensions of the emotion as well as reveal various characteristics unique to Japanese. Furthermore, we hope to demonstrate that constructional effects need to be integrated into the corpus data of keyword-based research on conceptual structure.

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5. General Presentations

Abstracts are listed in alphabetical order.

Differences in the Constructional Behaviour of Quasi-Synonymous Intensifying Adverbs

Matthias Altmann

Wednesday,
02 March
14:30–14:55

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Intensifying adverbs (e.g. absolutely, completely, entirely, extremely, fully, thoroughly, totally, and utterly) appear regularly as synonyms in dictionaries and thesauri. In standard grammars of English (e.g. Quirk et al., 1985), all of them belong to one category, e.g. to Maximizers in the Subjunct taxonomy. Other researches based on semantic features (Allerton, 1987), or semantic analysis and collocations (Paradis, 1997) detach extremely from this group, leaving the remaining adverbs united in a set.

However, on the basis of the Principle of no Synonymy (Goldberg, 1995) all of these lexemes must not appear in one category, or at least have different features with respect to other linguistic levels.

The aim of this research is to investigate these intensifying adverbs and to distinguish between them by syntactic and semantic features based on corpus data within a usage-based framework. This includes the survey of the phrases and clause parts that contain the adverbs, and the meaning of the lexemes that modify and are modified by the intensifying adverbs depicting their individual behavioural profiles (adapted from Gries and Divjak, 2009).

The corpus used to survey the distinctive features is a component of the diachronic part of the corpus Web-CorpLSE (<http://www.webcorp.org.uk/>), which represents internet English of the years 2009 and 2010.

For this talk I will present partial results of the findings, precisely the differences between three adverbs, absolutely, completely, and totally. I focus on the syntactic distribution of the lexemes in phrasal structures, and on the semantics of the nouns belonging to the intensification process. The results already show variation in use for all of the intensifying adverbs for both syntactic distribution and the semantics of the related nouns independently.

The overall results are expected to show differences in interactions of the investigated variables, displaying substantial diversity in the usage of all mentioned intensifying adverbs.

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Entrenchment revisited: old and new concepts and their empirical validation

Evelin Balog

*Thursday,
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16:15–16:40

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The project attempts to explore entrenchment from a psycholinguistic perspective and analyses automaticity, routinization, chunking as manifestations of entrenchment. Within the framework of this project, entrenchment is defined as a threefold concept triggered by usage and exposure frequency that leads to the strengthening and formation of mental representations and their reorganization into chunks, resulting in effortless fluent processing and production of the entrenched units. The main focus of this project lies on automaticity, which is measured in the form of speech fluency, spectral and phonological reduction. Four empirical studies were conducted to determine which linguistic, social and cognitive factors lead to entrenchment. Special attention is paid to the interaction of these factors as it is believed that no single factor alone is powerful enough to define such a complex phenomenon. Speech fluency was elicited using rapid word naming, sentence reading and sentence recall tasks. The recordings from these experiments were used to determine temporal and spectral reduction in high-frequency and high-transitional-probability adjective-noun combinations. In addition to speech fluency, the participants' cognitive skills, social background and language experience were measured. Around 120 participants were tested. The initial results suggest that participants with well-developed non-verbal processing and implicit learning skills are more likely to achieve automaticity. Of the linguistic factors, higher familiarity scores and transitional probabilities appear to facilitate the entrenchment of the items.

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Providing interactional support in the arena of language use: Linguistic correlates to mother-child attachment types

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Friday,
04 March
10:30–10:55

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The study of first language acquisition gained momentum from usage-based cognitive linguistics, in particular with respect to the contribution of distributional information on the language learning process (Tomasello 2003). Less attention has been paid to the concrete language use in concrete situations (e.g., Küntay & Slobin 2002). We will present a multimodal analysis of a corpus of child-mother interactions, with a focus on the differential nature of mother's attention and communicative support. In particular, we are interested in the richness, complexity, and synchronicity of verbal and bodily interaction in regard to different attachment types.

The data stem from a longitudinal project (Köhler-Dauner et al., 2019). We add to the analytical repertoire used in the medical and psychological research literature with a fine-grained multimodal-analysis of the so-called “cry-baby paradigm”, where a life-like doll has to be taken care of (changing diapers, soothing after crying). Here, the child has to recruit the assistance of the mother to secure the physical and emotional well-being of the baby doll.

Recruitment activities include requests, orders, and suggestions (Floyd, Rossi, & Enfield, 2020), and require social coordination and here-and-now co-operation of temporally adjacent moves (Tomasello, 2019; 2020) within a participation framework (Goodwin, 2007; 2017). We focus on the use of the German discourse particle “so” in its various functions (Auer 2006, Streek 2002, Stukenbrock 2010).

In “insecure attachment”-dyads, timing and content of the interaction are mother-dominated, leaving little room for the children's initiative who mainly delegate tasks to the mother. The mothers attentional focus is on the child and the efficient outcome of the tasks at hand. The language is directive, and “so!” is used to mark the on- or offset of different activities in order to proceed to the next action.

In “secure attachment”-dyads”, the child has more room for exploration and initiative, which leads to a richer co-constructed and more complex and abstract verbal exchange. In terms of multimodal features, the mothers maintain a dual attentional and gestural focus on their child as well as the baby doll that is treated as animate being. The use of language is non-directive but suggestive, and lengthened “sooo” is used deictically when demonstrating possible solutions.

Both attachment types show a close alignment and synchronization in their relative timing and the linguistic nature of their discourse moves, leading to predictiveness or the ability to anticipate each other's reactions. But they also represent two different arenas for learning from linguistic input patterns and more-or-less well-aligned multimodal sources of information and support.

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Epistemic adverbs as lexical fillers in large-scale constructions

Marie-Christine Benen

Wednesday,
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12:00–12:25

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Even though Construction Grammar (CxG) aims to "account for all of our language as patterns of form and function" (Goldberg 1995: 223) as well as to "accommodate all kinds of semantic, pragmatic, discursual and textual information" (Nikiforidou 2010: 265), it has only recently been expanded further than the sentence level. Large-scale constructions allow for clusters of lower-level constructions that are ultimately united by the same function. Considering *free indirect discourse* (FID) as such a large-scale construction, the common function of its elements is shifting the viewpoint from the narrator to the character.

Within this context, I am going to examine whether epistemic adverbs, such as *probably* or *perhaps* are also licensed by the FID construction and add to the shifted viewpoint effect. These adverbs, along with other stance adverbs such as attitude or style adverbs (cf. Biber et al. 1999), can be regarded as lexical fillers of the large-scale FID construction since they "can be defined as a lexical set, or a kind of drop list from a particular semantic domain" (Nikiforidou 2012: 194). While these adverbs are usually centred on the speaker's stance, they function as stance markers of the character in FID and thus support the shifted interpretation of FID passages. Since FID markers often co-occur, the corpus query will consist of two steps: (i) searching for the prototypical FID marker *past + now* (cf. Nikiforidou 2010; 2012) and (ii) filtering for the individual adverbs. The corpora used for this research are the subcorpus "Written Domain Imaginative" of the British National Corpus and the Project Gutenberg corpus. The corpus results will then serve as basis for a qualitative analysis in order to confirm that they do undergo the shifted interpretation within the licensing context of the large-scale FID construction.

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We don't play politics with it. The play-X-with-Y Argument Structure Construction in Varieties of English

Thomas Brunner

Thursday,
03 March
11:00–11:25

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New varieties of English are an interesting test bed for construction grammar as language change in such varieties is typically found at the “interface between lexis and grammar” (Schneider 2007: 83). Along these lines, this study contributes to cognitive sociolinguistics by analysing variation in the *play-X-with-Y* argument structure construction, as in:

1. *The nationalists are **playing games with the people of Scotland**.* (GloWbE-GB)
2. [...] *while avoiding being caught in the rain (because **it plays havoc with their hair**)* (GloWbE-AU)
3. *If the Congress continues to **play ducks and drakes with elected Governments** [...] then the practice owes its origin to Nehru allowing Indira Gandhi to manipulate the sacking of Kerala's Communist Government headed by EMS Namboodiripad in 1959.* (GloWbE-IN)
4. [...] *the Republicans are **playing chicken with the global economy**, so eff'em.* (GloWbE-US)
5. *There are concerns that states need to be created out of the existing ones. But we should not **play politics with the issue*** (GloWbE-NG)

The construction, rather than referring to an actual game, evaluates a speaker's way of interacting with a situation, ranging from positive and affirmative (*play ball with* ‘act fairly’, OED) to negative and risky (*play havoc* ‘to make a situation much more difficult or confusing’, *play chicken with* ‘[...] a situation or confrontation in which those on one side of an issue refuse to negotiate, hoping that the opposition will back down first’, OED).

We study all 2,127 instantiations of the *play-X-with-Y* construction from the British, the American, the Australian, the Nigerian and the Indian components of the Corpus of Web-based Global English, which represent varieties at different stages of sociolinguistic evolution in Schneider's (2007) Dynamic Model.

The study focuses on the following questions:

- What are the preferred fillers of the idiomatic, metaphorical X-slot? For instance, we document that *havoc* is used in British, Australian and Indian English, while it plays hardly any role in the US and Nigerian English; in the latter variety, *politics* dominates vastly.
- What are preferred semantic frames of the complements Y of *with*, which range from highly concrete (cf. (1)–(2)) to more or less abstract (cf. (3)–(5))?
- How do effects from second-language acquisition affect the productivity of the open X slot in the

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Lexical Integrity: Exposing a further fissure in a forty- or fifty-year-old principle

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15:45–16:10

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The year 2020 saw the fortieth anniversary of the Lexical Integrity Principle, which says that syntax cannot ‘look inside’ words to operate on word-internal elements (Lapointe 1980). This principle in fact directly falls out of Chomsky’s Lexicalist Hypothesis, formulated ten years earlier, according to which the component of grammar that assembles words is distinct from the component of grammar that assembles phrases, as the two combinatorial systems are supposed to make use of different rules. The Lexicalist Hypothesis has recently been argued to be both empirically wrong and explanatorily superfluous (Bruening 2018), on the basis that, among other reasons, subword elements can be targeted by ellipsis accompanying coordination (e.g. *bi-sexual and a-sexual*; *forty-year-old or fifty-year-old principle*), just like phrasal elements can. What remains fairly unchallenged, however, is the observation that a word’s morphemes stay together and maintain a rigidly fixed order (e.g. *mindfulness*, not **ful(l)nessmind*), while it is much easier to jumble up the order of phrasal constituents (e.g. *This one I don’t like*).

In this talk, I will point out that even combinations that have – or can have – the status of words may also show the property of having their parts separated and/or appearing in a different order. In particular, particle verbs (e.g. English *calm down*, *freak out*, *shut up*; German *aufklären*, *einführen*, *zulächeln*) have this property. I agree with, among others, Müller (2019) that Hanna et al.’s (2017) neuroscientific findings about particle verbs’ whole-form-stored status needn’t mean that they are words. However, I will argue that they *can* be morphological units (with V^0 status). One piece of evidence for wordhood is that a particle can be preserved in a deverbal *-er* noun with an incorporated Theme (e.g. *an inveterate people taker-inner*), while a verb’s prepositional phrase complement cannot (e.g. **an inveterate people taker into the house*), which suggests that the particle is not a phrasal complement to the verb but must be part of a (complex) V^0 (McIntyre 2013). Other evidence will be adduced, such on the possibility (rarely though it is manifested) to find particle verbs in the verb position of the TIME *away* construction (e.g. *chill out the afternoon away*).

Given that particle verbs can be words, the well-known fact that they can also appear in discontinuous and/or permuted form constitutes a further crack in the Lexical Integrity Principle. The ordering options of particle verbs are shown to be inherited from independently available constructions and constraints.

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Nobody don't realise there's phenomena more greater than this. A study case of multiple-marking in NZE.

Celeste Cetra

Thursday,

03 March

11:30–11:55

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Our aim with this paper was to explore multiple-marking in NZE. We wished to find tendencies between a standard (Pakeha English – PE) and an indigenous variety of English (Maori English – ME). Three constructions were analysed here. Nonagreement in *there*-existentials, multiple comparison and multiple negation.

To answer our research questions, a corpus-based study was adopted. As we are interested in the role sociolinguistic factors (such as speakers' ethnicity) play in the constructions, our data were extracted from the Wellington Corpus of Spoken New Zealand English.

Our findings reveal that the schematic construction *there's* + plural noun phrase is mainly used by younger generations, males, in informal contexts and spoken language. We also discovered that nonagreement increases with the distance between the verb BE and the postponed noun phrase (e.g. *there's quite a lot of things*). There is no significant difference between PE and ME in the productivity of multiple negation and comparison. In conclusion, we discuss that *there's* + plural noun phrase is a construction in its own right; that the clitic in *there's* merges with verb BE to signal plural form; and, that findings point to the likelihood that multiple negation can be considered nonstandard only when it occurs in the same clause.

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Ditransitive argument structure constructions in FLT

Sabine De Knop

Wednesday,
02 March
15:45–16:10

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Construction Grammar (CxG) has established itself as a fruitful descriptive model not only for theoretical studies but also for applied areas such as foreign language learning and teaching (De Knop & Gilquin 2016). Prior studies in CxG have dealt in full length with ditransitive constructions (Goldberg 1995) but hardly with the difficulties associated with their learning in a foreign perspective. Our contribution focuses on the learning and teaching issues for Italian-speaking learners of German. In ditransitive constructions prototypical verbs such as *geben* ('to give') are commonly used, they express a transfer semantics and require a dative complement for the recipient and an accusative complement for the theme. But some German verbs with a similar semantics, such as *lehren* ('to teach'), occur with two accusative complements. This is often problematic for learners who tend to overgeneralize.

With a collection of ditransitive verbs and verbs with ditransitive semantics but without ditransitive argument structure, taken from the *Valenzwörterbuch der deutschen Sprache* (VALBU), a pretest with two types of tasks was conducted with Italian bachelor and master students at the University of Milano in order to define the challenging issues related to the learning of German ditransitive constructions. Both tests revealed that a mere constructionist approach is not satisfactory to explain the idiosyncratic use of German verbs. Moreover, the correct order between both objects cannot be explained with CxG principles either, especially for objects in pronominal form whose order is fundamentally different in Italian.

Our presentation also deals with teaching issues. A pedagogical methodology based on structural priming (Loebell & Bock 2003) and on chunking (Handwerker & Madlener 2006) can bring some positive effects for the learning of German ditransitive constructions as demonstrated by the results of a posttest with the same groups of students and a similar design as the pretest.

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Acquisition of demonstratives in cross-linguistic perspective

Holger Diessel

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Friday,
04 March
11:00–11:25

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This paper examines the acquisition of demonstratives (e.g. *this*, *there*) from a cross-linguistic perspective. Although demonstratives are often said to play a crucial role in L1 acquisition, there is little systematic research on this topic. Drawing on extensive corpus data of about 8 million child words, we investigate the emergence and development of demonstratives in three European and four non-European languages, i.e. English, Spanish, French, Hebrew, Japanese, Chinese, and Indonesian. Specifically, we address the following five questions:

- When do children begin to use demonstratives? In a seminal study, Clark (1978) claimed that demonstratives are generally among children's first words; but some recent CDI-studies did not confirm Clark's hypothesis (González-Peña et al., 2020). However, our data show that, across languages, demonstratives are generally among the earliest words children use (suggesting that CDI reports are not fully reliable when it comes to function words; cf. Salerni et al. 2007).
- How frequent are demonstratives in early child language? Many studies have noted that demonstratives are very frequent in L1 acquisition (Berman & Slobin, 1994), but this has never been systematically investigated based on corpus data. Our data show that demonstratives are indeed very frequent in early child language. Across languages, demonstratives account for nearly 10 percent of children's word tokens between the ages of 1;0 and 2;0.
- What types of demonstratives do children use? Some studies suggest that proximal demonstratives (e.g. *this*) appear before distal demonstratives (e.g. *that*); but this is not confirmed by our data. English- and French-speaking children tend to use distal demonstratives before proximal ones, but in Spanish, Hebrew, Japanese and Chinese it is the other way around (suggesting that there is no universal predilection for a particular distance term).
- How do demonstratives develop during the preschool years? Our data show that the proportions of demonstratives decrease with age and MLU. In all seven languages, 2-year-olds use demonstratives more frequently than 4-year-olds, which in turn use demonstratives more often than adult speakers. In particular, written adult language includes a much smaller proportion of demonstratives than child language.
- Finally, we compared the development of demonstratives to that of other types of spatial and referring terms, e.g. third person pronouns and spatial adpositions. Our data show that the acquisition of demonstratives precedes that of other spatial and referring terms. Yet, while demonstratives decrease in frequency during the preschool years, third person pronouns and spatial adpositions become increasingly more frequent.

In sum, the current study provides compelling evidence for the hypothesis that demonstratives are among the earliest and most frequent words in L1 acquisition. However, as children grow older, demonstratives decrease in frequency and other, non-deictic types of spatial and referring terms become more frequent. Considering these results, we hypothesize that children shift from using a body-oriented strategy of deictic communication to more abstract and disembodied strategies of encoding reference and space during the preschool years (cf. Piaget and Inhelder 1967; Acredolo and Evans, 1980).

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The Impact of Internal Factors on the Loss of Grammatical Structures – Evidence from German Dialects and Luxembourgish

Hanna Fischer

Marina Frank

Thursday,
03 March
12:00–12:25

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With Fischer (2018), we now have the most comprehensive investigation into the loss of the preterite (*Präteritumschwund*) in the German dialects of the Federal Republic. Using dialect grammars and linguistic atlases, she documents the areal distribution of the preterite forms, reconstructs the loss historically. The loss is explained as a grammaticalization process, where the perfect forms develop into past tense forms, which is held responsible for the marginalization and subsequent loss of the preterite: *ich habe gemacht* ‘I have made’ is used instead of *ich machte* ‘I made’. Since some verbs retain their preterite forms longer depending on the dialect area, Fischer (2018) makes a model of the language-internal factors (e.g. token frequency, lexical aspect, (ir)regularity, syntactic structure) that impact the retention or loss of the preterite. It is supposed that these factors have an influence on the cognitive representation and processing of tense forms. The purpose of this talk is to investigate whether her model is also applicable with data-gathered from other methods of investigation and with data from other dialect areas.

This talk will present the results of two related studies:

1. One study takes a large-scale, usage-based approach and analyzes corpus data, retrieved from spontaneous speech data from the interviews recorded in the project *Regionalsprache.de* (Schmidt, Herrgen & Kehrein 2008ff.). The speakers stem from the three main dialect areas in Germany: Low German, Central German, and Upper German. The study aims at a regionally based comparison of the use of preterite and perfect in spoken language data.
2. The second study analyzes the factors influencing the loss of the preterite in Luxembourgish dialects and therefore focuses on a regionally small-scaled comparison. The data consist of competence data that were collected by means of a questionnaire. With the questionnaire, verb paradigms for the present, preterite, and perfect tenses for 24 verbs from 47 speakers of Luxembourgish dialects were collected.

The aim is to build a hierarchy of internal factors that influence the loss of grammatical structures on an empirical basis. The research questions of this talk are the following:

- Are particular preterite tense forms more sensitive to being lost based on language-internal factors such as token frequency, conjugation class, lexical aspect, and syntactic structure?
- Is it possible to organize the decisive factors hierarchically? Which methods are suited to this task (e.g. using a mixed models logistic regression)?
- How do the results of the two studies differ from one another in contrast?

It is expected that token frequency is the main internal factor that influences the loss or retention of grammatical structures, similar to its important role concerning the (ir)regularity of verb forms (cf. Nübling 2000, Schmid 2016). However, other factors are also expected to influence the loss or retention of the preterite.

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Phonetic properties as a cue to modal disambiguation: must in a large corpus of spoken American English

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*Wednesday,
02 March
16:45–17:10*

The English modal auxiliary *must* has a deontic (‘what must be done’) and an epistemic (‘what is likely the case’) meaning. Many corpus linguistic studies have provided evidence that the lexico-grammatical and contextual environment is a reliable cue for the disambiguation of the two meanings (Coates 1983; Wårnsby 2006; de Haan 2012; Cappelle et al. 2019; Hilpert & Flach 2020). For example, *must* followed by a lexical verb (we must perform better) or a passive (this must be done) generally has a deontic reading, while *must* followed by perfects (you must have felt bad), progressives (you must be thinking we are crazy) or adjectival copulas (you must be crazy) is nearly always epistemic.

In this talk, we add a phonetic perspective to these findings with a case study that analyses data from a large corpus of spoken American English (NewsScape2016; Uhrig 2018). Based on a data set of over 2,000 tokens of *must*, automatically annotated for length, and manually coded for meaning, emphasis, and lexical-grammatical features, we show that the two meanings differ substantially with regard to phonetic properties: mixed-effects models show that epistemic *must* is significantly shorter than deontic *must*, even if controlled for factors that are known to influence word duration, such as emphasis, speech rate or transitional probabilities (e.g., Lohmann 2018). The results also suggest that phonetic information is a highly predictive signal for modal sense disambiguation, in addition to collocational or colligational information. In other words, the results lead to new testable hypotheses of whether the difference in production also facilitates disambiguation in comprehension.

On the methodological side, the study showcases how large-scale multimodal corpora, despite some obvious deficiencies, offer exciting new possibilities for usage-based corpus linguistics. On the theoretical side, we also discuss theoretical implications of usage effects in core areas of grammar, arguing that phonetic properties are also part of speakers’ constructional knowledge of modal auxiliaries within the constructional network.

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Stellen or setzen – The distribution of causative light verbs in German

Jens Fleischhauer

Wednesday,
02 March
16:15–16:40

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Light verb constructions are complex predicates consisting of a semantically light verb and a phrasal element. In German, the phrasal element is most frequently a prepositional phrase as in the examples in (1). The main predicational content is contributed by the phrasal element, the light verb is semantically reduced.

- (1) a. *unter Beobachtung stehen* ‘to be observed’, *unter Kontrolle stehen* ‘to be controlled (by)’, *unter Verdacht stehen* ‘to be suspected’
unter Schock stehen ‘to be shocked’, *unter Stress stehen* ‘to be stressed’, *unter Einfluss von etwas stehen* ‘to be under the influence of something’, *unter Anklage stehen* ‘to be charged’

The posture verb *stehen* ‘stand’ is one of the most frequently used light verb in German (Kambers 2008). In combination with the preposition *unter* ‘under’, the light verb forms different types of passive-like light verb constructions. The examples in (1a) are paraphrased by a verbal passive, whereas those in (1b) are paraphrased by an adjectival (or state) passive. Thus, *unter Beobachtung stehen* (lit. under observation stand) is paraphrased as ‘beobachtet werden’ (‘be observed’) but *unter Stress stehen* (lit. under stress stand) is paraphrased as ‘gestresst sein’ (‘be stressed’; see, Fleischhauer 2021).

The two types of light verb constructions in (1) differ not only in interpretation but also with respect to the choice of causative light verb (Fleischhauer 2021). Whereas those in (1a) take the causative light verb *stellen* ‘put’ (2a), the constructions in (1b) prefer the causative light verb *setzen* ‘sit’ (2b). The choice of *setzen* as a causative light verb for light verb constructions containing light *stehen* ‘stand’ is surprising since *stellen* is the regular causative correspondent to *stellen*.

- (2) a. *Die Polizei stellt/#setzt den Verdächtigen unter Beobachtung.*
‘The police puts the suspect under observation’
b. *Das Unglücke setzte/stellte ihn unter Stress.*
‘The disaster puts him under stress’

This raises the following question: what are the factors determining the choice of the two causative light verbs? In the talk, I like answering this question by presenting the results of a corpus study on light verb constructions of the type ‘*unter* NP *stellen*’ and ‘*unter* NP *setzen*’. To achieve this aim, I collected 5000 sentences from the German reference corpus (DeReKo) for each construction type. Within the data, I identified all light occurrence of the two verbs. For each of the two verbs, I analyzed the nouns realized as the complement of *unter* ‘under’. As a preliminary result, it emerged that *stellen* is favored if the nominal complement of *unter* is event-denoting, whereas *setzen* is preferred if the nominal complement denotes a state. This results in the question: why is *stellen* preferred with eventive nouns but *setzen* with stative ones? In the talk, I will present some tentative answers to this question.

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Anchor points, blending and construction grids – NPs in a CxG model

Thomas Herbst

Wednesday,
02 March
11:00–11:25

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Most linguists working within a cognitive linguistics framework are happy to use the concept of construction and to see it as central for their research. For many purposes, especially research aiming to increase our understanding of the learning and processing of language, it may be perfectly sufficient to work with a relatively basic and widespread understanding of constructions as “form-meaning pairings” – a characterization that certainly suffices to distinguish the theory-specific use of the term from the narrower and less precise use of construction in traditional and structuralist linguistics. This focus on cognitive and psychological dimensions of constructions is also very apparent in Goldberg’s (2019: 7) most recent definition, which sees them as “emergent clusters of memory traces” and speaks of “our high- (hyper!) dimensional conceptual space”.

Nevertheless, it may make sense to also explore how we can model the aspects of “form, function and contextual dimensions” of Goldberg’s definition. This seems necessary if we want to use CxG as a model of syntactic analysis, both in terms of a theoretical, a descriptive and a pedagogic model (Herbst 2016, Herbst & Hoffmann 2018). In this spirit, the aims of this paper are (i) to outline a particular format for the description of constructions, and (ii) to illustrate how this kind of format might help to explain how constructions can combine to form larger units (making use of construction grids involving overlap and blending). The focus of the discussion will lie on noun phrase constructions.

In established reference grammars such as Quirk et al. (1985) noun phrases are generally described in terms of four functions: determinative - premodification - head - postmodification. This structure is mirrored in Langacker’s (2008) description of nominals as grounding - premodifier - head - postmodifier.

There are two widely discussed problems connected with this sort of classification – namely (a) that only in exceptional cases the head noun can stand for the whole phrase (compare "city", "car", "heart", "periphery" below) and (b) that not all NPs require the presence of a determinative element ("Amsterdam", "metro" and "tram lines", "garages", "terminals").

(1) Amsterdam wants to be the first major European city that virtually banishes the car from its heart. ... The city says it will expand metro and tram lines and plans garages near the terminals on the city periphery. (NYT-28Jan93)

The paper pursues three aims:

- a suggestion for how the contextual factors of Goldberg’s (2019) definition can be made an integral part of the description of noun phrase constructions in the form of conceptual anchor points,
- a discussion of whether premodifier-noun constructions and postmodifier-noun constructions should be treated as constructions in their own right and the role of blending (Fauconnier & Turner 2006; Turner 2020) in this respect,
- a discussion of the issue of whether there is a justification for a generalized NP-constructions or whether it is more appropriate to postulate a number of different low-level NP-constructions.

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Constructionist Approaches to Creativity

Thomas Hoffmann

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17:15–17:40

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Creativity is an important evolutionary adaptation that allows humans to think original thoughts, to find solutions to problems that have never been encountered before and to fundamentally change the way we live (e.g., Goldberg 2018; Kaufman 2016; Sternberg 1999; Turner 2014). One particular domain of human cognition that has received considerable attention is linguistic creativity (Hoffmann 2018a,b, 2020; Turner & Fauconnier 1999; Turner 2018). Yet, most linguists, including Chomsky (1965) and Goldberg (2006: 22), only have a very narrow definition of verbal creativity that, essentially, boils down to productivity (Barðdal 2008). In these cases, speakers make “original use of the established possibilities of the language (Leech 1969: 24; Sampson 2016 calls this “F(ixed)-creativity”). In contrast to this, too little attention has been paid to “E(nlarging/extending)-creativity” (Sampson 2016), i.e. when a speaker “creates new communicative possibilities which are not already in the language” (Leech 1969: 24; see also Bergs 2018).

In this talk, I will outline a constructionist analysis of linguistic F- and E-creativity that combines insights from psychology as well as cognitive sciences. I will argue that instead of unification or constrain satisfaction, it is the domain-general process of Conceptual Blending (Fauconnier & Turner 1996, 2002; Turner 2014, 2018) that underlies all constructional combination. As I will show, this allows for a straightforward analysis of apo koinu structures (Auer and Pfänder 2011: 6-7) such as "the more opaque that atmosphere is, the less conductive it is, the bigger the temperature difference you need to cross it" (a tripartite Comparative Correlative construct; Hoffmann 2017). Similarly, it can also explain seemingly contradictory utterances such as "Today is tomorrow". (from the movie *Groundhog day*) or literary poetic E-creative constructs such as "Eins within a space and wearywide space it wast ere wohnd a Mookse." (James Joyce, *Finnegans Wake*; cit. in: Leech 1969: 24).

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An empirical approach to identifying ontological cognitive metaphors for energy in physics

Peter Hull

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03 March
16:45–17:10* *FAU Erlangen-Nürnberg*
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This paper builds upon initial research by Amin, Brookes, Dreyfus, Lancor and Scherr, which identifies several substance-based ontological cognitive metaphors (OCMs) for energy in physics, such as energy as a liquid material (expressed in phrases such as “das Fließen eines elektrischen Stromes”) and energy as currency (as in “the machine converts heat into kinetic energy and transfers it to the rod”). Such OCMs frame and influence physicists’ conceptualizations of phenomena relating to energy and, as such, play an important ideological role in physics teaching at all levels of expertise.

However, as Lancor points out, there is no reason to think that cognitive metaphors for energy should be restricted to those which are substance-based, and additional research is needed to identify and characterize further OCMs used in relation to energy. Indeed, Dreyfus and Scherr both highlight issues with a purely substance-based ontology for energy, such as those encountered when conceptualizing negative energy or describing energy as a massless substance.

This work lays out a new empirical approach to the challenge of identifying and analyzing further, non-substance-based OCMs for energy in physics. It also takes a different approach to earlier work on the topic by investigating OCMs and their emergence across two languages (English and German). A series of experimental methods are discussed, as well as results from preliminary pilot tests.

The ultimate intention of this interdisciplinary work is to establish concrete suggestions for language use among those teaching and learning about energy in physics, particularly in mixed language (German/English) teaching environments such as those found at many German universities.

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Motion metaphors in the specialised discourse of music criticism

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Thursday,
03 March Erfurt University

16:15–16:40
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In descriptions and analyses of classical music in music criticism, music is often described in terms of motion and space: melodies *fall* and *rise*, chords can *return*, and motives may *follow* a harmonic *path*. The present study aims to investigate the conceptual motivation of musical motion expressions by analysing key motion verbs in music criticism.

Cognitive linguistic approaches to the phenomenon of musical motion assume that it is based on conceptual metaphors, particularly on the time is motion metaphor (Johnson & Larson 2003). While a musical work has to be presented progressively in time, in the specialised genre of music criticism, the music critic aims at a synoptic description of the structure of a musical piece, divorced from the real-time experience of listening to the music (Alperson 1980). For this reason, other conceptual motivations apart from the time is motion metaphor, such as the Event Structure Metaphor or fictive motion, are plausible.

For the analysis, a 6.7-million-word corpus of texts from the genre of music criticism was compiled. This corpus consists of analyses and concert reviews retrieved from musicology journals and newspapers published in the UK and the US. Keywords were identified using traditional keyword measurements as well as text dispersion keyness (Egbert & Biber 2019). Concordances for selected motion verbs were retrieved to study their potential conceptual motivation in detail.

The corpus study reveals that the majority of key motion verb types in the music criticism corpus are incompatible with a time is motion metaphor interpretation. Especially in the music reviews, manner of motion verbs are frequently used to assess the quality of a musical performance via the Event Structure metaphor submapping actions are self-propelled movements, a feature that is typical for review genres (Caballero 2017). The corpus findings indicate that despite the more general relation between music and time, it is the specific communicative purpose of music criticism that determines the particular use of metaphors for musical aspects.

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Patterns of meaning extension of common nouns in Japanese and Czech

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Friday,
04 March
11:00–11:25

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The vehicles of meaning extension (primarily metonymy and metaphor) as well as some particular extensions based in human experience are universal (Lakoff, 2007; Grady, 1997). Interlanguage differences (Littlemore, 2009; Kövecses, 2003) are typically supposed to reflect differences in the environmental and cultural background. The present study, which contrasts language use in Czech and Japanese, i.e. two languages with very different vocabulary structure, aims to suggest specific traits of vocabulary as another possible factor. Structure of Japanese vocabulary is very distinctive, it comprises of four etymologically, semantically and stylistically distinctive strata (*wago*, *kango*, *gairaigo*, *mimetic*)¹, new nouns especially compounds are coined easily and borrowing is traditionally widespread (Kageyama, 2016). Czech vocabulary is much smaller, includes relatively fewer nouns (less than one third of the Japanese amount) and is much more homogeneous (Těšitelová, 1987). The objective of the present study is to detect whether there are also differences in meaning extension patterns.

The study builds on previous surveys of meaning extension which analyzed meaning extension in five semantic categories and showed that the most significant differences between the two languages are in the categories household objects and animals. The present study focuses on these categories. The method of analysis is a parallel corpus study², ten of the most frequent nouns from each category will be analyzed using Dirvén's figurative language cline (Dirvén, 2002). Partial results of the analysis show consistent tendencies; the Czech language users are significantly more willing to use concrete nouns metonymically or metaphorically or in various idiomatic expressions and frequently cross the non-figurative – figurative boundary. Japanese users tend to use words at their face value and even the non-literal meanings tend to stay in non-figurative range. At the conference, complete results will be reported which, I believe, shall strengthen the conclusions³.

As the meaning extension reflects the way of thinking about the world, any differing tendencies between languages are of interest. There are psycholinguistics reports pointing out specific behavior of Japanese speakers (Tajima, Y., Duffield, N., 2012), as well as claims of Japanese linguists about visual nature of Japanese language (Kumagai, 2015). Pinpointing regularities of meaning extension should contribute to understanding these differences and specific characteristics as well as to our understanding of what factors are in play when it comes to meaning extension in general.

¹ *Wago*: native Japanese stratum which is first learnt, rather spoken and primarily concrete vocabulary.

Kango: sino-japanese, rather written language, predominantly abstract concepts.

However, most concepts have their equivalent in both of these strata.

²Using Intercorp – parallel corpus developed by the Institute of Czech National Corpus.

³An eye-tracking study is also planned in order to establish whether processing of metonymies or metaphors with higher conceptual distance from the core meaning is more demanding for Japanese than for Czech speakers. However, it is not clear whether the results will be available by the time of the conference.

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When ‘very crazy’ is not crazy enough: Creative and productive adj-intensifying constructions

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15:45–16:10
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Creative expressions are assumed to deviate from or extend beyond conventional word use in the sense of highly frequent, entrenched patterns (Goldberg 2019). Entrenchment is closely linked to corpus frequency and to productivity (Stefanowitsch & Flach 2017), thus statistical measures such as collocation analysis (Stefanowitsch & Gries 2003) and measures of productivity (Baayen & Renouf 1996) offer tools to determine a construction’s productivity and the entrenchment of individual constructs. As creative expressions are less likely to be entrenched and less productive, it is assumed that measures of the construction’s frequency, productivity and entrenchment can reversely also be used as indicators for its degree of and potential for creativity.

This corpus study analyses creative instances of adj intensifiers, which is a category that is prone to rapid changes to remain original in communicating the intended meaning. An example for such a creative construction is the animal-taboo construction as it is used in ‘batshit crazy’. These creative intensifying constructions differ substantially in their levels of productivity and entrenchment: the animal-taboo construction is very unproductive and mostly attracted to the adjective ‘crazy’, indicating that this combination is relatively entrenched and potentially less creative. However, there are also constructs that deviate from this entrenched pattern by using different animal or taboo terms or different adjectives.

Examples like this underline the gradient nature of the creativity scale. By applying measures of entrenchment and productivity it becomes possible to systematically compare and to a certain degree also quantify the creativeness of different constructions and constructs.

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The Spanish future tense and subjectivity

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17:15–17:40

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In present-day Spanish, the verbal form usually labelled as “future tense” (*amaré*) has a wide range of uses. Apart from those that are directly related to the expression of posteriority (1), there are others that express epistemic modality and/or inference (2), dubitation or rhetorical question (3), concession/admission (4) and a (usually unpleasant) surprise (5).

1

Mañana estaré-fut en Madrid.

'I will be in Madrid tomorrow'

2

Alguien está tocando la puerta. Será-fut Mario.

'Someone is knocking on the door. It must be Mario'

3

¿Quién será-fut este chico?

'Who could be this boy?'

4

Será-fut un idiota, pero te quiere mucho.

'He might be an idiot, but he loves you a lot.'

5

¡Será-fut idiota!

'What an idiot!'

My claim is that a unified account for all uses of the Spanish future can be based on the notion of *subjectivity*, as defined by Langacker (2006). I introduce the notion of *echo*, which I consider a key element for establishing one defining function of the Spanish future tense, which is common in all its uses. While Langacker's subjectivity is defined as an implicit presence of the *ground* (the communication situation involving the speaker and the hearer) in a construal, I approach the *echo* as an extremely subjective presence of only one of its elements (the speaker or the content of the communication situation) in a construal. I argue that the progressive disappearance of the notion of “posteriority” and the increasing importance of the role of *echo* can be observed with (2)-(5) and perfectly fits the definition of subjectification. This kind of analysis also enables to connect the approaches to the semantics of future tense that accentuate its epistemic characteristics (Giannakidou – Mari 2018) with those emphasising its evidential and mirative elements (Rodríguez Rosique 2015) and to see those notions not in opposition but as inherently connected.

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Building Deep Learning Models to understand Language Processing in the Human Brain

Patrick Krauss

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03 March
16:45–17:10*

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In order to elucidate how language comprehension is algorithmically implemented in the brain, we use a combination of computational and neuroimaging approaches.

State-of-the-art deep neural networks are trained on natural language text data: the German novel “Gut gegen Nordwind” and the English novel “A hitchhiker’s guide to the Galaxy”. Even though, the network architectures together with supervised learning and error backpropagation largely lack biological plausibility, it has already been demonstrated that when trained on image data, the emerging internal representations resemble those in cortical areas of the visual system. Hence, they can certainly not be considered to be good models of knowledge acquisition, but instead they seem to be good models of knowledge representation, at least within the domain of image recognition. Since there is no reason why this should not also be the case for the domain of text/speech recognition, we assume that using this approach can also provide further insight into how language is represented and processed in the human brain. After training, we tested the networks with new, previously not learned test data. As test data we used parts of both books that have been excluded during training. In addition, in order to ensure that the results are not biased by the particular corpus used for network training, we performed an out-of-corpus control, and tested the network trained on “A hitchhiker’s guide to the Galaxy” with text data from “Harry Potter and the Philosopher’s stone”. We visualized the emerging internal representations in the computational models corresponding to the test inputs, and quantified their similarity/dissimilarity with respect to different word classes or combinations of word classes, both derived from POS-tagging.

Remarkably, it turns out that the computational models represent the processed input, i.e. sequences of words, according to the word class of the immediately next word, not being part of the current input word sequence. Even more surprisingly, this behavior can also be found in the case of the expected next two words. Here, the input representations correspond to the combined word classes of the next two words, also not being part of the input sequence. Thus, the artificial neural networks not only manage to infer word classes from the text input that correspond to linguistic definitions, but also derive basic syntactic rules, i.e. grammatically correct transitions of word classes. This behavior is in line with recent theories in cognitive neuroscience that the brain is essentially a “prediction machine”. For this phenomenon, that input representations reflect certain features of the predicted, upcoming input, the term “successor representation” has been coined.

In addition to word class representations, we analyzed the neural network representations with respect to word pairs, being either collocations or non-collocations, in terms of the frequency of occurrence. Here, the results are not as clear as for the word classes which might be due to the, so far, limited capacity of our models. However, also in this case, we find that collocations – according to our rough definition – are represented differently than non-collocations.

To complement computational modelling, we also carried out MEG and EEG measurements of German native speakers using as auditory stimuli the corresponding audio book to the German novel that served as input for the neural networks. In a next step, we will compare the internal representations of the artificial neural networks with human temporal and spatial cortical dynamics, in order to validate whether successor representation of word classes is actually realized in the human brain.

Influence of information structure on the processing of anaphoric reference in German-speaking children and adults

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04 March
12:00–12:25

Referring to referents already mentioned in the discourse represents a central means of establishing referential coherence. The use of anaphoric referring expressions correlates with the discourse referent's relative degree of accessibility (Ariel, 1990). This study investigates to what extent 8-9 year old German-speaking children are able to process anaphoric referring expressions online (*visual world paradigm*, Tanenhaus et al., 1995) and interpret them offline (sentence picture matching task) as an indication of the discourse referents' degree of accessibility. The online results show that, while an adult control group preferred personal pronouns over definite noun phrases when referring to highly accessible discourse referents in the context of topic continuation, the children showed no difference in their gaze behaviour with respect to these two referring expressions. This suggests that the children did not take into account the information-structural function of these two referring expressions in contrast to the adults, which, in line with previous studies (e.g., Järvikivi et al., 2014), suggests that to some extent children weight accessibility factors differently than adults do. Furthermore, the children did not differ from the adults in the offline results, which is interpreted as an indication that the children's executive abilities are already more developed at this age than in younger children, who often perform worse in offline tasks than in online tasks (for an overview: Sekerina, 2015).

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Exploring the conceptualisation of locative events in French, English and Dutch: Insights from eye-tracking on two recognition tasks

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10:30–10:55

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Languages differ greatly on how they encode space, i.e., what aspects of the spatial event are expressed and where (Talmy, 2000). Locative events (e.g. *The jug is on the table*) are no exception. Lemmens (2002) shows that Dutch uses the Cardinal Posture Verbs (CPVs) SIT, STAND and LIE to encode the orientation of the objects, a plate is thus literally ‘standing on the table’ (*Het bord staat op de tafel*). In contrast, French and English prefer the neutral *be*. Orientation is expressed only for non-canonical events or for conversational needs via linguistically marked constructions. Unlike French though, English can somehow rely on CPVs (Lesuisse & Lemmens, 2018). These cross-linguistic preferences raise the question of linguistic relativity (Whorf, 1956): does some habitual encodings of locative events influence the speakers’s mental representations in, and beyond, language use?

Our presentation reports on a recognition task involving eye-tracking which addresses the question of cognitive attention to orientation in verbal and non-verbal conditions. Dutch, English and French participants (N=187) are asked to memorise 36 locative events before a recognition quiz. Between the memorisation phase and the recognition phase, some items change orientation (e.g., a bottle that was in a horizontal -lying- position is displayed in a vertical -standing- position). Our participants first perform the task in a non-verbal setting with interference task. Our results confirm the impact of the language on non-verbal conceptualisation, the Dutch recognition performance and their eye-movements both reveal a higher sensitivity to orientational changes. As for the verbal condition, our findings confirm the expected typological differences and show how language is used as a tool for memory. Eye-tracking also provides further insight on verbal conceptualisation and shows that while English participants *speak* like French participants, they *gaze* like Dutch participants and attend more to the orientation of the objects.

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Native language knowledge: Links to implicit and explicit memory

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11:30–11:55

Intensifying adverbs (e.g. *absolutely*, *completely*, *entirely*, *extremely*, *fully*, *thoroughly*, *totally*, and *utterly*) appear regularly as synonyms in dictionaries and thesauri. In standard grammars of English (e.g. Quirk et al., 1985), all of them belong to one category, e.g. to Maximizers in the Subjunct taxonomy. Other researches based on semantic features (Allerton, 1987), or semantic analysis and collocations (Paradis, 1997) detach extremely from this group, leaving the remaining adverbs united in a set.

However, on the basis of the Principle of no Synonymy (Goldberg, 1995) all of these lexemes must not appear in one category, or at least have different features with respect to other linguistic levels.

The aim of this research is to investigate these intensifying adverbs and to distinguish between them by syntactic and semantic features based on corpus data within a usage-based framework. This includes the survey of the phrases and clause parts that contain the adverbs, and the meaning of the lexemes that modify and are modified by the intensifying adverbs depicting their individual behavioural profiles (adapted from Gries and Divjak, 2009).

The corpus used to survey the distinctive features is a component of the diachronic part of the corpus Web-CorpLSE (<http://www.webcorp.org.uk/>), which represents internet English of the years 2009 and 2010.

For this talk I will present partial results of the findings, precisely the differences between three adverbs, *absolutely*, *completely*, and *totally*. I focus on the syntactic distribution of the lexemes in phrasal structures, and on the semantics of the nouns belonging to the intensification process. The results already show variation in use for all of the intensifying adverbs for both syntactic distribution and the semantics of the related nouns independently.

The overall results are expected to show differences in interactions of the investigated variables, displaying substantial diversity in the usage of all mentioned intensifying adverbs.

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The use of action verbs by Parkinson's Disease patients in spontaneous production – A semantic vector analysis

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03 March

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17:15–17:40

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This study investigates whether Parkinson's Disease (PD) patients exhibit a reduced use of motoric action verbs when producing semi-spontaneous narratives. A large body of evidence has been accumulated showing that parts of the motor system contribute to the processing of motor language (e.g. Pulvermüller 2013). These findings are in line with views of Embodied Cognition (Barsalou 1999), which are a cornerstone of Cognitive Linguistic theories. PD is a disease that primarily affects the motor system, leading to an impairment that is expected to also affect the processing of action language. Indeed evidence has been acquired showing that PD patients exhibit difficulties when processing action verbs (see e.g., Boulenger et al. 2008). This evidence comes exclusively from studies employing controlled experimental paradigms, leaving the question unaddressed to what extent this processing difficulty is reflected in the spontaneous language use of PD patients. The present study aims to fill that gap by analyzing the use of action verbs by PD patients in semi-spontaneous narratives, testing the hypothesis that PD patients use less motor action vocabulary than healthy speakers.

More specifically, the present study compares the use of language denoting motoric actions by 15 PD patients and 15 healthy matched controls who produced narratives in German based on a sequence of pictures depicting parts of well-known fairy tales that include motor events. Since in previous research processing difficulties have been shown predominantly for the verbal domain, a semantic vector analysis of all verbs produced by both groups of speakers was conducted. We calculated the semantic similarity of these verbs to typical hand and foot action verbs by using lists of action verbs from previous research of our own (Klepp et al., 2017). This calculation was based on a nearest-neighboranalysis using cosine similarity values based on word2vec word embeddings (Mikolov et al. 2013). While the analysis is still ongoing, initial results indicate that the verbs used by PD patients are less similar to typical motor action verbs, in line with our hypothesis. This finding would correspond to previous research about the impaired processing of action language in PD patients and extends this result to the domain of spontaneous language use. A reduced usage of motor action vocabulary may be explained by an impaired mental and neural representation of action concepts in PD patients, resulting in a processing burden during language production.

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Cognitive bases for the persuasive effectiveness of implicit strategies

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02 March
14:30–14:55

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In democracy and free market, people are theoretically endowed with *power of choice* as regards their economic and political behaviours. Still, the actual power of choice enjoyed by individuals is significantly reduced by persuasive practices adopted in public communication.

The talk will deal with one of them: *linguistic implicit strategies* when used to *reduce epistemic vigilance* on conveyed information, ensuring acceptance of questionable or even false contents by addressees. It will be highlighted that this practice impacts importantly in relevant sectors of civil cohabitation, typically through commercial advertising and political propaganda.

The *evolutionary bases* for the very possibility of this will be explored (Tversky, Kahneman 1974; Krebs, Dawkins 1984; Gigerenzer 2008), and the *cognitive bases* for its actually taking place (Maillat, Oswald 2009; Sperber et al. 2010; Reboul 2011, 2017; Christiansen, Chater 2016; Lombardi Vallauri 2009, 2016, 2019, 2021). This will include reference to *experimental paradigms* aimed at checking the processing of implicit contents as compared to explicit ones (Schwarz 2015, 2016; Masia et al. 2014; Domaneschi et al. 2018).

Examples of *implication of content* (implicatures and vague expressions) and *implication of responsibility* (presuppositions and topics) when exploited for persuasion in advertising, propaganda, political speeches and social network posts by politicians will be given.

The talk will conclude that widespread social awareness of this phenomenon should be one of the indispensable ingredients for authentically democratic cohabitation.

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Reflexive motion construction in German: to what extent is it equivalent to the way construction in English?

Hiroyuki Miyashita

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15:00–15:30

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It is known that the way construction in English corresponds to reflexive construction in other Germanic languages (Oya 1999, Smirnova 2018). The syntactic pattern [NP_{NOM} V REF PP_{DIR}] shows a similar constructional meaning to the way construction in English. It denotes a subject's motion from a source or toward a goal and the motion is caused by the verbal action, whereby difficult motion is often implied. In the previous research, the similarity between the way construction and reflexive construction has been mainly focused (Oya 1999, Smirnova 2018). In contrast, the present paper will primarily deal with the differences between the constructions in English and German.

The first difference concerns a constraint on verbs which can be embedded into the construction. According to Jackendoff (1990) and Goldberg (1995), the verb must be capable of being construed as a process, i.e., a repeatable or unbounded action. However, this restriction is not applicable to German. The reason lies in that the reflexive motion construction in German can be seen as linked to caused motion construction via instance link (Goldberg 1995). As an extension of caused motion construction, it also refers to a non-repeatable single event. In German, this interpretation represents one meaning of the construction. The second difference between English and German constructions deals with possible interpretations. The way construction has means and manner interpretation (Jackendoff 1990, Goldberg 1995), while the reflexive motion construction in German permits only means interpretation (Oya 1999). I suggest that this difference can be better captured if one assumes two variants of the means interpretation. One variant is the one where the event is construed as one movement caused by multiple actions. The other is the one where the event is construed as multiple movements each caused by the same action. I argue that manner interpretation in English derives from the second type and the derivation reflecting a focus on motion is not allowed in German.

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How vector space models disambiguate adjectives

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The present study is part of a larger research project with the goal of developing tools for large-scale corpus-based semantic analyses. One such tool involves representing semantic structure with vector space models (VSMs), which represent words as vectors of co-occurrence frequencies in a multidimensional space (Lenci, 2018; Turney & Pantel, 2010). At type level, two words are represented as more similar if they tend to co-occur with the same features (e.g. context words). At the token level, two occurrences are more similar if the words in their contexts tend to co-occur with the same features (Heylen et al., 2015).

VSMs are informed by the context and differ based on how such context is defined. Accordingly, we pose the question: do different settings model specific semantic phenomena best? How do different models deal with granularity of meaning or—in the case of this presentation—the prototypicality of the domain of application?

When disambiguating adjectives, the most relevant cue is the noun modified by the target and the domain to which it belongs. However, this domain is not always so clear-cut: the prototypical entities that could be Dutch *hoekig*-1 ‘angular’ (physical objects), *hoekig*-2 ‘fig. broken’ (movements, rhythm) or *hoekig*-3 ‘clumsy’ (people) are more different from each other than the prototypical entities that could be *hachelijk*-1 ‘dangerous’ (enterprises) or *hachelijk*-2 ‘critical’ (situations).

About 200 models of 13 Dutch adjectives were built from a 520MW corpus of contemporary Dutch and Flemish newspapers, by varying multiple parameters. The resulting VSMs were evaluated through visual analytics, with scatterplots where more similar tokens appear closer to each other, combined with manual sense annotation. The results indicate that the semantic distinctiveness of the nouns is not enough to distinguish between senses of an adjective, but it interacts with the frequency and distributional distinctiveness of the alternative nouns.

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Where cognitive automation and socio-communicative ritualisation meet to produce unidirectional grammaticalisation

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11:30–11:55

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Even though cognitive-functional linguistics is devoted to understanding the cognitive as well as the pragmatic and social factors in language change, a comprehensive model of grammaticalisation that ties all these factors together remains a desideratum (cf. Petré & Van de Velde 2018: §2). This paper therefore presents a sketch of a unified grammaticalisation model integrating findings from various usage-based approaches. Like Schmid's (e.g. 2020) recent model of language, the proposed grammaticalisation model is designed around the cognitive dimension of the individual speaker on the one hand, and the socio-communicative dimension of the speech community on the other.

In the minds of individuals, grammaticalisation is a linguistic instance of cognitive automation (cf. Lehmann 2017). Both automation and grammaticalisation occur when uniform stimulus–response pairs are used frequently. Both processes streamline the execution of recurrent (non-)communicative tasks, maximising individuals' processing capacities for more complex tasks. Within the model, Automation is understood specifically as the umbrella term for the cognitive processes that are involved in a construction's shift to a less controlled mode of processing and to more procedural functions, including processes such as chunking, habitation, schematisation and metonymy.

At the community level, grammaticalisation is a linguistic instance of ritualisation (cf. Haiman 1994), i.e. the cultural process whereby instrumental acts turn into independent symbols (e.g. the evolution of shaking hands). Being negotiated in social interaction, a new grammatical sign evolves from an assembly of lexical items, which have more instrumental functions in the sense of being more referential. Within the model proposed, the macro-process of Ritualisation occurs through a variety of subordinate forces, including pragmatic inferencing, diffusion, inflationary effects and normation, among others.

The units of Automation are entrenched linguistic representations (form–meaning pairings), and subject to considerable individual variation. The units of Ritualisation are linguistic conventions, which can be transmitted more directly in socially embedded language learning. Rough correspondences between Automation and Ritualisation emerge solely through usage events and the linguistic structures exchanged in them.

Concerning the puzzle of how grammaticalisation progresses gradually and unidirectionally across generations, the model stresses three aspects. First, increasing community-wide frequency levels provide new points of departure for new generations of speakers to reach higher degrees of Automation on average. Second, younger speakers are likely to learn and use the most advanced variants of a grammaticalising construction at a given point in time since, unlike older speakers, they are not held back by firmly established routines and associations to related structures with more lexical functions. Third, the unidirectionality of grammaticalisation is caused by asymmetries inherent in several components on both dimensions of the model: cognitive automation (vs. control), conceptual metaphor, extravagance (vs. conformity) and inflation (vs. deflation).

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Frames als Frame-Systeme: Angewandte Frame-Forschung und Assoziationsexperimente

Phillip Alexander Neumair

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11:00–11:25

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Die Frame-Semantik fragt nach verstehens- und gebrauchrelevantem Wissen. Wissen wird durch Frames strukturiert und mental repräsentiert (Ziem 2008). So besteht der Frame VOGEL aus den Leerstellen „Größe“, „Farbe“, „Schnabel“. Entsprechende Füllwerte können „groß“, „braun“, „gebogen“ sein (Barsalou 1992: 45), je nachdem, in welchem sprachlichen oder situativen Kontext das Exemplar eingebettet ist. Bei der Frame-Analyse lohnt es sich, Barsalou's (1992) Konzept-Frame-Modell und Fillmore's prädikatives Frame-Modell (vgl. FrameNet) zu kombinieren. Dann können Leerstellen bzw. Füllwerte orientiert an Valenz- und Argumentstellen sowie Adjunkten bzw. durch die Extraktion expliziter Prädikationen (Ziem 2008) ermittelt werden. Anschließend wird nach dem ‚entrenchment‘-Prinzip ein type-Frame aufgestellt: Häufig auftretende *Füllwerte* verfestigen sich mit hoher Wahrscheinlichkeit zu *Standardwerten* und können vorausgesetzt, d.h. müssen nicht weiter expliziert werden. Hier liegt die Problematik für die Analysierenden: *Standardwerte* sind nicht an der sprachlichen Oberfläche sichtbar. Tritt eine bestimmte Prädikation nicht auf, handelt es sich dann um einen marginalisierten Wissensaspekt oder bereits einen *Standardwert*? Diesem Problem kann auf mindestens zwei Arten begegnet werden: Zum einen können die Ergebnisse der eigenen Korpusanalyse mit den Daten eines größeren Korpus abgeglichen werden. So zeigt eine Korpusanalyse (n=100) zu dem Ausdruck ‚Flüchtling‘ eine geringe Anzahl an Prädizierungen, die auf das Herkunftsland der Referenzobjekte verweisen (etwa ‚syrisch‘ oder ‚aus Syrien‘). Der Wortschatz der Universität Leipzig zeigt jedoch ‚syrischer‘ als signifikanten linken Nachbarn, weshalb davon auszugehen ist, dass ein *Standardwert* vorliegt. Eine andere Möglichkeit besteht darin, Frames als assoziative Netzwerke (Busse 2018: 82) aufzufassen. Dieser Möglichkeit wird in diesem Vortrag mit einem experimentellen Paradigma nachgegangen: Unter der Annahme, dass die in einem freien Assoziationsexperiment (Marron & Faust 2018) elizitierten Antworten auf ein Stimulus-Wort Versprachlichungen von Frame-Elementen darstellen, lassen sich Rückschlüsse über die mentalen Repräsentationen von *Standardwerten* ziehen. Die Antworten werden als Werte verstanden, die den Proband_innen in der Interaktion mit der Welt (beim Verstehen sowie der Produktion von Sprache als auch bei nicht-sprachlicher Perzeption) mit sehr hoher Frequenz als *Füllwertekognitiv* verfügbar gemacht wurden und deshalb als *Standardwerte* angesehen werden können. Denn durch das Experimentdesign wird der auslösende Reiz dekontextualisiert verarbeitet: Das Stimulus-Wort ist weder sprachlich noch situativ eingebettet, ergo wird der type-Frame aufgerufen. Die Proband_innen müssen die *Leerstellen* allein auf Basis ihres durch Erfahrung akkumulierten Wissensspeichers füllen. Eine anschließende Frage ist die nach den Relationen zwischen den Konzepten innerhalb des Frame-Systems. Der Vortrag widmet sich auf Basis der Ergebnisse einer Pilotstudie auch dieser Frage und zeigt, auch etwaige Probleme diskutierend, wie eine diskurssemantische Korpusanalyse durch psycholinguistische Methoden ergänzt werden kann.

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Wie dialogisch ist ein Dialog? Gespräch als Schnittstelle von Sprache und Kultur

Masahiko Ozono

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10:30–10:55

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In diesem Vortrag wird das intersubjektive Verhalten von Sprecher und Hörer beim Gespräch besprochen und anhand von Untersuchungen aus dem Deutschen und Japanischen gezeigt, wie unterschiedlich je nach Sprache ein Gespräch von Dialogizität bzw. Monologizität geprägt ist. Darüber hinaus wird darauf eingegangen, in welchem Zusammenhang die sprachlichen Phänomene mit ihrer Kultur stehen.

Nach der üblichen Vorstellung besteht ein Gespräch aus Sprecher und Hörer, zwischen denen Informationen wechselseitig übermittelt werden. Vorausgesetzt wird hierbei, dass sich die Konturen von Sprecher und Hörer gegenseitig klar abzeichnen lassen. Dies gilt aber zu bezweifeln, denn der Hörer wendet sich nicht immer als Gegenüber dem Sprecher zu, sondern er kann sich – in verschiedenen Graden – an den Gedanken oder Gefühlen des Sprechers orientieren. Hierbei kann man von einer „isomorphen“ Haltung sprechen. Den Gegenpol dazu bildet die „komplementäre“ Haltung. Dabei stehen sich Sprecher und Hörer gegenüber und wechseln miteinander ihre aktive und passive Rolle. Dies führt logischerweise zu einem „Dialog“, der durch eine „Face-to-Face-Kommunikation“ mit Blickkontakt gekennzeichnet ist.

Es ist nun durchaus denkbar, dass es Sprachen gibt, die generell eine starke Neigung zur „isomorphen“ Haltung zeigen. Als Beispiel möchte ich die Untersuchungen aus dem Japanischen vorstellen: Die japanische Sprache hat vergleichsweise mehrere Sprachmittel wie Partikeln oder Konstruktionen zur Verfügung, mit denen der Sprecher und der Hörer ihre Perspektive in die gleiche Richtung (d.h. joint attention) zu regulieren versuchen. Die gleiche Tendenz lässt sich auch auf der pragmatischen Ebene finden. Es liegt nun nahe, dass die Zuneigung zu einem der beiden interaktiven Typen (isomorph oder komplementär) auf das Verhalten der Menschen und somit auf die Kultur im Allgemeinen Einfluss ausübt.

Die unterschiedliche Verhaltensweise des Hörers hängt schließlich auch damit zusammen, wie der Sprecher einen Sachverhalt versprachlicht. Um nur die Skizze vorwegzunehmen, zeigt eine „isomorphe“ Haltung eine Affinität mit einer subjektiven Auffassung (subjective construal im Sinne von Langacker 2008 oder Ikegami 2015), wobei der Sprecher einen Sachverhalt aus seiner subjektiven, egozentrischen Perspektive darstellt. Die „komplementäre“ Haltung hingegen geht mit einer objektiven, distanzierten Auffassung (objective construal) einher, bei der die Grenze zwischen dem auffassenden Subjekt und dem aufgefassten Objekt deutlich wird.

(Der Vortrag wird auf Deutsch gehalten.)

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Persian (Farsi) Complex Predicates from a Cognitive Construction Grammar Perspective

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16:45–17:10

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This paper addresses Persian (Farsi) complex predicates (CPs) from a Cognitive Construction Grammar Perspective. These are multi-word predicates comprised of twenty so-called light verbs and a preverbal element (noun, adjective, adverb, preposition, verbal particle, complex noun, noun plus adverb) forming a single conceptual unit. Due to their lexical and phrasal properties, Persian CPs present a compelling challenge to theoretical linguistics. For example, they can undergo derivational processes, but they are also syntactically separable by the negation prefix, future auxiliary, or the direct object clitics. Several proposals have been suggested in the literature to capture the nature of Persian CPs, among them analyses that treat them as solely phrase-like or word-like composites. Mixed analyses that examine them as lexical items (simple verb) by default and as phrasal entities in the non-default occurrence have also been proposed. In this study, I argue that exclusive classification of patterns in inheritance hierarchies cannot explain idiosyncratic properties of CPs in a thoughtful way. In tandem, I demonstrate that a lexical together with an appropriate grammatical account of the Cognitive Construction Grammar approach has none of the shortcomings that classical classification-based analyses have and that it can account for both the phrasal and the lexical hallmarks of Persian complex predicates.

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Need for Cognition, multiple Intelligenz und Grammatikverständnis in heterogenen Klassen der Sekundarstufe I – Ein Schlüssel zum Erfolg?!

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Im vorliegenden Beitrag wird das Konstrukt Need for Cognition (NFC), die multiple Intelligenz und das Grammatikverständnis anhand einer Stichprobe von 77 ein- und mehrsprachigen Schülerinnen und Schülern der 5. Klassenstufe untersucht.

Ziel der empirischen Studie ist der Frage nachzugehen, ob es ein Zusammenhang zwischen dem Konstrukt Need for Cognition, der multiplen Intelligenz und dem Grammatikverständnis besteht. Ein weiteres Ziel der Untersuchung ist zu überprüfen, ob es einen signifikanten Unterschied zwischen den Geschlechtern der untersuchten Kinder bzw. ihrer sprachlichen Sozialisation hinsichtlich des Konstruktes Need for Cognition, der multiplen Intelligenz und der Grammatikkompetenz gibt.

Zu den Forschungsmethoden gehört zunächst das Multiple Intelligences Profiling Questionnaire VII (MIPQ) von Tirri & Nokelainen (2011) zur Erfassung der multiplen Intelligenz der untersuchten mono- und polyglotten Kinder.

Das standardisierte Testverfahren Need for Cognition-Kinderskala (NFC-KIDS) (Preckel & Strobel 2017) dient zur Messung der kognitiven Motivation der befragten Schülerschaft. Das Grammatikverständnis der Fünftklässlerinnen und -klässler wird anhand des standardisierten Testverfahrens TROG-D überprüft. Es wird dabei das Verständnis der grammatischen Strukturen des Deutschen, die durch Flexion, Funktionswörter und Satzstellung markiert werden. Anhand eines schriftlichen Fragebogens werden darüber hinaus ergänzende Informationen zu familiären Struktur- und Prozessmerkmalen der an der Studie teilnehmenden Schülerschaft erfasst.

Für kategoriale Variablen werden absolute und relative Häufigkeiten angegeben, für kontinuierliche Größen werden Minimum, Median, Maximum, Mittelwert (MW) und Standardabweichung (SD) berechnet.

Der Zusammenhang zweier kategorialer Variablen wird unter Verwendung des Chi-Quadrat-Unabhängigkeits-Tests untersucht. Zum Zweigruppen-Vergleich bei kontinuierlichen Variablen wird zunächst mittels Shapiro-Wilk-Test die Normalverteilungsannahme geprüft, weichen zu viele Gruppen von dieser Annahme ab, wird der non-parametrische Mann-Whitney-U-Test verwendet, andernfalls kann der t-Test für unabhängige Stichproben verwendet werden.

Für die Analyse des Zusammenhangs zweier kontinuierlicher Variablen wird der Korrelationskoeffizient nach Pearson berechnet und eine Regressionsanalyse durchgeführt. Die graphische Darstellung erfolgt mittels Balken- und Streudiagramme. Alle Analysen wurden mit R Version 3.6.2 (Dezember 2019) durchgeführt.

Die Befundlage der deskriptiven Analyse und der inferenzstatistischen Prüfung wird in die Deutschlehrkräfteausbildung transferiert, da die Ergebnisse der untersuchten Stichprobe grundlegende Erkenntnisse für die Praxis erbringen, denn trotz der Relevanz der Konstrukte liegen im deutschsprachigen Raum kaum Studien im schulischen Bereich vor.

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Genitive variation in Danish and Swedish – the iconic motivation

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10:30–10:55

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Genitive variation—the choice of either the s-genitive or the prepositional construction—is a thoroughly researched phenomenon in English (e.g. Rosenbach 2002) but considerably less so in other Germanic languages, such as Danish and Swedish. The two constructions are largely interchangeable in Danish and Swedish; however, some constraints on their use can still be identified.

The constraints on genitive variation in Danish and Swedish analysed in this paper include animacy, length of the phrase, definiteness and topicality of the possessor phrase, as well as semantic notions of possession. Factors influencing the choice of possessives will be regarded in terms of iconic motivation (Haiman 1983; Givón 1995). The possessive NPs in which referents are considered to be more bonded and conceptually closer (such as kinship or part-whole) are predicted to be more frequent with the s-genitive, as it is a more compact construction than PPs. The iconicity of possessives can also be seen in broader terms as a reflection of the underlying relation between the referents in a possessive NP, which can be largely subsumed under the schemas of existence or location (Heine 2001). The hypothesis is that the schema of existence will be expressed through the s-genitive, while the schema of location will be expressed through prepositional phrases, as prepositions are often the primary means to express location.

The aim of this study is to explore the variation between the s-genitive and possessive prepositional phrases in Danish and Swedish. Statistical tools, such as Logistic Regression and Classification Tree Analysis, are used to measure the importance of the contributing factors in the choice of each construction. The study is conducted on a newly-made corpus of contemporary texts. The preliminary results for Swedish indicate that, similarly to English, the s-genitive construction favours human, topical and shorter possessor phrases. The iconic motivation in the factors is visible, among others, in examples with body parts, in which the s-genitive is used almost exclusively.

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Image schemas as potential news stories: A case of BBC texts

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Media studies have come up with a number of criteria for newsworthiness influencing selection of reported events: proximity, change, prominence, conflict, timeliness, usefulness, the unusual (Cotter 2011: 75). This presentation argues that newsworthiness mainly rests on image schemas, i.e. dynamic recurring patterns of organism-environment interactions (Johnson 1987: ix). Proximity is related to FAR – NEAR; prominence is linked to CENTER – PERIPHERY and to VERTICALITY underlying the formation of hierarchies; conflicts are based on the transformations of COUNTERFORCE; change derives from the modification of schemas for force and motion.

In news stories image schemas also determine the choice of predicates and their arguments in the Headline, Main and Previous event paragraphs (Dijk 1985: 74) mainly structured in two ways. Canonical utterances foreground the name of the source affecting the target in conformity with the underlying schema as is the case with COUNTERFORCE, capturing the head-on meeting of forces (Johnson 1987: 45), e.g. *European cities grapple with dangerous smog levels* (16.01.2020). Non-canonical statements foreground units referring to the target with the source name backgrounded or indicated in the text body. It is exemplified by COMPULSION, representing the experience of being moved (ibid., 45): *Unvaccinated Samoans told to hang out red flag* (4.12.2019). The nouns in the cited examples suggest that image-schematic presentation of the participants may be uniplex or multiplex identified with respect to the schemas of the perceptual succession encompassing MASS – COLLECTION – COUNT – OBJECT.

The undertaken analysis homogenizes the classification of image schemas for force with respect to their evolvment. Each schema has the beginning and an abrupt or gradual ending leading to its transformation into an adjacent schema. For instance, the COUNTERFORCE termination results into CONTACT initiation and its further evolvment rendering a varying closeness between the parties, etc.

To conclude, since both image schemas and news derive from the human sensorimotor experience the former permeate news discourse at several levels: newsworthiness, i.e. selection of reported events, their framing and choice of naming units.

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Uses of ‘free-standing’ *sondern* in spoken German – dealing with inferences from negated utterances

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Wednesday,
02 March

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Negated constituents verbalize a contextually relevant non-alternative and evoke a set of possible alternatives. In many contexts, negated utterances cannot end a turn because they make expectable an elaboration (Ford 2001). The German conjunction *sondern* (‘but rather/instead’) introduces the only true or contextually relevant alternative to a negated first conjunct. In conversational data, this alternative is often realized in a delayed fashion, with *sondern* used as a turn-holding device (Proske, *subm.*).

My contribution focuses on cases in which the alternative is not verbalized at all, that is, ‘free-standing’ uses of *sondern*. These belong to two different types: a) Full turns consisting of *sondern* only that are used by a second speaker to ‘prompt’ (Lerner 2004) elaboration of a negated utterance of a first speaker (see 1). b) Turns that end with *sondern*. These can be cut-offs, but also cases of (possible) aposiopesis (Imo 2011), where the positive alternative has to be inferred (see 2). Using the methods of Interactional Linguistics (IL), it will be described in which conversational contexts the two types occur, where they overlap, and which inferences from negated utterances allow interlocutors to use them. Data come from the corpus FOLK (<http://agd.ids-mannheim.de/folk.shtml>).

(1) EM: hat aber net zwei drei EUro gekostet wie der norbert gesagt hat.

CM: SONdern?

EM: FÜNFzehn.

(2) EL: ja man is nich so (0.6) jebunden an irgend_n CHEF;

wo denn der CHEF sagt wo et langgeht,

sondern– (4.68)

NO: ((lacht))

EL: hm_hm.

The following theoretical and methodological implications will be discussed:

- Are the two ‘free-standing’ types constructions in their own right (because of their distinct pragmatic and formal characteristics) or are they contextual variants of the bipartite NEG-*sondern* construction?
- Combining IL with usage-based construction grammar can be seen as an interdisciplinary endeavour (Zeschel/Proske 2015). Traditionally ‘anti-mentalistic’ IL needs cognitive approaches to explain certain processes of meaning constitution (e.g., inferences). Cognitive approaches can benefit from IL’s experience with empirical analyses of specifically oral and interactional phenomena.

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The Conceptual Motivation of the English System of Aspect

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Friday,
04 March
16:45–17:10

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English aspect looks fairly unsystematic compared to aspect in Slavic languages. In English, the progressive aspect is used for ongoing events (*Mary is calling*) and the simple aspect for complete events (*Mary called*), states (*Sally is happy*), habituals (*Paul works from home*) and generics (*Things break*). Slavic languages distinguish perfective aspect (complete events) and imperfective aspect (ongoing events, states, habituals). This distinction is well motivated. Perfective situations are bounded and heterogeneous, imperfective situations are unbounded and homogeneous.

English	Simple complete events	states	habituals	Progressive ongoing events
Slavic	complete events Perfective	states	habituals Imperfective	ongoing events

The distribution of the simple and progressive forms in English is less clearly motivated. The simple aspect, however, can be assumed to be associated with meaning. The three situation types it subsumes share the semantic property of completeness. Due to the homogeneity of states and habituals, any portion of them is identical to any other portion and, most importantly, to the state or habitual as a whole. A portion of a state of a habitual thus also represents a complete situation.

English aspect also displays Perfective/Imperfective behaviour. Complete events are incompatible with the present tense because we cannot see an event as a whole at the moment of speaking. In the ecology of the system, the slot of the simple present tense is thus available to be filled by other situation types. Due to their unboundedness, states and habituals are compatible with present time and the present tense and are, moreover, uniquely identifiable in this position. In the past tense, however, the form of habituals coincides with that of complete events. Potential ambiguities might be resolved by using a repetitive adverb such as *always*, but a more efficient solution is, of course, using an aspectual marker for past habituals, *used to*. Note that there is no need for a present form *use to*.

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The status of word class sub-categories based on evidence from multivariate frequency densities

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13:30–13:55

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A category does not equal a category. Even between related sub-categories such as morphological classes of nouns (count noun, mass noun, plurale tantum), there are notable asymmetries. These asymmetries manifest in formal and semantic properties, productivity, and also frequency distribution. A singular-only noun seems to be the logical opposite of a plural-only noun, but in reality those categories behave very differently. I will argue that frequency distributions can be operationalized to provide insight into the categorical status, and furthermore extend the idea to more problematic category distinctions. The fundamental question of the present study is what should count as a linguistic category and what should not. The main focus is on the system of word classes.

From the perspective taken here, there are linguistic categories that correlate with salient clusters of features while being clearly distinct from neighboring categories, whereas others have much less defined continuous boundaries. According to the prevalent literature in Cognitive Linguistics, distinctiveness plays a crucial role for word class categories. In a prototype approach to word class categories, a lexical cluster based on formal and semantic features should not only exist (principle of similarity), but also be sufficiently distinct in order to qualify as a linguistic category.

I will demonstrate how (multivariate) frequency densities and statistical modeling thereof might provide information about how the category space is organized. The current observations suggest that minor categories like plural-less nouns (plurale tantum) do form clusters, however, these clusters are much less pronounced than the ones formed by the related mass nouns. Especially the absence and presence of formal markers for specific lexemes easily introduces clustering effects at the extreme ends. The same approach is then explored on the issue of the gerund vs. participle distinction. Finally, I will argue that different types of density peaks in a multidimensional category space allow for two major interpretations: first, not every correlation accounts for a linguistic category; second, even randomly occurring correlations are potentially salient categories in an emergent system if there is a conceptual motivation.

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The Effect of Cognitive Linguistic Inspired Interventions on Noticing and Usage of Formulaic Chunks

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16:45–17:10

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Developing advanced language abilities presents a particular challenge to second language (L2) learners because of the formulaic nature of language (e.g., Howarth, 1998; Verspoor, 2008). In fact, formulaic language use is a 92% predictor of language proficiency (Crossley et al., 2011). While some restrictions about which words can be combined are semantically motivated (e.g., *drive a car*), many others appear arbitrary to learners (e.g., *ride a bike* vs. **drive a bike*). Naturally, noticing (Peters, 2012) a formula in the input and identifying its boundaries and components is the first step to establishing a formulaic form-meaning connection (FFMC). Consequently, learners need to be aware of the formulaic character of language. Yet, studies have proven otherwise (e.g., Arnaud & Savignon, 1997). The current investigation integrated three research areas: corpus linguistics which has established that much of language is formulaic; second language writing research on textual borrowing which has assessed how students interact with textual input; and cognitive linguistics inspired teaching materials which have explored explanations of polysemy and metaphorical extensions to reduce the apparent arbitrariness of language use.

This investigation assessed whether raising learners' awareness of formulaic chunks through explicit instruction on polysemy and metaphorical extension affects a) noticing, b) the ability to identify the correct boundaries and formulaic components, and c) the ability to use formulaic chunks in writing. Eighty-seven intermediate learners of German wrote two essays using wiki technology. Students were instructed on the formulaic character of language and asked to take notes on the texts they read for the assignment in a separate wiki page. The experimental condition received instruction on polysemy and practiced noticing the motivation behind formulaic chunks. The control condition did not receive any instruction. The note-taking page was analyzed for the quantity, the completeness (semantic meaning) and the correct components (form) of chunks. Final essays were analyzed for the correct use of chunks students took notes of and chunks they had not taken notes of.

Results showed that instruction on polysemy had a significant impact on note taking and on the correct use of formulaic language. The control group took mostly notes of individual words or chunks using L1 inspired translations. The experimental group took notes in form of multi-word chunks and exhibited multiple patterns: learners used formulaic chunks with an awareness of polysemy and metaphorical extensions. However, they omitted grammatical components of chunks (prepositions, reflexive adjectives), or copied components inaccurately from the input passage. These patterns were also reflected in the final essay. These results will be discussed in light of developing an advanced bilingual lexicon and usage-based approaches to second language learning and teaching.

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What do violists and linguists have in common? The viola joke! – A linguistic analysis

Julia Salzinger

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04 March
16:15–16:40

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Humor is a core aspect of social interactions between humans and it can be used to enhance or challenge interpersonal and social relations. A characteristic feature of jokes is targeting a certain group that holds some stereotypical qualities, which are subject to humorous treatment. In the orchestra, this group is usually the viola section.

An orchestra, like any other professional group, has its own in-group humor, which is very often only comprehensible within the confined circle of its members or members of the profession (musicians). Understanding the relationship between a lexeme/signifier related to the nature of the professional group, and the signified/concept can be a challenge to an outsider, especially if specialist vocabulary or musical knowledge is required. Viola jokes often work with icons, where the signifier resembles the signified. This is especially true for the German versions of these jokes, which often play around with the German word for the viola (Bratsche).

- (1) Why is a viola called Bratsche in German? – Because that is the sound it makes when you step on it.

Other viola jokes play around with signs that have one identical signifier, but different (signified) concepts and understanding the ambiguity creates the humor (Attardo&Raskin 1991).

- (2) What do a viola and a lawsuit have in common? – Everyone is happy when the case is closed! They are similar to the last category. Many viola jokes play with the concept that viola players are lazy, slow and/or dumb and these jokes are often based on two opposing scripts or schemas (3) (Simpson 2004, Raskin 1985). In the beginning of the joke, a specific cognitive schema is activated which constructs expectations, e.g. terrorists hijacking a plane. These expectations however, clash when the second schema is activated, because they stand in incongruity to each other (e.g. hostages are released instead of shot).

- (3) A group of terrorists hijacked a plane full of violists. They called down to ground control with their list of demands and added that if their demands weren't met, they would release one violist every hour.

This study aims at two complementary aspects, one the one hand, it will look at the way we use very specific signs and connected cognitive schemas to create humor. On the other hand, it will look at social aspects. According to humor studies, the targeted group (viola players) is the out-group which is made fun of by an in-group (joke teller), however, in many orchestras, out-group and in-group are the same people, creating a new group constellation that has so far been ignored. Focusing on the incongruous, humorous idiosyncrasies of humor deployed by and among musicians, this study aims to shed some light on the contents and forms of humor produced by and about this specific group.

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Corona pandemic: how we talk about it is how we understand it

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13:30–13:55

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My talk is about an exploratory study of how we construct meaning from verbal utterances - or vice versa - how we encode our ideas in language. From a usage-based linguistic/cognitive-semantic perspective, I will present an exemplary analysis of the effects linguistic expressions used in newspaper texts about the corona pandemic may have on the comprehension of information. In particular I will check them with respect to what kind of information they activate as background knowledge.

The procedure is based on the assumption that words (and larger verbal units) serve as access points to huge knowledge structures, with the expressions profiling a particular concept against a base related to various domains (cf. eg Langacker 1987). A second assumption is that the expressions people choose for the verbalization of their ideas give these a particular perspective. This is of special interest in the discussion about framing (among others in Lakoff & Ferguson 2006 and a number of metaphor studies, such as Parsi 2016; Ritchie & Cameron, 2014; Semino, Demjén & Demmen, 2018), but has already been topicalized in early cognitive-semantic research as the phenomenon of construal (and perspective in particular) (cf Langacker 1987: 116–137, 2008: 55-89; Talmi 1988: 165-205, for example).

Seen from this angle, the noticeable occurrence in the corona coverage of such expressions as *lockdown*, *death toll*, *taskforce*, *worst-case scenario*, or *mitigation* called for an investigation of what kinds of conceptualizations they will (or can) trigger. These are expected to be accessible via the collocational behavior of the selected expressions, which therefore is inspected more generally in English usage data collected in larger corpora (eg the Synchronic English Web Corpus). By the identification of the usual collocates of the respective keywords and the (lexical) constructions they enter into we get information on (some of) the wider semantic contexts and scenarios native speakers of English typically associate with them. As a rule, these can also be assumed to be available to readers in the decoding of the texts, whenever the respective expression turns up, thus influencing the construction of meaning. Hence, by consciously selecting particular expressions in the presentation of facts journalists can direct and impinge on the readership with respect to how they make sense of the linguistic input.

I will, secondly, consider how the facts of the pandemic are presented in the news reports at the level of syntax, because also here, speakers/writers have a choice regarding the perspectivization of a particular proposition. My focus will be on the choice of modal verb constructions, as they are a major means in the perspectivization and subjective construal of reality.

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“Was zum verfuckten Kuckuck soll denn das?”

On the variation in German IAW structures, focusing on “zum/zur X”

Steven Schoonjans

Friday,
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16:45–17:10

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Stefanowitsch (2011) introduced the term “WhIAW-construction” to refer to a particular kind of intensification in wh-questions, viz. intensification by means of an element such as *in aller Welt* ‘in all world’ (1), *zur Hölle* ‘the hell’, *zum Teufel* ‘the devil’ (2), *um Himmels willen* ‘for heaven’s sake’, and *in drei Teufels Namen* ‘in three devils’s name’. Mirroring the terminology used by Stefanowitsch, these elements are called “IAW structures”.

(1) Was *in aller Welt* will Frau Merkel erreichen? (Stefanowitsch 2011:190)

‘What *in aller Welt* does Merkel want to achieve?’

(2) Was *zum Teufel* machst du da oben? (COSMAS-II)

‘What *zum Teufel* are you doing up there?’

However, the diversity is much bigger than the traditional examples given by Stefanowitsch suggest. The COSMAS-II Archive *W* (release DeReKo-2015-II), for instance, contains 37 different structures, and an internet search rendered over 2000 different structures. This diversity is mainly due to creative modifications of the pattern *zum/zur X* (instantiated by *zum Teufel* and *zur Hölle*), for which more than 1100 different types could be found. In fact, the X slot in *zum/zur X* seems to be open meanwhile to nearly any noun. Examples include *zum Osterhase* ‘by the Easter Bunny’, *zur Makrele* ‘by the mackerel’, *zum fliegenden Fischstäbchen* ‘by the flying fish stick’, and *zu Merlins langen Unterhosen* ‘by Merlin’s long underpants’. In this presentation, I give a more systematic overview of this diversity and reflect upon the mechanisms that explain it, starting out from the data just described (COSMAS-II and the aforementioned internet search). Apart from a quantitative analysis of the productivity of the pattern, I relate the variation found here to mechanisms of phraseological modification, especially substitution and expansion (cf. e.g. Sabban 2007), and I discuss some tendencies that seem to be at play. These include a preference for vulgar and negatively connotated nouns, context-related ad hoc wordplay and the use of community-specific structures as found, e.g., in the Harry Potter and SpongeBob fan communities.

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A constructional sketch of the BIG MESS family in English

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17:15–17:40

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This paper investigates the BIG MESS construction in EModE and PDE:

- (1) your only worry is **how big a mess** you made (2000, SPOK)
- (2) perhaps "disapproval" is **too strong a word** (2017, FIC)
- (3) **So great a friend** is Laso, in fact, **that he hasn't let the** ... (1992, SPOK)

The BIG MESS is a peculiar type of noun phrase which deviates from canonical word order with a degree adverb adjective sequence oddly positioned before the indefinite determiner *a* (ex. 1–3). The construction has been researched in different frameworks (e.g. Van Eynde 2007; Kay & Paul 2012; Kim & Sells 2011) and has also been investigated diachronically (e.g. Van de Velde 2019). However, no paper exists which a) analyzes this construction quantitatively in PDE and EModE focusing on the used degree words (*so, as, too, how, this, that, however*) and b) tries to sketch the constructional network of the BIG MESS family with its various subtypes in detail. Using COCA and EEBO data the construction's frequency, distribution and productivity will be analyzed. The paper subscribes to usage-based CxG (e.g. Diessel 2019, Goldberg 2019). It is argued that several different templates exist: e.g. [*how* ADJ_{qualifying} (of) *a* CN_{sg}]_{Cx}; or [*too* ADJ_{qualifying} (of) *a* CN_{sg}]_{Cx}. It will be discussed how the subtypes differ from each other with regards to their form and function. I will also elaborate on the frequent feature of 'discontinuous modification' (ex.3) and the possibility of Multiple Inheritance.

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Register, genre, style? Micro-level operation of meaning on the macro-level of discourse

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02 March
11:00–11:25

Despite growing interest in discourse phenomena in linguistic theory, our understanding of linguistic structure beyond the sentence level is still far from complete. One of the unresolved issues concerns the nature of meaning construction on the macro-level of discourse interpretation, as opposed to meaning aspects associated with each individual construction on the linguistic micro-level of the sentence. It has been common practice to classify concepts of macro-level meaning into different types, such as the well-known distinction between concepts that represent “functions” with respect to a given communicative situation (medium, setting, communicative purposes, for example), commonly referred to with the terms “register” or “genre” – and on the other hand concepts associated with aesthetic or artistic aspects of discourse interpretation referred to as “style” (cf. Biber & Conrad 2009: 15-19).

This paper will argue that the distinction between register, genre and style may be useful to label different domains of analysis, but is elusive when it comes to our understanding of the underlying linguistic operation of discourse meaning. To do so, it reports analyses of deviant uses – associated with the typically “literary” artistic concept of *foregrounding* - of verb tenses and causality markers marking perspectivization effects in a corpus of Dutch literary fiction (associated with aesthetic, artistic meaning) and various news genres (associated with functional situational meaning).

The findings suggest that while it obviously makes sense to relate linguistic patterns to domain-specific concepts reflecting different analytical interests, the underlying cognitive and linguistic micro-level operations of deviant uses of verbs and connectives are the same across the genres analyzed. In all of the genres analyzed, deviant usages could be analyzed as deliberate construals in the sense of Langacker (1987), contributing to a macro level discourse interpretation emerging (in the sense of Bybee & Hopper 2001) from the inherent meaning of verb or connective, its linguistic and its non-linguistic situational context. As for the conceptual distinction between aesthetic/artistic and functional meaning itself, it turned out that deviant uses could not be identified without considering the situational aspects of the discourse, even in the literary genre. I will argue that an analysis of meaning construction on the discourse level starting from the linguistic and cognitive operation of micro-level linguistic constructions instead of pre-defined domains of analysis yields an understanding that is not only more descriptively adequate but also allows for integration with more general aspects of linguistic theory.

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Cognitive rhetorical approach to reporting speeches in the news: a case of queen Elizabeth II Christmas message

Nataliia Talavira

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15:00–15:35

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Queen Elizabeth II's Christmas messages are rendered in the news via direct or indirect quotes changing the structure and content of the initial address. This presentation analyses how news texts report Queen's 2019 Christmas broadcast applying cognitive rhetorical approach combining canons of invention, i.e. topic choice; disposition, concerning textual arrangement; elocution, naming arguments (Lauer, 2004) with constructions, i.e. prefabricated form-meaning pairings (Goldberg, 2006), rendering quoted ideas at a deeper semantic level than separate words.

With respect to their structure constructions employed in the Christmas address and related news texts fall into two groups: identical, i.e. similar in the texts of both genres, and modified, with replaced elements. Modified pairings are of two types: syntactical, i.e. altered word order, and lexicalized, keeping key words with the meaning of dependent elements transformed into two directions: generalization, i.e. words with more abstract meaning; and specification, designating particular entities.

The Queen's 2019 Christmas message covers seven topics arranged dispositionally in the order of their importance for her Majesty. In ten analysed news stories those key ideas are arranged in a chronological order (7 texts), in the reverse order (2) or focus on the topic highlighted in the headline (1).

From elocutionary viewpoint, syntactical construction modification concerns a change of structure of the original units: the paring *the path [...] may this year have felt quite bumpy* (Queen, 2019) transforms into *a bumpy year* (<https://time.com>) in two texts out of ten.

Lexicalized generalization occurs in the *Express*: the original construction *Neil Armstrong taking a small step* (Queen, 2019) is replaced by *moon landing*.

Lexicalized specification transforms the statement *new generations have brought a similar sense of purpose to issues such as protecting our climate* (Queen, 2019) into *young climate change activists* (*Telegraph*) where *new generations* is replaced by the adjective *young*, construction *climate change activists* replaces *protecting our climate*.

To conclude, cognitive rhetorical approach to the comparison of texts of different genres reveals transformations of the original text at two levels: dispositional concerning patterns of arranging ideas and elocutionary with constructions performing syntactical, specifying and generalizing functions of rendering ideas from the original text.

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The expression of speed-related information: a corpus study of Estonian motion verbs

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The expression of motion events (Talmy 2000) is highly complex consisting of many dimensions that the speaker has a choice to include in her expression (Cardini 2008; Slobin et al. 2014). One such dimension is the speed of motion as a subcategory of manner. Being a “pervasive underlying dimension” of motion (Slobin et al. 2014: 728), motion expressions convey speed information one way or another. Driven by the fact that relatively little is known about the linguistic expression of speed, the current corpus study focuses on the expression of speed-related information in the Estonian language. We aim to compare the semantic structure of motion clauses of the verbs differing in the speed they depict and to evaluate the role of speed information in motion clauses. For that, we analyse motion clauses of the verbs (N = 41) that range from depicting fast motion (e.g., *kihutama* ‘race’) to slow motion (e.g., *lonkima* ‘stroll’). Three hundred clauses per verb are taken from the Estonian National Corpus 2019, resulting in 12,300 clauses in total. Clauses are tagged for a range of variables and include (i) verb-related variables, such as the speed (fast, medium, slow) and type of verb (manner vs. path verbs); and (ii) semantic variables of a clause, such as Source and Goal. The data is analysed by means of multiple correspondence analysis, and conditional random forests and inference trees. The results indicate that fast vs. slow motion verbs have somewhat distinct clausal patterns. Namely, fast motion verbs tend to co-occur with Goal, Purpose, and/or Direction expressions, whereas slow motion verbs tend to combine with Location expressions. Nevertheless, the semantics of the verbs in terms of expressing path or manner is more important than speed. That is, goal-oriented path verbs tend to co-occur with Goal (e.g., *suundus metsa* ‘(s)he headed to the forest’), source-oriented path verbs with Source (e.g., *väljus toast* ‘(s)he exited the room’), and manner verbs with Manner (*jooksis kiiresti* ‘(s)he ran fast’). This provides evidence for congruency as a major underlying factor of clausal patterns in motion events.

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An analysis of the metaphorical etymological network structure of the English language

Marie Teich

Thursday,
03 March
17:15–17:40

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The idea of Conceptual Metaphor Theory is that language is systematically permeated by metaphorical mappings that allow to structure abstract topics through concrete embodied domains. This so far has been richly documented and investigated by separate case studies. Complementarily, the present study aims towards a new integrated statistical analysis of the metaphorical network underling the English language.

A graph-theoretical modelling of a large dataset given by the Metaphor Mapping project of the historical Thesaurus aims towards understanding the systematicity behind the sources and targets of metaphors throughout topic domains. We show a classification of the domains by means of their relation among each other through the in- and out-degree distributions of the graph. Furthermore a statistical motif analysis gives insight to the local network behaviour which allows to discriminate among competing metaphor theories.

It was found that the probability of domains to serve as sources of metaphors is far from uniform, which is characterized by a heavy tail distribution with high skewness for the out-degrees. The class of highly source-full categories consist of concrete, early acquired domains like 'food', 'shape' and 'position', for which in- and out-degree are positively correlated. In contrast to this, abstract domains that form the most important metaphor targets like 'emotional suffering', 'literature' and 'bad' almost never serve as origins of metaphors. The motif distribution analysis led to the surprising result that metaphors are most rarely motivated by structural comparison as it showed a significant lack of transitive triangles (z-score: -6.36) compared to configuration graphs. Additionally, our findings show that the category of space only constitutes a rich metaphor source along several others in opposition to the widespread assumptions that space occupies a singular bottleneck position in the metaphoric network.

In general, these results support the structure building hypothesis of metaphor in language in contrast to other metaphor theories and refine the viewing of the main mappings.

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Towards a Typology of Extended Spatial Description in Japanese

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Friday,
04 March
11:30–11:55

This paper aims to describe and analyze perspectives (‘strategies’) of spatial description in Japanese native speakers. This work contributes to the typology of the perspectives of spatial description in Japanese through qualitative and quantitative analyses of materials obtained through the spontaneous speech experiment.

Annotation of the expressions of spatial relations and detection of spatial description perspectives in this paper primarily follow the basic principles outlined by Kobozeva (2000). The grounds of her approach lay in the work of Talmy (1983), and the typology of the ‘strategies’ Kobozeva proposes intersects with the notion of perspective developed by Taylor and Tversky (1996). Kobozeva derives four ‘strategies’ of spatial description Frame (FS), Path (PS), Outstanding Objects (SOO) and Scanning (SS). In addition to description perspectives proposed by Kobozeva, a pattern of description provisionally called Perspective (PRS) is detected in this study.

The outcome of the analysis of the types of spatial descriptions within each of the perspectives demonstrates that there are differences from what was suggested in previous works on the topic written on the basis of European languages material e.g., Taylor and Tversky (1996). The most significant differences are 1. prevalence of intrinsic frame of reference in scanning perspectives in Japanese, as opposed to relative frame of reference in English; 2. presence of variation of scanning – a perspective scanning based on scanning based not on “left”/“right” scanning axis, as typically found in English (Taylor and Tversky 1996) or in Russian (Kobozeva 2000), but on the “closer/further away” axis.

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Learning to predict - second language perception of reduced multi-word sequences

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*Wednesday,
02 March
17:15–17:40*

The cognitive entrenchment of frequently occurring sequences comes in the form of ‘chunking’ (accessing the sequence as a single unit) and of ‘procedure strengthening’ (predicting the next step in a sequence). Existing research attests to the effects of frequency and entrenchment of multi-word sequences in the native language, which we learn and shape continuously and intuitively (cf. Blumenthal-Dramé 2018; Arnon & Snider 2010; Sosa & Macfarlane 2002). But how do they affect L2 speakers, whose acquisition of linguistic structures is top-down (through language teaching) but who might nonetheless also learn through usage? (cf. Ellis 2013; Ellis et al. 2016; Supasiraprapa 2019).

The present study addresses the issue of receptive processing of multi-word sequences by means of a word-monitoring experiment with advanced learners of English. Recognition (response time and accuracy) of the element *to* in the construction $V\text{-}to\text{-}V_{\text{inf}}$ was tested for full and reduced renderings ([tʊ] vs [rə]), conditioned by the general frequency of the $V\text{-}to$ sequence and the transitional probability (TP) of *to* given the verb ($V > to$). The experiment has previously been carried out with native speakers (Authors 2019), so the results can be compared directly.

Results show that recognition is slower and less accurate with reduced items. This is mitigated when the sequence has a high surface frequency. TP has no such effect. Thus, advanced learners seem to profit from frequency-based expectations in speech perception, but not from relative probabilities in a sequence. Native speakers show a different pattern when reduction is present, most notably a chunking effect of high-frequency strings and a facilitating effect of TP.

We conclude that, firstly, advanced learners’ access to linguistic structures is more compositional than native speakers’, with weaker entrenchment of holistic representations of frequent sequences. Secondly, they do take recourse to general frequency information to recover reduced input forms, but do not seem to derive expectations from transitional probabilities; as TP is more complex than surface frequency, it probably requires more and richer usage experience to become part of a language user’s intuitive perception strategies. Overall, reduction implies a greater setback for learners, who do not (yet) rely as heavily on the statistical information and compensation strategies generally available to native speakers (cf. Ernestus et al. 2002; Pickering and Garrod 2007).

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The face of the sky – Body-part extensions from a cross-linguistic perspective

Annika Tjuka

Friday,
04 March
10:30–10:55

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Body-part terms have multiple meanings in many languages. The body-part term *mặt* ‘face,’ for example, is metaphorically extended to denote the sun in Vietnamese: *mặt trời*, lit. ‘face of the sky.’ Other languages use the metaphor ‘eye of the day’ to refer to the sun. These different choices of extensions to the same object with different body-part terms are revealed when studying the meanings of body-part terms from a cross-linguistic perspective.

In this talk, I focus on body-part extensions that are established by a connection of similarity features between body-part and object. Kraska-Szlenk (2014) observed that extensions of body-part terms to the object domain are based on visual, spatial, and functional features. Levinson (1994) demonstrated that shape is a productive feature which leads to multiple body-part extensions to objects in Tzeltal. Tilbe (2017) showed that Tzeltal speakers use shape features significantly more often to group objects together, whereas English speakers prefer the function of objects as a shared basis for their categorization. Tjuka (2019) found that languages differ in their preference to use the similarity features shape, spatial alignment, and function and showed variation in the use of body-part terms for the same object part. For example, the ‘tip of the arrow’ is nose in Vietnamese and Marathi compared to head in Mandarin Chinese and Hebrew.

The present study analyzed body-part extensions across languages by using data from the Database of Cross-Linguistic Colexifications (CLICS³, Rzymiski et al. 2020). The results showed that body-part terms commonly refer to other body-parts as in the colexification mouth~lip in 121 languages, whereas body-part extensions to objects such as mouth~door are less frequent (16 languages). The systematic comparison revealed the use of different similarity features to establish a body-part extension. The study sheds light on patterns of body-part extensions across languages.

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Nonlinear Dynamics of Eye Movements during Text Reading

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*Thursday,
03 March
12:00–12:25*

How can we quantify the coupling between a text and reading performance? The hypothesis of reading time regularity (RTR) states that the degree of regularity in measures of the reading process (e.g., reading times or eye movements) is informative about reading fluency and comprehension. Hence, RTR captures the extent to which relevant linguistic information of a text controls its perceptual-cognitive processing during reading (Wallot, 2014 & 2016). The current study provides a test for the basic assumption of the hypothesis, namely, that eye movement fluctuations contingent on linguistic information differ in their temporal structure from endogenous fluctuations of eye movements that are not contingent on external information.

Eye movements of 25 native speakers of German with normal or corrected-to-normal vision were recorded with a sampling rate of 1000 Hz. Three reading-unrelated conditions served as ‘baselines’ for eye movements in the absence of external information (looking at a blank screen, a fixation cross, and a random pattern of circles). Three more conditions were selected to reflect different degrees of available linguistic information (‘reading’ conditions, i.e., text grids, scrambled text, and newspaper articles). After removing blinks from the data, gaze steps were computed by differencing the raw 2D-position data for all conditions. Subsequently, time series were subjected to recurrence quantification analysis (RQA). RQA quantifies various dynamic properties of a time series related to the degree of randomness and structure of their temporal evolution.

Results show that recurrence measures differentiate between ‘baseline’ conditions and ‘reading’ conditions. Furthermore, they are able to distinguish between different degrees of linguistic information within the ‘reading’ conditions. These findings suggest that eye movement fluctuations during text reading differ systematically in the strength and degree of temporal structure compared to ‘baseline’ conditions that putatively capture endogenous fluctuations of eye movements in the absence of (linguistic) information. Moreover, they show how qualitatively different tasks (such as staring on a fixed location and reading text) can be meaningfully measured on a continuum of temporal structure. Overall, these findings provide a new and important perspective for further studies investigating natural reading as complex, dynamical process.

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Air Quotes in Media Discourse - A Usage-Based Study

Peter Uhrig

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02 March
15:45–16:10
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Air quotes are a comparably understudied phenomenon in linguistic research. While not uncommon, they are rare enough that finding them is difficult due to their low number in fully-annotated multimodal corpora. They do not habitually enter into crossmodal collocations (Uhrig in prep.) with specific constructions and are thus hard to identify in transcribed multimodal corpora.

In this presentation, I will present a new approach for the identification of air quotes in raw data using computer vision methodology such as OpenPose (Wei et al. 2016, Simon et al. 2017, Cao et al. 2018), its merits and its drawbacks.

After that, I will briefly discuss the formal characteristics of air quotes and how to analyse them in terms of gesture classification schemes such as the one by McNeill (1992), making use of previous treatments of the phenomenon (e.g. Stivers/Sidnell 2005, Lampert 2015, Cirillo 2019).

Finally, I will present the results of a pilot study of air quotes taken from the NewsScape English Corpus (see Uhrig 2018 for details on the corpus) with regard to their semantic/pragmatic functions and - with a small quantitative component - the distribution of these functions. A brief discussion of competing constructions and the relation to the function of quotes in written communication will conclude the presentation.

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Constructional families in the laboratory: Novel experimental approaches to the study of constructional relations

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Thursday,
03 March
11:30–11:55

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Cognitive linguists assume that speakers' grammatical knowledge is organised as a network of constructions that share varying degrees of similarity with each other. Different experimental methods have been used to investigate similarity relations between clause-level constructions, including sentence processing and artificial language learning techniques (see Diessel 2019 for an overview). These approaches have, however, typically targeted a small set of constructions, for example the double-object and *to*-dative alternation or the family of relative clauses.

This paper proposes two ways in which existing methodologies can be complemented to study network relations among a wider range of constructions. The first involves an extension of structural priming: while previous studies have focused on alternating constructions, comprehension methods can be used to investigate priming between non-alternating constructions. This is illustrated with recent experiments that employ a variant of self-paced reading to test priming between the English caused-motion and resultative construction (Ungerer 2021) and between the resultative and object-oriented depictive construction. It is shown that speed-ups and slow-downs in participants' response times are informative about the degree of similarity between the constructions.

A second idea is to use network science tools, which have been previously applied to speakers' lexical networks (e.g., Borodkin et al. 2016), to analyse similarity relations among the items that occur in the open slots of constructions. For example, corpus data could be combined with the results of free association tasks (see Ellis, Römer & O'Donnell 2016) to determine how many verbs are shared by a set of related constructions. Data from different populations, such as L1 and L2 speakers of the same language, could be compared to assess whether their constructional networks are similar or different.

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Systematicity and iconicity in English count and mass nouns: Phonological correlates of bounded construals

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Wednesday,
02 March
16:15–16:40

Grammatical categories are not only distinguished by their morphosyntactic properties, but also by recurrent form-meaning pairings, otherwise known as “systematicity”. For example, English verbs as opposed to nouns are more likely to be shorter and have secondary stress (Kelly, 1992). Native speakers (Farmer et al., 2006) and children (Monaghan et al., 2011) are sensitive to this information in processing and acquisition.

This paper presents a previously undocumented pattern of systematicity in the English vocabulary. Phonological transcriptions of 6,492 nouns from the Bochum English Countability lexicon (Kiss et al., 2016) were analyzed, yielding the following generalizations:

- (i) mass nouns are more likely to be multimorphemic (morphological data from the English Lexicon Project)
- (ii) mass nouns are on average longer, even when controlling for morphological complexity and word frequency
- (iii) mass nouns are more likely to end in continuants (fricatives, vowels, liquids) as opposed to occlusives (stops and affricates)

Each of these findings is small to medium in effect size (Cohen’s $d = 0.2-0.6$), but highly reliable (all posterior probabilities of reverse sign < 0.003). These results appear to the view expressed in cognitive grammar that mass nouns involve an unbounded construal (Langacker, 2008). It is known that onomatopoeias for prolonged sounds end in fricatives (e.g., ‘fizz’, ‘hiss’, ‘puff’, ‘slosh’) and conversely, onomatopoeias for abrupt sounds end in stops. Thus, I tentatively propose that the abruptness of stop-final count nouns maps onto the bounded construals these words involve. I will discuss how these results fit into existing theories of iconicity and cognitive grammar.

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Metaphor and onomatopoeia in the language of bird song

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03 March
15:45–16:10

Auditory sensations have been argued to be ineffable, that is, hard to put into words (Wallmark, 2019; Wright, 1971). However, investigations of auditory language have so far exclusively focused on musical discourse (Pérez-Sobrino & Julich, 2014; Wallmark, 2019). Here, we present a detailed corpus-based analysis of 18 English-speaking field guides containing descriptions of bird vocalizations such as the following: “Calls include a flutey *tiu-tee* and a vibrant *wee-tchuk-tchuk*, the latter notes like 2 stones being knocked together.”

This example highlights how this discourse uses a rich array of semiotic strategies to communicate sound properties, including comparisons (*like two stones...*), adjectival descriptors (*flutey*, *vibrant*), and onomatopoeia (*tiu-tee*, *wee-tchuk-tchuk*). We transcribed a total of 6,946 such descriptions for 2,778 bird species. Analyses reveal that onomatopoeia is dominant in this discourse (68% of all entries), much more frequently than what has been reported for musical discourse (Wallmark, 2019). In contrast, comparisons (to other birds, other animals, and objects) were very rare, characterizing only 15% of all entries. To analyze synesthetic metaphors, we used Lynott and Connell’s (2009) sensory modality ratings. 26% of the touch words (‘rough’, ‘smooth’) of their dataset were used in our bird corpus, on par with the use of genuine sound words such as ‘loud’ and ‘quiet’ (22%). This confirms the observation that touch is a frequent source domain in synesthetic metaphor (Winter, 2019). The prevalence of synesthetic metaphor moreover differs from musical discourse, where spatial metaphors are comparatively more frequent (Pérez-Sobrino & Julich, 2014). Our results demonstrate how metaphor and onomatopoeia can overcome the limitations of the small vocabulary of abstract auditory descriptors. Our analysis also allows us to characterize what sort of auditory object bird song is vis-à-vis musical instrument sounds.

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Normativity management in discourse: Polish reflexive pronoun "sobie/se"

Piotr Wyroślak

Wednesday,
02 March
12:00–12:25

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The aim of the present study is to explore the potential of the dative reflexive pronoun *sobie/se* to be used as a normativity management device.

- (1) (*mam takie fajne łyżwy*) *kupiłam* *sobie* *dwa* *lata* *temu*
buy.PST.F.1SG REFL.DAT two.NOM year.NOM.PL ago
(I have such nice ice skates) I bought them for myself two years ago' (SPOKES)

- (2) (*kiedyś tam mówię* *tak* *sobie* *wejdę* *z* *ciekawości* *popatrzeć*
weszłam)
(I went say.NPST.1SG so REFL.DAT enter.NPST.1SG out curiosity look_a_bit.INF
there once)
'I went inside [this expensive shop] the other day. I said "I'll just go in and look around"' (SPOKES)

The dative reflexive pronoun fulfils a broad range of functions (cf., e.g. Dąbrowska 1997, Rudzka-Ostyn 2000, Szupryczyńska 1992) – including predictable uses, such as recipient-beneficiary expression, exemplified in (1). However, of particular interest to the present study are the 'ethical' uses of *sobie/se*, as illustrated in (2), impossible accounted for in these terms.

The dative reflexive pronoun will be argued to construe the event as expected and conforming to a norm of certain kind. The hypothesis is illustrated by the context of (2), where the speaker makes an attempt to present her behaviour (entering a shop she would not be expected to visit) as something ordinary and unsurprising.

The study uses data from SPOKES corpus of conversational Polish (Pęzik 2015). Together with qualitative analyses, two quantitative analyses will be presented – a collocational analysis and a profile-based study (cf. e.g. Glynn & Robinson 2014). Collocational analysis focuses on the association strength between *sobie/se* and selected normativity-related markers (including *po prostu* 'just', *normalnie* 'normally'). Second sub-study involves over 200 usage instances of the verb *siedzieć* 'sit' with and without *se/sobie*, annotated for a set of semantic and pragmatic features, analysed using Multiple Correspondence Analysis. The results demonstrate the utility of normativity management as a descriptive device for the semantics of *sobie/se*.

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KONTAKT konkret, KONTAKT abstrakt: Verbale Argumentstrukturmuster mit PP-an

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04 March
12:00–12:25

In den vergangenen Jahren hat sich ein breiter Konsens etabliert, dass eine angemessene Theorie und Beschreibung von Argumentstruktur Elemente sowohl valenzieller als auch konstruktionistischer Betrachtungsweisen miteinander zu verbinden habe (Boas 2010, Herbst 2014, Welke 2019 sowie die Beiträge in Külpmann/Symaczyk Joppe/Neuhaus 2020). Auch für eine gut dokumentierte Sprache wie das Deutsche sind allerdings bislang noch kaum Beschreibungen verfügbar, die einen größeren Sprachausschnitt datengestützt, systematisch und exhaustiv im Sinne dieser Forderung modellieren. Unser Vortrag berichtet aus dem IDS-Projekt *Syntagmatik im Lexikon*, in dem eine solche Beschreibung für präpositionale Verb-Argumentstrukturen mit den zehn häufigsten deutschen Präpositionen mit spatialer Quellbedeutung erarbeitet wird. Ziel des Projekts ist die Erstellung eines digitalen Konstruktikons, das als musterbasiertes Gegenstück zu traditionellen Valenzlexika genutzt werden kann (Zeschel & Proost 2019). Unser Vortrag konzentriert sich auf präpositionale Argumentstrukturmuster mit *an*, von denen einige in (1)–(3) in jeweils unterschiedlichen Realisierungen illustriert sind:

(1) jmd denkt an etw / jmd entsinnt sich an etw / jmd erinnert jmdn an etw

(2) es mangelt an etw / jmdm fehlt es an etw / bei jmdm hapert es an etw

(3) etw lässt sich an etw ablesen / etw ist an etw zu erkennen / etw wird an etw festgemacht

Der Vortrag zeigt anhand exemplarischer Analysen, wie valenztheoretische und konstruktionsgrammatische Elemente in der vorgeschlagenen Beschreibung ineinandergreifen. Strukturell ermöglicht die gewählte Darstellung eine integrierte Behandlung argumentstruktureller Mustervarianten mit unterschiedlicher Partizipantenanzahl (z.B. aufgrund von Kausativierung) und Prädikatsdiathese (Aktiv, Passiv und weitere Konversen). Semantisch erlaubt das Format einerseits eine feingliedrige Differenzierung der angetroffenen Bedeutungsgruppen in disjunkte Muster, andererseits jedoch auch eine schematische Integration des gesamten Feldes verbaler Muster mit PP-*an* in ein verbundenes Netzwerk rund um die spatiale Quellbedeutung KONTAKT.

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Dativus-ethicus-Constructions (DeCs) and the Neglected Role of Prosody in Linguistic Constructions

Bin Zhang

Wednesday,
02 March
17:15–17:40

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There is a considerable amount of literature on free datives in many Indo-European languages (e.g. Abraham 1971, Mollica 2014, Osthus 2007). The Dativus-ethicus-Construction (DeC), pertaining to one fascinating subcategory of free datives, is an ancient linguistic device that reveals the embedded communicative simultaneousness, explicit interpersonal relations, and involved emotions. This paper is concerned with Chinese DeCs and their peculiar prosodic and grammatical behaviors from a usage-based perspective. I argue that the Chinese DeCs are best described in terms of a combination of their prosodic, semantic, structural, and pragmatic dimensions.

(1) nǐ gěi wǒ gǔn
 [ni²¹⁴] [kei²¹⁴] [wo²¹⁴] [kə²¹⁴]
 you give me get away
 Fuck off!

(2) nǐ gěi wǒ bào xiāo
 [ni²¹⁴] [kei²¹⁴] [wo²¹⁴] [pau⁵¹] [ɕiau⁵⁵]
 you give me report spend
 Refund this for me!

The exclamative sentences above show two prototypical options in Chinese DeCs. The shared syntactic construction (*nǐ gěi wǒ*) leads the whole sentence. The auxiliary verb *gěi* (give) and the full verbs build together serial verb constructions. Meanwhile, the full verbs from the two examples demonstrate a significant discrepancy regarding the number of syllables (monosyllabic vs. disyllabic). All the 1717 DeCs with the structure [*nǐ gěi wǒ*] + [X] from the CCL-Corpus are firstly analyzed based on their prosodic, structural, and semantic features. Secondly, the pragmatic functions and related social-linguistic parameters are investigated. Finally, I specifically examined how the prosodic characters license or constrain the programming of potential emotions in the DeCs.

After a careful analysis, the most remarkable issue I found is that a DeC with a monosyllabic full verb has more strong emotional potentials (e.g. anger, surprise, hate) than a Dec with a disyllable one. The analysis strives to show that there is a strong correlation among the prosodic features, the DeCs, and their embedded emotions. Hence, this research proves that the prosodic aspects of linguistic constructions should also be included in a broader construction definition.

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Lexical vs. constructional licensing: German adversative sentences and construction-internal relations

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Wednesday,
02 March
10:30–10:55

It is controversial whether the licensing of a sentence must be traced back to abstract grammatical constructions (Goldberg 1995, 2006) or to lexically specified, lower-level generalizations (Boas 2003; Iwata 2008). By investigating German adversative sentences using frame-semantic data from FrameNet (Ruppenhofer et al. 2016), we argue that these are not distinct mechanisms of different types of constructions, but can be equally involved in the same construction.

An *Adversative* construction consists of two construction elements (CEs): Situation, denoting a first proposition, and Contrast, denoting a second proposition semantically contrasted to the first.

1. [_{Situation} Hatten in die Länge gezogene Kirchen das Mystisch-Geheimnisvolle in der Messfeier betont], [_{Contrast} deuten die Rundbauten den Gottesdienst als einen Akt der Gemeinschaft].
‘Whereas elongated churches had emphasized the mystical and mysterious in the mass, the round buildings interpret the service as an act of communion.’

In (1), the contrast is lexically motivated. Both the phrase *in die Länge gezogen* (‘elongated’) and the modifier *rund* (‘round’) evoke the Dimension frame. Therefore, an abstract *Adversative* construction enhances the contrast by evoking the Concessive frame, but is not entirely responsible for it.

In other cases, adversative juxtapositions like (2) are not lexically motivated; it is the construction *Adversative* construction itself that triggers the Concessive frame.

2. [_{Situation} Lief die offizielle Hilfe schon in den beiden grossen Städten unsäglich langsam, ja chaotisch an], [_{Contrast} so wurde den Menschen auf dem Land die nötige Hilfe noch viel weniger zuteil].
‘While the official aid was already starting at an unspeakably slow, even chaotic pace in the two big cities, the people in the countryside received even less help.’

Here, both propositions are lacking antonymic words or multi-word expressions. The CEs relate to two frame elements (FEs) of the Concessive frame: Situation corresponds to the FE *Main_assertion*, while Contrast matches the FE *Conceded_state_of_affairs*. It is the frame that motivates the contrast between the propositions by virtue of a construction.

Both lexical and constructional licensing are similar in that they constitute a construction-internal relation between the CEs. However, only in the case of (1) this relation can be predicted on a lexical basis.

This raises a number of issues: (i) What constrains the instantiation of the construction? (ii) To what extent do lexical and constructional meaning interact? (iii) How are those meanings related? We take answers to these questions as a starting point for further research on the relationship between constructions and frames.

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