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Plenary Session

Daniel Casasanto

University of Chicago

The Hands of Time: Dissociations between temporal language and temporal thinking

Do people think about time the same way they talk about it? Not always: maybe not even the majority of the time. In this talk, I will explore some systematic dissociations between temporal language and temporal thinking in speakers of English, Dutch, and Darija, a Moroccan dialect of Modern Arabic. Analyses of spoken space-time metaphors reveal a fundamental fact of our temporal thinking: It depends, in part, on spatial mappings. Yet, essential features of these mappings, including their orientation and direction, may be absent from language. Both the linguistic metaphors that we use and our interactions with the physical environment can influence our implicit mental metaphors for time, in some cases. Yet, non-linguistic cultural practices – and even abstract of cultural values – can also shape our mental representations of time, and can lead to striking incongruities between temporal language and thought.

Alan Cienki

Vrije Universiteit Amsterdam and Moscow State Linguistic University

The variable fixedness of symbolic structures in talk as seen through the lens of the dynamic scope of relevant behaviors

In cognitive linguistics, the idea that category boundaries may be fuzzy and dynamic is widely accepted. In Cognitive Grammar, for example, lexical and grammatical structures are considered to form a continuum, with symbolic units becoming entrenched to varying degrees as they are abstracted from communicative “usage events” (Langacker 1988). What does this mean in practice, from the point of view of face to face communication? We will consider the notion of the scope of relevant behaviors (SRB) (Cienki 2010, 2012) as a means of theorizing about the forms of expression that communicators (and those attending to them) are potentially including for consideration (consciously or not) as symbols of certain meanings or functions in real-time talk. Spoken linguistic, gestural, and composite symbolic units fall along a continuum of being more or less fixed structures, and their place on that continuum (particularly that of gestures) varies along multiple time scales. Repetitions of various types in talk will provide the material for demonstrating some of the dynamics of the SRB – how it can expand, contract, or shift focus. In addition to considering talk based on

spoken language, some attention will also be given to sign languages and how this approach can help handle the challenge of analyzing gesture in, and gestural qualities of, signing. On the whole, looking at spoken language, signed language, and gesture more broadly as utterance-dedicated audible and/or visible bodily action (to adapt Adam Kendon's terminology) helps us understand them in terms of the variably multimodal, complex dynamic systems that they constitute.

William Croft

University of New Mexico

Towards a model of force-dynamic construals in verbal semantics and event structure

In *Verbs: aspect and causal structure* (Croft 2012), I present a cognitive semantic analysis of the aspectual structure of events that relies on two fundamental ideas: the familiar cognitive linguistic idea of construal, and a decomposition of events into temporal-qualitative phases. In this talk I outline a similar analysis of the causal (force-dynamic) structure of events relying on the same two ideas, construal and decomposition, only suggested in *Verbs*. In *Verbs*, I argue that simple verbs on the whole construe events as causal chains (representable for example as nonbranching directed acyclic graphs) linking participants in terms of transmission of force (Talmy 1976, 1988; Croft 1991; see also DeLancey 1981, Langacker 1987). This analysis provides a general construal and decomposition model. Events that are branching, undirected (or bidirectional) and/or cyclic are construed as causal chains through a variety of argument structure constructions, by which I include constructions using special affixes or particles such as reciprocal or applicative, as well as specifying argument phrases and their case marking. The causal chain provides a force-dynamic decomposition of the construed event into segments relating pairs of adjacent participants on the causal chain (that is, those that are construed as directly interacting force-dynamically). However, there is reason to believe that in addition to the highly general force-dynamic construal of an event in terms of A acting on B acting on C (the causal chain), there are also more specific construals of the types of force-dynamic interactions between participants in an event. These construals are usually described as event types such as caused-motion, transfer, application, emission and so on. But these event types are no more inherent to a particular verbal semantic class than are the aspectual types traditionally assigned to verb classes. Instead, they represent force-dynamic construals of those events just as the aspectual construals do. If this is true, then in principle we should be able to analyze these force-dynamic construals decompositionally by identifying particular types of causal segments that make them up. This will almost certainly be a more complex system than that the system of aspectual construals of events proposed in *Verbs*, and will require further analysis of the qualitative dimension of event structure posited in that book.

Stefan Gries

University of California, Santa Barbara

Quantitative (corpus) methods in cognitive/usage-based linguistics: Some remarks on old and new(er) issues

Ever since its beginnings in the early 1980s, Cognitive Linguistics (CL) has undergone a variety of developments both on the methodological and theoretical side of things. Methodologically and just like much of the rest of linguistics, CL has become more quantitative/statistical and more corpus-linguistic; theoretically, it seems as if CL has been superseded by usage-/exemplar-based linguistics. While these developments have resulted in a huge influx of methods and ideas, these have also brought about their own controversies/difficulties (not to mention resistance) and discussions. In this talk, I will discuss several of these developments and controversies from my own very biased perspective. First, I will try to underscore the need for quantitative work, maybe even for the most qualitative kinds of research. Second, I will discuss recent 'discussions' of a very basic quantitative corpus-linguistic heuristic that many researchers have been using over the past 10-12 year (collostructional analysis) with an eye to highlight numerous misunderstandings and omissions in two recent critical studies as well as future directions in this domain. Third, I will discuss how CL moved from its first multifactorial studies of syntactic alternations (Gries 2000/2003) towards the contemporary 'standard' of mixed-effects modeling and showcase one example that hopefully highlights why that move is necessary; however, I will also refer to a few more recent developments that hold high promise in particular for current studies in CL and their usage-/exemplar-based perspective. Finally, based on Barnwell (2014), I want to end on a more theoretical note and discuss how current usage-/exemplar-based theory has probably become too powerful in how a variety of its tenets - each one seemingly reasonable and supported on its own - can, once they are combined, lead to overly powerful generalizations that are not supported in empirical study. Given the above, it is my hope that this talk will provide directions for both the methodological development, theoretical refinement, and empirical exploration of our field.

Adele Goldberg

Princeton University

Got constructions?

Language is at once impressively repetitive and impressively creative. This presentation brings together behavioral, neural, and theoretical evidence that combine to demonstrate that speakers retain a vast amount of item-specific linguistic knowledge while they also generalize over that knowledge. I will focus on several ways in which the functions of constructions play a key role in online processing, generalization, and representation.

Elena Semino

Lancaster University

Metaphor and framing in discourse

The idea that metaphors can 'frame' topics or experiences in particular ways provides a useful link between cognitively-oriented and discourse-oriented approaches to metaphor. This talk builds on extensive analyses of authentic metaphor use, primarily from health communication, in order to reflect on the 'framing' power of metaphor and how best to account for it. These analyses suggest that the notion of 'framing' needs to include agency, evaluations and emotional associations, and that expressions belonging to the same broad 'source domain' can provide quite different 'framings' for a particular experience. The more specific notion of 'scenario' is better suited to account for metaphor and framing, but consideration also needs to be given to the uses of individual linguistic expressions and to co-text and context. Overall, this raises issues for the generalizability of claims about metaphor in cognition and discourse. These are relevant not just for researchers, but also for practitioners, especially in areas where metaphors can be sensitive and controversial, such as healthcare.

General Session

Ahmed Abdel-Raheem

Lodz University

Messaging battles in the Eurozone crisis discourse: A critical cognitive study

We know from research in cognitive science that all thought is physical, with mostly unconscious mental structures characterized by neural circuitry in the brain. Fillmore has shown that frames are the most commonplace mental structures, and Lakoff has shown that a huge number of mental structures are metaphorical, mapping from one frame to another. All forms of communication, whether language, images, cartoons, or gestures work via the activation of such frames. The more a mental structure is activated, the stronger the neural circuitry that comprises it will become. World-views are long-term systems of conceptual frames and metaphors in the brain. People can only make sense of ideas that fit their fixed systems of frames and metaphors. Many people have access to more than one world-view. If one is activated more than another, the one most activated will become increasing strong and the others increasing weak. The use of language and cartoons in the media can have a strong effect on which world-view will be strengthened in the brains of members of the public. The author analyses a corpus of 1000 op-eds employing political cartoons and pertaining to the ongoing Eurozone crisis (2010-), and finds that the English-language media is attempting to undermine the euro and to foment the crisis. More specifically, the US and UK discourses on the crisis are a panorama of metaphors, categorizations, and blendings. These are normal in discussions of any important topic, but here are one-sided. Such communicative devices have the effect of moving the understanding of the public in an anti-euro direction.

Marina Agienko

Plekhanov Russian University of Economics

Hem Chandra Pande

Jawaharlal Nehru University

Cognitive linguistics insights into youth slang

In the youth slang we can find not only reflection but also interpretation of the culture of the people. The slang shows how the young generation perceives the present-day reality and what kind of problems it confronts in daily life. Cognitive insights into Russian youth slang showed that some slang metaphors seem symptomatic and can be explicit expressions of some psychological problems. The problem of maintenance of independence of thought is actualized through the metaphors of 'handmade', technical and chemical methods of influencing the process of thinking ('kapat` na

mozgi', literally "drop on the brain", 'kompostirovat` mozgi', literally "punch the brain", 'vzriv mozga', literally "explosion of brain" (in the meaning of 'exasperate'). The problem of aloofness is verbalized by the modus 'kak bi' (approximately "as if"), used concerning very definite situations as being 'provisionally true' like (literally translated) 'the cupboard was as if closed' or conditionally true ('oni zdes` kak bi rabotaiut', "they as if work here"). Also we found language evidence of 'Accelerated Thinking Syndrome' that is expressed with using words with the seme 'speeding-up' ('gnat', "speed along" ('not thinking properly') and suffering from stress with traces of the pressure of external factors ('menia eto pressuet', literally "it presses me"). The research done shows that in slang 'mozg', "brain" is 'unhealthy' organ which can be easily influenced externally and students have subconscious desire to keep aside any information that is not sufficiently oriented towards development of personality, does not have positive connotations, inhibits feeling of internal freedom or is not in consonance with tempo of its assimilation. Results of the research done by us can serve as recommendations which can be chosen according to the psychological state of the learners that can help teachers enhance the effectiveness of presenting the information to be learnt.

Reem Alkhamash

Queen Mary University of London

Contextualizing 1990s Saudi women driving demonstration via metaphor: A critical cognitive study

According to cognitive approaches to metaphor, metaphor is seen as facilitating understanding by structuring abstract domains in terms of concrete domains (Lakoff and Johnson, 1980). Also, metaphor can be seen as a discursive strategy whereby it might serve ideological roles (Charteris-Black, 2004, Koller, 2004, Musolff, 2004 and Rash, 2006). Both views of metaphor will be deployed in my analysis in which I will argue that activists in the 1990s structured their experience of driving for the first time by relying on metaphor as a cognitive resource. In order to contextualize the first women's demonstration, my purpose is to show (a) to what extent metaphors have been used by those activists in conceptualization of the following; themselves (before and after driving demonstration), society, the act of women driving and the aftermath that affects activists personally and (b) to draw on critical metaphor analysis (Charteris-Black, 2004) in order to explain metaphors identified. My data is based on an autobiography that has been recently published in Arabic by two of the activists; Aiysha Almane and Hessah Alsheikh, specifically my corpus focuses on the last section of the book which consists of accounts of five activists who participated in the demonstration telling their view of events. The small corpus which consists of 10,780 tokens contains 164 metaphorical expressions. In the conceptualization of themselves, activists drew on source domains such as CLEANSING, CAPTIVITY, MOVEMENT, BARRIER, while conceptualization of society contains source domains such as MACHINE, SICK PERSON, and conceptualization of women driving and aftermath source domains such as FORCE and PHYSICAL ACTIONS.

Ben Ambridge

University of Liverpool

Is the English passive a semantic construction prototype? Evidence from comprehension and judgment data with children and adults

Cognitive linguistic approaches to language acquisition generally assume that constructions are associated with particular meanings (e.g., Goldberg, 1995; c.f., Müller & Wechsler, 2013); for example, the English passive has the prototype semantics “PATIENT is in a state or circumstance characterized by AGENT having acted upon it” (Pinker, 1989). We test a prediction that follows from this claim: children will show a cline from best passive comprehension - and greatest passivizability in a grammaticality-judgment task - from verbs that are most consistent with these semantics, to least, e.g.

(1) Bob was HIT by Wendy >

(2) Bob was FRIGHTENED by Wendy >

(3) Bob was SEEN by Wendy

To test this prediction, we obtained from 10 adults, ratings (on a 9-point scale) of the extent to which each of 72 verbs exhibits each of ten semantic properties designed to capture this notion of a semantic prototype (e.g., A is responsible; A enables the event; B is affected). Principle Components Analysis was used to reduce these ratings to a single “actionality” score, for use as the predictor variable in subsequent regression analyses; overall and passive-use verb frequency counts (from the British National Corpus) were included as control predictors. We assessed passive performance at three ages (5-6, 9-10, adult; N=36 at each age, for each study) using two different tasks (both included active sentences as a control): (a) a forced-choice video pointing task and (b) a graded grammaticality judgment task. Looking across verbs (using mixed effects regression models) the semantic actionality ratings predicted (a) the proportion of correct matches (comprehension task) and (b) the rated acceptability of passive sentences (judgment task) for all age groups. These findings are interpreted as constituting evidence for the claim that the English passive constitutes a semantic construction prototype.

Wendy Anderson

University of Glasgow

Ellen Bramwell

University of Glasgow

Metaphor, directionality and domains: A data-driven perspective

The ‘Mapping Metaphor with the Historical Thesaurus’ project, currently being undertaken at the University of Glasgow, is creating an interactive ‘Metaphor Map’ for English, which will show the

metaphorical connections between semantic domains made by speakers and writers of English from the Old English period to the present day. This data provides an excellent background from which to explore the long-standing questions of semantic domains and the directionality of metaphor, the focus of this paper. Our source data is the Historical Thesaurus of English (HT, published as Kay et al. 2009), itself based on the data of the second edition of the Oxford English Dictionary, and supplemented by A Thesaurus of Old English (Roberts and Kay 2000) for the earlier period. The complex hierarchical semantic structure of the HT has been adapted and simplified for Mapping Metaphor to produce 411 semantically coherent categories (e.g. 'Atmosphere, Weather', 'Ill-health', 'Memory', 'Politics', 'Faith'). The lexical content of each of these categories in turn is then compared automatically with the lexical content of every other category, to produce a database of lexical overlap between categories. Detailed manual analysis is then undertaken for each pair of categories, to identify the overlap which is a result of systematic metaphorical connections, and discard the significantly larger amount of overlap which is due to homonymy and to polysemy resulting from mechanisms other than metaphor. This methodology offers us a new perspective from which to clarify the nature of a semantic domain and a new, more comprehensive, framework within which to investigate examples of apparent bi-directionality of metaphorical connections between domains, such as that between the domains of 'Textiles' and 'Imagination' (cf. fustian and spin, with their sources in 'Textiles' and target in 'Imagination', and illusion which has its source in 'Imagination' and target in 'Textiles').

Mihailo Antović

University of Niš

Waging a war against oneself: A conceptual blending analysis of a metaphor from religious discourse

The concept of "struggle against ourselves" is ubiquitous in religious discourse. Among many other sources, one finds it in the Christian monastic textbook "Unseen Warfare", which provides advice for the spiritual advancement of believers, claiming that the path of good life consists in rigorous renunciation of worldly desires, thoughts and actions, depicted throughout as a battle that the monk needs to wage against himself. In the present paper, I contribute to the long-established discussion of "WAR" metaphors by analyzing this construct. While authors often resort to CMT for explaining WAR metaphors (Romaine, 1996; Johnson, 2005; Coe & Winter, 2013), I stress some advantages of the Conceptual Blending Theory. In the "struggle against oneself", rather than mapping from a preexisting source to target, the metaphorization allocates the same person to both input spaces. This requires notions such as identity connection (Fauconnier, 1997) and decompression of the network (Fauconnier & Turner, 2002), which come prior to the actual mapping process. Once it starts, the mapping is parsimonious: it selects only salient elements from both inputs, in this case moral dispositions of the believer, conveniently representable as Eight Major Virtues and Sins. There is a total of 256 possible mappings between these elements, which can have two valences (analogical or disanalogical), and differ in intensity. Thus, two vices, e.g. "gluttony" and "sorrow", create an analogical connection of medium strength, while two moral opposites, e.g. "wrath" and "meekness", create a strong disanalogical link. Assuming the valence is different, the

more the intensity, the stronger the force dynamic effect between the agonist and antagonist, and the clearer the notion of fictive interaction (Pascual, 2008), from which the metaphor of “struggle” emerges in the blend. I illustrate details of the analysis with excerpts from *Unseen Warfare*, suggesting points of possible cooperation between theology and cognitive linguistics.

Ifigeneia Athanasiadou

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Panos Athanasopoulos

University of Reading

Plural mass nouns and the construal of individuation in first language acquisition: Cross-linguistic evidence from verbal and nonverbal behaviour in linguistic and non-linguistic contexts

Radden and Dirven (2007), among others, have claimed that the ontological distinction between objects and substances can be reflected in the grammatical distinction between count and mass nouns. Athanasopoulos (2008) has argued that even though the count/mass noun distinction is observed in both Greek and English, mass nouns in Greek, contrary to English, can flexibly be pluralised. In the present study, the effects of grammatical structure on non-linguistic cognition are examined. English and Greek three- and four-year-olds completed a verbal as well as a nonverbal task. In the verbal task, plural marking on familiar count and mass nouns from the domain of food was assessed across informative and neutral syntactic contexts or non-linguistic contexts. Greek children, in both age groups, when compared to English children, pluralised mass nouns more in a non-linguistic context. In the nonverbal task, categorisations by shape or material were examined for novel objects and substances from the toy domain across informative and neutral syntactic contexts or non-linguistic contexts. Greek three-year-olds distinguished objects from substances, not only in linguistic contexts, as English children did, but in non-linguistic contexts as well. These results reveal that: a) Syntactic cues enhance ontological categorical distinctions developmentally in both Greek- and English-speaking children; and b) Greek-speaking children apply plural marking to a greater extent than English-speaking children even in mass noun contexts, and this has consequences for the non-linguistic construal of individuation. Such effects have not been found before and have implications for theories on the interaction between language and thought (Whorf 1956; Lucy 1997) and their developmental dimensions (Slobin 1996; Levinson 2001).

Samuel Atintono

University of Education, Winneba

Verbs of elevation in Gureñ locative constructions: A cross-linguistic perspective

The paper employs stimuli and elicited data to discuss the semantics of six positional verbs of elevation in Gureñ (Gur, Niger-Congo) in the context of recent cross-linguistic studies on posture, positional and locative verbs. It is shown in this study that the crucial meaning component of the verbs is the location of the Figure on an elevated Ground for which other languages will typically use adpositions to describe. The use of the verbs of elevation in Gureñ locative construction is obligatory and the verbs constitute the main linguistic means that the speakers use for locative descriptions. The choice of any one of these verbs by a speaker to describe an elevated location is in turn dependent on the semantic properties of the Figure. This includes whether or not the Figure has a stable or unstable base support or is in an unstable relation to the Ground and also depends on the shape, flexible or rigid nature of the Figure's body, and the nature of the spatial relation (e.g., Figure on upper surface of Ground or hook support). One interesting semantic characteristic associated with the Gureñ verbs of elevation which has not been reported in the typological literature on positional and locative verbs is that their use to describe Figures on elevated Grounds disregards the actual postures of the Figures. Thus, if a speaker observes a Figure on the ground (earth or floor level) the actual posture verb is used, but if the Figure is on an elevated Ground (e.g., a tabletop) the actual posture is disregarded. Perceptivization appears to also influence the speaker's choice of verb and this is discussed in the paper.

Rafał Augustyn

Maria Curie-Skłodowska University

Re-conceptualising SF worlds in translation: On two types of blending while rendering neologisms

In Cognitive Linguistics lexical items are held to be representations of cognitive categories based on human experience of the world and are stored in human mind as mental concepts, while meaning is constructed through our interaction with the external world and is equated with conceptualisation (cf. Langacker 2008). Viewed from this perspective, neologisms that are based on concepts that are rather weakly entrenched in mental lexicon of average speakers, but are frequently used by hard science-fiction authors (e.g. Greg Egan, Stephen Baxter, Alastair Reynolds, Jacek Dukaj) in order to evoke in readers a genuine sense of technological or psychological otherworldliness which still seems tangible, pose a considerable intellectual challenge for the readers. It also requires a lot of mental effort on the part of the translators of texts featuring such neologisms, whose re-conceptualisation of the source text in their translation influences the subsequent re-conceptualisation of the target text by translation recipients. At the same time, the conceptualisations in both the source and the target text should be equivalent for the translation to

be recognised as successful (cf. Lewandowska-Tomaszczyk 2010, Rojo & Ibarretxe-Antuñano 2013). In particular, the paper claims that one cannot satisfactorily account for the establishment of equivalence of the conceptualisations referred to above unless Fauconnier & Turner's (2002) conceptual blending, a fundamental cognitive mechanism playing a crucial role in structuring of conceptual knowledge and inferential processes, as well as communicative relevance (Wilson & Sperber 2012) and discourse context, as discussed in Brandt's (2013) revised model of conceptual blending, are incorporated into the analysis of neologism translation at both the formal and conceptual level. We will also demonstrate that achieving full equivalence in the translation of neologisms on the conceptual level does not always guarantee the overall success of a given translation, as striving for formal-aesthetic equivalence is equally important.

Adriana Alexandra Baltaretu

Tilburg Center for Cognition and Communication (TiCC)

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Power metaphor as size difference

For conceptualizing power we often employ metaphors that tap into our spatial perception. Powerful people are considered to be up in the hierarchy and have control over people with low status. Moreover, big / colossal / massive animals are powerful, while small / little / tiny creatures are weak. "Physical size typically correlates with physical strength, and the victor in a fight is typically on top" (Lakoff and Johnson, 1980, p. 15). Thus, power can be represented both as a vertical (Shubert, 2005) and as a size difference (Schubert, Waldzus, & Giessner, 2009). However, a direct comparison of these two representations has not been undertaken. In a perception experiment, we tested whether being powerful is associated stronger with position in space or with size. The materials consisted of 24 sentences expressing power or equality relations. Each sentence had an agent and a patient (a blue and a green circle), whose roles had been counterbalanced (resulting in 48 sentences per subject). Under each sentence a sequence of eight pictures was displayed. The pictures depicted 6 possible combinations of size (big / small circles) and verticality (circles aligned horizontally or vertically), and two combinations of equally small circles vertically aligned. 40 participants answered which one of eight pictures best represented the sentence. The results are in line with previous finding that mental representations of power are not only associated with vertical differences, but also with size cues. Our study, however, also shows that power relations are associated stronger with size differences than with vertical differences.

Shala Barczewska

Uniwersytet Jana Kochanowskiego w Kielcach

Anecdotal construal in news articles

It is not uncommon for journalists to present an anecdote or scenic description in the opening paragraphs of their articles. This is often presented to writing students as a way of getting the reader's attention while introducing the main points of the article. A Cognitive Linguistics approach to construal would suggest that these images not only introduce the main points of the article, but also the perspective on the issue which the writer intends for his/her reader to adopt. To demonstrate this point, the study analyzes some of the construal operations used in opening paragraphs of news articles and their role in structuring a particular perspective on the story they are covering. While it mentions elements of specificity, foregrounding as understood by Langacker (1993) and the Conceptual Metaphor Theory of Lakoff (1980), its primary contribution is in its analysis differing applications of FORCE, MOTION, and ACTION schemas. In this, it builds off Hart's research into UK reporting of political protests (2013, forthcoming), but goes one step further in that it looks at the schematic structure of these opening paragraphs provided by their visual descriptions and how these prepare the reader to accept the journalist's stance. In doing so it unpacks the blending processes at work in moving the reader from a more basic use of image schemas to more abstract applications at the social and conceptual level via analogy and blending.

Michael Barlow

University of Auckland

Vaclav Brezina

Lancaster University

Gender differences in the structure of utterances

In this paper we undertake a usage-based study to examine gender differences in the use of elements such as pronouns and articles, but rather than focus on gross differences in frequency of usage, we examine differences in the positioning of these elements within an utterance. The study is based on spoken texts contained in a subset of the BNC, referred to as BNC 64 (1.5 million words). The utterances are examined with respect to the occurrence of particular words or categories in first word position, second position etc. In particular, we examine, for example, the occurrence of "I" in the following positions: first, second, third, fourth, mid, prepenultimate, penultimate, and utterance-final. The frequencies are normalised to give the number of occurrences per 1000 utterances. We obtain the following results for "I":

Position	1	2	3	4	Mid	-3	-2	-1	0
Male	123	80	46	35	34	21	14	12	8
Female	140	92	45	38	38	22	14	12	7

We see that the bulk of the difference in gender use comes in initial positions and that for the later part of the utterance the usage of male and female speakers is remarkably similar. In contrast, if we examine the definite article “the”, we find the following distribution. The usage by male speakers exceeds that of female speakers, with the increased usage found throughout the utterances.

Position	1	2	3	4	Mid	-3	-2	-1	0
Male	17	21	29	30	36	34	40	58	2
Female	10	15	21	23	31	26	35	57	1

While we would want to look at individual usage and not only the amalgamated data from the corpus, we believe that this approach offers new insights into patterns of usage and gender differences and leads to an increased understanding of usage-based models of language.

Natalia Beliaeva

Victoria University of Wellington

Can you find an academic in an acatramp? Differences in processing lexical blends and clipping compounds

How likely it is that you will guess that a 'negatude' is a 'negative attitude'? Is it more difficult to guess that 'finlit' means 'financial literacy'? The first example is a lexical blend, the second is a clipping compound, and the factors which differentiate them have caused a lot of argument in morphological studies. Various approaches to defining blends are based on purely formal grounds, and many resulting classifications make boundaries between these morphological categories more blurred. In a cognitive-based study, Gries (2006, 2012) bases the distinction between blends and clipping compounds on the relative position of the switch point (i. e. the point where transition between two source words of the blend takes place) and the ‘uniqueness point’ responsible for recognisability of the source words. This research goes further by providing experimental evidence that blends and clipping compounds are processed differently. With an assumption that lexical blending is an instance of conceptual integration in the sense of Taylor (2012), this study aims to demonstrate that conceptualisation of the meaning is different for different structural types of blends, and for clipping compounds. In a psycholinguistic experiment using the lexical data discussed in Author (to appear), an identifying and production task precedes the lexical decision task. The main hypothesis of the experiment is that blends with higher degree of formal transparency (e.g. predictionary ← prediction + dictionary) will better prime their source words in a lexical decision task than blends with lower degree of formal transparency (e.g. scoratorium ← score + moratorium) or clipping compounds (e.g. finlit). The results throw extra light on the findings of Lehrer and Veres (2010) using a revised methodology and more recent lexical data.

Christian Bentz

University of Cambridge

Douwe Kiela

University of Cambridge

Measuring and modelling lexical diversity across languages

We present a quantitative approach to measure and model the lexical diversity of languages cross-linguistically. Lexical diversity is defined as the breadth of word forms used to encode a constant information content. It is measured by means of comparing word frequency distributions for parallel translations of 363 languages. The measure is based on indices used in studies of biodiversity, i.e. Zipf-Mandelbrot's law and Shannon entropy. Zipf's law (Zipf, 1949) has been argued to differ systematically between texts and languages (Popescu et al., 2009) and to reflect language complexity (Baixeries, Elvevåg, & Ferrer-i-Cancho, 2013). In this study, Zipf's law is used as cross-linguistic, quantitative measure for the lexical diversity of languages. We estimated parameters of the Zipf-Mandelbrot law (Mandelbrot, 1953) for 363 parallel translations of the Universal Declaration of Human Rights (UDHR) using a maximum likelihood method. The ML estimation shows that parameters of the ZM law differ systematically according to the lexical diversities of languages. We present evidence that a) all 363 languages in our sample fall within a relatively narrow range of lexical diversity, b) languages of the same family cluster according to lexical diversity, but also c) languages with more non-native speakers (more language contact) have systematically reduced lexical diversities. Based on these quantitative findings, we argue that lexical diversity can be modelled by taking into account genealogical and sociolinguistic factors. This can help us understand how lexical encoding systems in natural languages evolve over time.

Bogusław Bierwiaczonek

University of Czestochowa

On metonymy in grammar: Conceptual and constructional metonymic motivation of constructions in English and Polish

It is argued that there are a number of constructions in English and Polish which are motivated by metonymy. The main difference between those constructions is that some of them are motivated by "ordinary" conceptual metonymy while others are motivated by less familiar "constructional" metonymy, whereby part of grammatical construction stands for the whole construction. Two examples of constructions motivated by conceptual metonymy are discussed: the conditional IF IT WEREN'T FOR X, CLAUSE and ONE MORE X AND CLAUSE constructions, illustrated by If it weren't for John I would be dead now and One more beer and I'm off. It is argued that in the first sentence John conceptually stands for the whole eventive argument, roughly WHAT JOHN DID, while in the second sentence one more beer, likewise stands for the whole proposition, roughly YOU DRINK ONE MORE BEER. Clearly, without those conceptual metonymies the constructions would be uninterpretable. The Polish equivalent of the English IF IT WEREN'T FOR X, CLAUSE construction is IF NOT X, CLAUSE

and is even more dependent on conceptual metonymy because it is reduced to a single negated nominal. The other two constructions are motivated by the fact that they are parts of larger constructions which license their grammar and some of the crucial aspects of their semantics. The constructions are the monoclausal IF ONLY construction and WHAT IF QUESTION construction and their Polish equivalents. It is argued that the properties of both these construction can only be explained in terms of the full biclausal conditionals which they activate, however weakly, through constructional metonymy. All the examples come from the BNC and the National Corpus of Contemporary Polish.

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On illocutionary constructions

If language can be described as a network of constructions of different levels of internal complexity and schematicity, one important category of constructions that must be part of such a description is what we shall call “illocutionary constructions”. Illocutionary constructions are defined as constructions with a relatively fixed conventional illocutionary force, e.g. the construction WOULD YOU MIND VPing, illustrated by *Would you mind passing me the salt please*, is an illocutionary construction with the conventional illocutionary force of POLITE REQUEST. We argue that in each category of speech acts usually distinguished in speech act theory, i.e. representatives, directives, commissives, expressives and declarations, has its own set of constructions having different specific illocutionary forces. In particular, we discuss the most common constructions representing directives with the illocutionary forces of REQUEST, ADVICE and WARNING, commissives with the illocutionary forces of OFFER and THREAT and a number of constructions representing different kinds of expressives. We suggest a simple formalism in which such constructions can be presented and discuss briefly its advantages for pragmatic contrastive studies in which different illocutionary constructions can be systematically compared, focusing on different lexical, grammatical and conceptual motivations for these constructions. We argue for instance that the English construction for SUGGESTIONS *Let’s VP* is motivated lexically by the (grammaticalized) verb *let* and the pronoun *us*, while in Polish the equivalent construction is motivated morphologically by the so-called 1person pl imperative suffix *–my*.

Liam Blything

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Kate Cain

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Temporal relations in sentence comprehension: Why young children sometimes fail to understand "before" and "after."

We conducted a developmental investigation of 3- to 7-year-olds' comprehension of complex sentences containing temporal connectives to identify the age at which children accurately use connectives to encode the relation between two clauses and reasons for failure to understand these processing signals. Children listened to two-clause sentences linked by a temporal connective, before or after, while viewing animations of the actions in each clause. After each sentence, they were asked to select the event that happened first to assess their understanding of the temporal order. We manipulated whether the presentation order matched the chronological order of events: 'He finished his homework, before he played in the garden' (chronological order) versus 'Before he played in the garden, he finished his homework' (reverse order), and whether the temporal relation between the two events was arbitrary (as above) or predictable from background knowledge: 'He brushed his teeth, before he went to sleep.' Accuracy and response times were recorded. Of most interest, we found a significant three-way interaction between age, order, and connective. Younger children were influenced by order: their performance was more accurate when the presentation order of the two clauses matched the chronological order of events. The older children were more accurate and quicker in general: performance was best for sentences that could most easily be processed on a word-by-word incremental basis. There were no effects of background knowledge: regardless of age, children performed comparably whether the relation between the two clauses was arbitrary or predictable. We conclude that by 7 years of age, children can reliably use the temporal connectives "before" and "after" to encode two-clause sequences but that, below this age, performance is limited by memory demands of the task. Implications will be discussed in terms of a cognitive explanation of children's developing connective competence.

Ryan Blything

University of Manchester

The roles of semantic fit and statistics in children's retreat from overgeneralizations of verbal un-prefixation: A production study

How do children produce novel utterances and constrain this productivity to avoid the production of ungrammatical sentences? For example, children must learn that some verbs can be used with un-prefixation (unwrap; unbutton) whereas others cannot (*unsqueeze; *unbend). A 'semantic' approach holds that verbs which take un- form a fuzzy "semantic cryptotype" of shared meanings (e.g. covering, enclosing, attachment; Whorf, 1956): grammaticality may be determined by the 'fit'

between a verb's semantics and this cryptotype. 'Statistical' approaches hold that a verb's grammaticality in un-form is determined by its frequency in other forms (e.g. squeeze/-s/-d/-ing; the 'entrenchment' hypothesis) or by the frequency of synonymous forms (e.g. release/*un-squeeze; the 'pre-emption' hypothesis). We used a priming methodology to examine younger children's (3-4; 5-6) restrictions on verbal un-prefixation. To elicit production of un-prefixed verbs, test trials were preceded by a prime sentence, which described reversal actions with grammatical un-prefixed verbs (e.g. Marge folded her arms and then she unfolded them). Children then completed target sentences by describing cartoon reversal actions corresponding to (potentially) un-prefixed verbs; half grammatical (e.g. unwrap), half ungrammatical (e.g. *unsqueeze). To test semantic fit, adult ratings of the extent to which 48 different verbs denoted Whorf's hypothesised 'cryptotype' were obtained from Li and MacWhinney (1996). Frequency counts of these verbs and their synonyms were obtained to examine entrenchment and pre-emption respectively. Mixed-effects regression models demonstrated that, for each age group, children's production-probability of un-prefixed verb forms was (i) positively related to the extent to which each verb is semantically consistent with Whorf's "semantic cryptotype," and (ii) negatively related to the frequency of a verb's bare form (e.g. squeeze/-s/-d/-ing), and the frequency of synonyms to its un-form (e.g. release/*un-squeeze). The study is the first to show graded effects of both verb semantics and verb frequency in children as young as 3-4.

James Brand

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Iconicity and arbitrariness in language learning: Does vocabulary size matter?

A defining feature of human language is the arbitrary relationship between a word's form and its meaning. These arbitrary mappings make up the majority of our adult vocabulary, whilst iconic mappings, where there is a systematic relationship, are relatively rare in comparison. Recent research looking at iconicity in language has shown that iconic mappings provide certain learning advantages, in comparison to learning arbitrary mappings. Then why is human language structured in a way that seems to favour arbitrariness in the vocabulary? A computational simulation by Gasser (2004) has shown that arbitrary mappings are better suited to a larger vocabulary size, whereas a smaller vocabulary is more advantageous for iconic representations. Here we present evidence from an experimental study to investigate the effect of vocabulary size on word learning in human participants, varying the phonological properties of nonsense words that related to rounded or angular shape stimuli. Results indicate that when iconicity is present in a small vocabulary size set, this assists in the learning of same-category shape distinctions, but less so with different-category distinctions. This contrasts with medium and large vocabulary sizes, where iconicity is only

advantageous for different-category distinctions and not for same-category distinctions. This research provides new insights on the important role of lexicon size and iconicity in language learning, acquisition and evolution.

Silke Brandt

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David Buttelmann

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Elena Lieven

University of Manchester

Michael Tomasello

Max Planck Institute for Evolutionary Anthropology

Contrasting first and third person perspectives in language and false belief

De Villiers (2007) suggests that the recursive structure of complement clauses supports children's understanding of False-Belief. In "he thinks it's raining", the main clause "he thinks" expresses a perspective on what is stated in the complement "it's raining", and this perspective differs from the speaker's own perspective. In the training studies that found correlations between children's understanding of complement clauses and False-Belief, the main clauses contained a 3SG subject, as in the example above (e.g., Hale & Tager-Flusberg, 2003). However, children frequently hear complements with 1SG subjects in the main clause (I believe it's raining) (Diessel, 2004). We investigated how children's interpretation of complement clauses with 1SG vs. 3SG subjects in the main clause correlates with False-Belief understanding. We tested 64 English-speaking children aged 3;5 and 4;5. They saw two boxes. Two hand puppets indicated which of the two contained a sticker and how sure they were about this (e.g., I/he know(s) it's in the red box vs. I/he think(s) it's in the blue box). In the 1SG condition the puppets spoke for themselves; in the 3SG condition the experimenter spoke for them. In a between-subjects design, each child received eight trials and then took part in four standard False-Belief tests. The 3-year-olds performed at chance in the 1SG and 3SG conditions and below chance in the False-Belief tests. The 4-year-olds performed above chance in both conditions and the False-Belief tests. However, only their performance in the 3SG condition, not the 1SG condition, correlated with their False-Belief understanding ($r=.651$; $p>.001$). This result was replicated with German-speaking children and it suggests that complement clauses with a 1SG subject in the main clause do not have the same meaning and/ or structure as complement clauses with a 3SG subject in the main clause. Only the latter support the ability to represent other minds.

Andy Buerki

Cardiff University

Motivation in recent and ongoing language change: It's not all in the system

Establishing motivations for instances of linguistic change is a delicate and complex matter and one on which it is particularly difficult to reach firm conclusions. While on the one hand there has therefore been considerable scepticism toward to possibility of convincingly accounting for motivation in language change (e.g. Lass 1980, Crowley 1992:202, Jones and Singh 2005:4), many treatments of historical linguistics have, on the other hand, made fairly sweeping statements regarding significant drivers of linguistics change. These have often been seen as mainly language-internal (or internal to complex systems more generally, e.g. Keller 1994), with a recognition of certain other factors as contributing or main motivators in limited domains. The present paper sought to make a modest contribution toward a re-assessment both of the possibility of establishing motivations for instances of linguistic change as well as general statements on the relative importance of different types of motivation, such as internal vs. external factors. To this end, motivations were investigated for a random sample of 150 instances of significant change in formulaic sequences (i.e. predominantly substantive constructions) in a corpus of 20 million words of written German across the 20th century. In establishing motivations, a functional conceptualisation of motivation was adopted (i.e. motivation understood as the need to which the observed linguistic change was the response) and applied. Results suggest that external motivators such as socio-cultural change as well as cognitive factors not of specifically linguistic nature play a more significant role in language change than has generally been recognised. Results further suggest that while establishing motivation to a sufficiently inter-subjective standard remains challenging, there are many cases where clear, satisfying and comprehensive accounts of motivation are possible and better quality data may well make further improvement possible.

Kate Cain

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Emma James

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Morphological awareness and reading comprehension development in English: How and why does the relationship change over time?

Morphological awareness refers to children's awareness of the morphemic structure of words and their ability to reflect on and manipulate that structure. Morphological awareness has a long period of acquisition with competence for different aspects evident at different points in childhood and adolescence (Ku & Anderson, 2003). Because of its critical role in word meaning, some have argued that morphological awareness is a key driver of reading comprehension growth (Kirby et al., 2012), However, previous research has typically used tasks with different processing demands to assess knowledge of inflectional and derivational morphology and has not always controlled for key

variables that might influence its relationship with reading comprehension, namely vocabulary and phonological processing skills, in addition to word reading (Kirby et al., 2012). We conducted a large-scale cross-sectional study of 450 6-, 9-, and 12-year-olds to determine the strength of the relation between different aspects of morphological awareness and reading comprehension. Word reading, vocabulary knowledge, phonological processing, and cognitive ability were also measured. We will report analyses to identify direct and indirect effects of morphological awareness on reading comprehension. Our analyses will address the following research questions: 1) Is there a direct relationship between morphological awareness and reading comprehension and does the strength of this relationship depend on age or task? 2) To what extent is the relationship between morphological awareness and reading comprehension mediated by their associations with word reading, vocabulary, and phonological processing? This work will add to our theoretical understanding of the relation between morphology and text comprehension across the period in which children become fluent readers.

Thea Cameron-Faulkner

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The role of hold-out gestures in language development

Many researchers suggest that certain speech acts and their associated constructions have their origins in the pre-linguistic development (e.g. Bates et al., 1975; Dore, 1974; Halliday, 1975, Tomasello, 1999). In the current study we integrate theoretical insights from Systemic Functional Linguistics (SFL) and Cognitive Linguistics in order to investigate the emergence and influence of pre-linguistic gestures on early language development. SFL has had a strong influence on cognitive approaches to language (Evans & Green 2006) and the current study aims to build upon this relationship. We focus on the use of hold-out gestures (i.e. the holding out of an object towards a co-participant) and their relationship to later emerging gestures (i.e. declarative pointing) and early lexical development. Hold-out gestures, which have yet to be systematically documented, can be viewed as instances of Halliday's interactional function and capture the child's desire to share experiences with others. The study (1) tracks the emergence of hold-out gestures, (2) identifies the types of maternal responses to hold-outs, and (3) investigates the relationship between hold-outs, proto-declarative pointing, and vocabulary development. Twenty four 10 month-old infants and their caregivers took part in half hour, monthly play sessions for three months. CDI self-report vocabulary checklists were also completed at three time points; after the first and last play sessions

and then three months after the completion of the recording period. Our findings to date show that hold-out behaviours were produced by all but two of the infants, and that hold-out frequency was related to subsequent proto-declarative pointing. (Analysis of the vocabulary measures and input is ongoing). Consequently we claim that hold-out gestures can be viewed as the first step in the path towards the plurifunctional semiotic system represented in SFL, and the form-meaning representations proposed within Construction Grammar.

Laura Cariola

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Exploring the cognitive motivations in the language of individuals with high and low body boundary finiteness

Lakoff & Johnson (1980) put forward that humans would be predisposed to view their environment in a visual in-out orientation due to their conscious experience of perceiving themselves as being contained and bounded by a skin boundary. Psychological and psychodynamic theories put forward that early socialization experiences would influence the formation of bodily boundaries as well as associated embodied social, semiotic and cognitive processes (Bick, 1968; Cariola, in press; Fisher & Cleveland, 1958; Violi, 2012). This study aimed to explore the cognitive motivations in individuals that vary in their body boundary finiteness by analysing the linguistic content of their written autobiographical narratives of everyday and dream memories. A corpus-based analysis using the USAS tool (Rayson et al., 2004) identified salient semantic domains in the narratives of everyday (N = 488) and dream memories (N = 450) of High and Low Barrier personalities. The results indicated that in both memory types, High Barrier personalities used more semantic domains representing CONTAINER-schematic imagery (Johnson, 1987) (e.g., Vehicles and transport on land), part-whole imagery (e.g., Parts of buildings) and primordial mental activity, such as bodily, sensory, motion and spatial references, that represent structural elements of embodied image schemata (Bergen & Chang, 2007) (i.e., TRAJECTORY-LANDMARK, SOURCE-PATH-GOAL), compared to the semantic domains related to conceptual thought, such as knowledge and emotion references, in Low Barrier personalities. High Barrier personalities also used more semantic fields indicating symbolic spatial, temporal and social boundaries, as well as an increased surfaces awareness. Whereas Low Barrier personalities tended to communicate their thoughts and emotions directly in both autobiographical memory types, High Barrier personalities expressed their emotions figuratively by mapping emotions onto bodily parts. In dream memories of High Barrier personalities, CONTAINER- schematic and part-whole imagery were often damaged and destroyed, whereas in Low Barrier personalities surface and container penetration had a positive emotional valence (e.g., Relationship: Intimacy and sex). The results of this study provide a rich insight into the cognitive and psychodynamic process in the language of individuals with high and low body boundary finiteness. The discussion of this study puts forward, consistent psychodynamic, cognitive and neurological views that perceive primordial thought related to part-whole displacement and condensation (Freud, 1900; Martindale, 1981; Robbins, 2011; Solms, 1997), that the language of the socially and security orientated High Barrier personalities is motivated by a politeness strategy to gain social acceptance, as well as reflecting a part-whole self-other relationship in which the social environment becomes part of the bodily self

through the simulated contact of the CONTAINER surface as an embodied extension of the high-excitatory skin membrane. In dreams, on the other hand, the destruction of these CONTAINER and part-whole imagery might represent the annihilation of social norms that constrain the authentic expression of the true self. In contrast, Low Barrier personalities low social-orientated disposition results in the direct expression of emotions and thoughts as well as an increased concern of factual topics (e.g., The Media).

Marie Herget Christensen

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Line Burholt Kristensen

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Kasper Boye

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Grammar and discourse prominence: The effects of grammatical status and focus on change blindness in written Danish

The distinction between grammatical and lexical items is a cornerstone in linguistic theory. In a recent, usage-based theory, Boye & Harder (2012) accounts for this distinction in terms of discourse prominence: grammatical items are by convention discursively secondary (background), while lexical items have the potential of being primary (foreground). The present paper tests psycholinguistic implications of this theory. It was hypothesized 1) focalized, primary items receive more attention than non-focalized, secondary ones, and thus – in accordance with Boye & Harder (2012) – 2) that lexical items receive more attention than grammatical ones. These hypotheses were tested in a reading experiment which employed the change blindness paradigm (Rensink et al. 1997). 32 adult speakers of Danish read 40 target sentences (and ten filler sentences). Each sentence was presented twice to each participant – for the second presentation, which occurred a few seconds after the first presentation, a target word in the sentence was omitted. The participants were instructed to report whether they had noticed any differences between the two versions. The stimuli were constructed using a 2x2 design, contrasting 1) focal and non-focal items as well as 2) lexical and grammatical ones. Focalization was manipulated by means of Danish focus particles like *også* ('also') and *præcis* ('exactly'); lexical and grammatical items were distinguished in accordance with the diagnostic tests given in Boye & Harder (2012). The results of this experiment support hypothesis 1, but not 2: participants exhibited a significantly greater ($>.001$) change blindness towards grammatical items than towards lexical items, while there was no significant difference between focalized and non-focalized items. This suggest that at least in Danish, the lexicon-grammar contrast is a more important cue to discourse prominence (foreground vs. background status) than focalization (by means of focus particles).

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Adele Goldberg

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Comprehension of taste metaphors activates the gustatory cortex

According to theories of embodied cognition, semantic and conceptual knowledge is represented in systems derived from perception and action (Barsalou, 1999). More specifically, conceptual metaphor theory (CMT) proposes that abstract concepts are represented by means of associations with more concrete concepts (Lakoff & Johnson, 1980) that are grounded in somato-sensory representations (Pulvermüller, 1999). Empirical research has shown that the comprehension of metaphors that contain action words recruits motor areas (Desai et al., 2011), whereas the processing of texture metaphors recruits texture-related brain regions (Lacey et al., 2012). Given the paucity of neuroimaging work on the neural correlates of conceptual metaphors, we aimed to investigate whether reading taste metaphors activates the primary and secondary gustatory cortices, i.e., anterior insula (AIC), lateral orbitofrontal cortex (IOFC) and frontal operculum, when compared to literal sentences. Twenty-six participants were asked to silently read sentences for comprehension, while their brain activity was recorded in an event-related fMRI study. Metaphorical and literal sentences were matched for a range of psycholinguistic and affective variables, including imageability, familiarity, emotional valence and arousal. They differed only by a single word. All sentences evoked stronger BOLD responses in the bilateral superior temporal gyrus, in the left postcentral gyrus, left middle frontal gyrus and left OFC compared to a baseline (hash marks). These areas are part of an extended language network (ELN; Ferstl et al., 2008), which is typically active during text or discourse comprehension. Of special interest is the finding that metaphorical expressions showed significantly stronger activation in primary and secondary gustatory cortices, compared to literal sentences. The same areas showed enhanced activation during reading of single, non-metaphorical taste words compared to non-taste-related words. These results suggest that the comprehension of abstract concepts in fact recruits associated representations of more concrete, modality-specific concepts, therefore lending new neurolinguistic support to the embodied metaphor account.

Agnieszka Czoska

Adam Mickiewicz University

Agata Karaśkiewicz

Adam Mickiewicz University

Communicative movements cooccurring with metatext markers in Polish live reports

Live reports are an example of highly conventionalised multimodal communication. During live report, news presenter conducts a short exchange live from the studio with reporter at the scene. The reporter adds and updates information both visually and verbally to that already provided by the presenter (Montgomery, 2007). During live report spontaneous nonverbal behaviour of the reporter may be observed that may have communicational function. Such communicative behaviour may be connected with the content of the message, but also its metatext elements. Metatext markers (MM) are expressions like “as I said” or “I will tell” that refer to the text of the message or relations between its fragments. Some scholars claim that they add nothing to the content of the message, but may disambiguate it (Fraser, 1999). It is also claimed that MM serve as attention cues guiding the audience's processing of the message (Hyland, 2005; Fetzer & Fischer, 2007). A small corpus study on MM used in Polish live reports regarding hand, head and torso movements accompanying them was conducted. The corpus consisted of about 1 hour of recordings, included 83 MM. Three independent annotators (two naive, one expert) were given fragments of the live reports, half of which contained a metatext marker, and asked to annotate movements performed by the speaker. The expert annotator additionally marked the direction of hand movements she saw in the material. The results suggests that the direction of a hand movement accompanying MM may be correlated with the meaning of this marker. It is most significant for the distinction between previews and reviews (Ädel, 2006) and movements along vertical axis, which may provide new insights into the metaphoricity of upward and downward movements (Sweetster, 1998; Cienki & Müller, 2008).

Ewa Dąbrowska

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Norms, rules and intuitions

Linguistic “intuitions”, or introspective judgments about linguistic expressions are the method of choice in generative linguistics, and are also widely used by cognitive linguists. However, many regard such methods as problematic: introspective judgements are often inaccurate (Gibbs 2006), and many linguistic processes are unconscious and hence not accessible to introspection. On the other hand, as pointed out by Talmy (2005), introspection is a useful source of information about some aspects of language, especially meaning. Although linguistic forms may evoke some unconscious associations, arguably it is the conscious message which is communicated, and hence of most relevance to linguistic analysis. Given the prominent role that introspective judgments to play

in linguistics, it is important to understand what shapes such judgments. I argue that speakers' introspective judgments are influenced by their theories of language, from informal beliefs about what constitutes "correct" usage to theoretical models that linguists subscribe to. Furthermore, these theories in turn are strongly influenced by our experience with written language. The fundamental units that linguists use in their analyses – phenemes, words, and sentences – are largely products of a particular written tradition: illiterate and pre-literate speakers do not have reliable intuitions about such units. Furthermore, grammaticality judgments about isolated sentences are, to a considerable extent, judgments about what is acceptable in written language, and people's intuitions about spoken language are partly shaped by exposure to dialogue in fiction. All this, however, does not mean that linguistic intuitions are not "real": they reflect a particular aspect of linguistic knowledge, and without any doubt affect linguistic behaviour. However, they are best seen not as direct reflections of individual mental representations but rather as of socially constituted norms.

Charles Denroche

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A metonymic theory of translation

In this paper I present a METONYMIC THEORY OF TRANSLATION. I argue that this cognitive approach allows us to develop a better understanding of what is actually involved in the daily work of the translator. Translation is concerned with the processing of metonymic equivalents between source and target language more than with the literal one-to-one substitution of linguistic items. Categories rarely correspond exactly between languages and the relationship between source and target text is rarely metaphorical; instead, it is the middle ground of near approximations and partial overlaps which best describes translation. Work from cognitive linguistics on metonymy helps provide us with these insights. I discuss two areas in translation studies: 'shift theory' (Catford 1965, Vinay & Darbelnet 1955[1958]) and 'metaphor translation' theory (Baker 2011, Broeck 1981, Dagut 1976, Newmark 1982). Work in these areas makes a useful contribution but does not go far enough, I feel. I reinterpret the notion of 'shift' in terms of metonymic relations and re-characterize non-literality as a universal enabler, rather than an occasional obstacle met when translating idioms. I argue that metonymic differences are the basis of both 'interlingual translation' (original to first draft) and 'intralingual translation' (first draft to final version, through revision). The METONYMIC THEORY OF TRANSLATION presented here is grounded in a more general Metonymic Theory of Language and Communication, the cognitive ability to recognize part-whole relations between signs and parts of signs playing a vital role across the entire spectrum of linguistic phenomena.

Steve Disney

University of St Mark & St John

Blended constructions and emerging modals

The forms BE supposed to and BE meant to are ‘polysynonymous’; both have deontic and prohibitive uses in their passive-like forms (for example Noël and van der Auwera 2009). In British English these forms also have a hearsay use (Disney 2013). Following a summary of these uses and their idiosyncrasies, this paper describes an extension, illustrated in (1), which reports a ‘prediction’ based on some authoritative source. With the important exception of BE expected to, this use is not common to other hearsay or deontic verbs used in the same pattern.

1. Original data 2009

B) Sunday’s supposed to be sunny.

A) Yeah it’s meant to be nice til Monday.

Drawing on Construction Grammar (e.g. Goldberg, 1995 and Croft, 2001) and Mental Space theory (Fauconnier and Turner, 2002), the paper argues that the development results from a blend of existing uses. The relation of these two fields is noted by e.g. Langacker (2004) but has not been drawn on to a great extent to explain complex historical developments. I relate the fields thus; pairs of form and meaning, i.e. ‘constructions’, “mobilize concepts” (Cruse 2011: 46). Concepts can be construed as ‘mental spaces’. Two or more existing concepts can be blended to create new mental spaces with an existing form attached to it. For example, certain features of ‘bankers’ are mapped onto corresponding features of ‘sharks’ to create a blended mental space where ‘bankers are sharks’. By extension, they may ‘prey’ on smaller, more vulnerable fish/people. As the old form gains a new meaning (the blend), it may become a new construction. In the case of examples like (1), the hearer will assume that the prediction is necessarily reliable because the original source is supposed (both ‘assumed’ and ‘required’) to have ‘expert’ evidence on which to base the prediction. This “new” sense of BE meant/supposed to is then the result of a blend of the existing hearsay and deontic uses. It is noted that each form maintains some syntactic restrictions from its source construction. There is also a counterfactual use where a past prediction proves false.

Dagmar Divjak

University of Sheffield

Antti Arppe

University of Alberta

Unusual suspects: TAM markers predict lexical choice best

Frequency has long been known to be among the most robust predictors of human behaviour (Hasher & Zacks 1984). Evidence has accumulated that frequency of exposure is an experience that

drives linguistic behaviour too. Work within corpus-based cognitive linguistics has shown that conditional probabilities, or the likelihood to encounter Y given X, predict speaker behaviour for a range of phenomena rather well. Yet, with the exception of Bresnan (2007), Bresnan & Ford (2010) and Arppe & Abdulrahim (2013), corpus-based studies have not typically compared the prediction accuracy of their models with that of native speakers. And with the exception of Divjak & Gries (2008) studies have not typically considered whether the variables that drive the model are those that drive speakers. In this talk we report on a reaction task, designed to test whether the same variables drive model and speakers. We use the data on synonyms that express TRY in Russian for which a series of off-line psycholinguistic experiments has shown that the model is equally accurate as participants as a group in predicting choice and shows similar error patterns (Divjak et al. 2013). Models fit to the TRY data (Divjak 2010, Divjak & Arppe 2013) suggest that TAM markers, often overlooked in lexical semantic studies, are the strongest predictors of lexical choice. To validate this finding, we ran a self-paced reading task in which 40 (20 male, 20 female) adult native speakers of Russian read a number of authentic corpus sentences; these sentences contained TAM markings that the model deemed typical or atypical for a specific verb. A negative correlation between probability of occurrence and reading times for TAM combinations, with more typical TAM markings leading to quicker reading times, would confirm the cognitive reality of the corpus-based model. At a more general level, the results will provide insight into the level of granularity at which speakers record data and corpus-analysts need to work to be able to claim cognitive reality.

Dagmar Divjak

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Anna Socha

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A usage-based categorization of modality

Over the past 2 decades, several theoretical accounts have been proposed to capture modality (Perkins 1983, Huddleston 1988, Sweetser 1990, Bybee et al. 1994, van der Auwera and Plungian 1998, Palmer 2001, Hengeveld 2004, Nuyts 2006). Given the abstract nature of this concept, it is unsurprising that linguists do not agree on the number of modality types to distinguish, with Palmer (2001) proposing two types (event modality and propositional modality), Perkins (1983) suggesting three (dynamic, deontic and epistemic modality), and van der Auwera and Plungian (1998) insisting on four (deontic, epistemic, participant-internal, and participant-external modality). In this talk, we present the results of a study on Polish data that aims to shed light on the number and nature of modal categories that are supported by language use. More in specific, we look at the role empirical data and quantitative methods can play as objective viewpoints on previous intuitive analyses of modal types. We base our investigation on corpus and experimental data. The corpus-based dataset was extracted from the NKJP [<http://www.nkjp.pl/>]; the entire dataset contains random samples of

250 independent observations for each of the 6 most frequent modal adverbial and adjectival predicatives. All observations are annotated for morphological, syntactic and semantic properties using the Behavioral Profiling approach (Divjak and Gries 2006). Experimental data was obtained by means of a survey in which naive native speakers of Polish were given a definition and some examples of each modality type and were asked to label the modality expressed in a number of sentences taken from the random samples. We use multiple correspondence analysis for a first exploration of the corpus data, and (polytomous) regression to model which aspects of usage may be crucial in triggering a specific modal reading. In a second step, we validate our model by contrasting our corpus findings with data from our experiments with native speakers. The analysis thus captures the way in which the different modality types correlate with usage data and the extent to which theoretical linguistic classifications correspond to semantic categories that naive speakers employ.

Sarah Duffy

Northumbria University

The role of cultural artefacts in the interpretation of metaphorical expressions about time

Across cultures, people employ space to construct representations of time. English exhibits two deictic space-time metaphors: the Moving Ego metaphor conceptualises the ego as moving forward through time and the Moving Time metaphor conceptualises time as moving forward towards the ego. Earlier research investigating the psychological reality of these metaphors has shown that engaging in certain types of spatial-motion thinking may influence how people reason about events in time. More recently, research has shown that people's interactions with cultural artefacts may also influence their representations of time. Extending research on space-time mappings in new directions, three experiments investigated the role of cultural artefacts, namely calendars and clocks, in the interpretation of metaphorical expressions about time. Experiment 1 directly investigated whether responses to a temporally ambiguous question may be attributed to the way the calendar is used in English, comparing responses to the question elicited via a calendar with responses elicited metalinguistically. Building on insights from earlier research, which suggest that culturally specific spatial representations shape how people think about time, Experiment 2 compared responses to an ambiguous temporal question elicited via a calendar with responses elicited via a 'reverse' (right-to-left) calendar. Experiment 3 then investigated the role of the analogue clock in the resolution of an ambiguous temporal question, comparing responses elicited via a clock with responses elicited via a 'reverse' (anticlockwise) clock. Taken together, the results provide initial evidence that in their interpretation of ambiguous metaphorical expressions about time, people automatically access and use culturally specific spatial representations that are consistent with the direction of orthography in their native language. Moreover, asking participants to use a reverse space-time mapping causes interference, which is reflected through their temporal reasoning.

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Moving through time: The role of personality in three real life contexts

In English, two deictic space-time metaphors are in common usage: the Moving Ego metaphor conceptualizes the ego as moving forward through time and the Moving Time metaphor conceptualizes time as moving forward towards the ego (Clark, 1973). Whereas earlier research investigating the psychological reality of these metaphors has typically examined spatial influences on temporal reasoning (e.g. Boroditsky & Ramscar, 2002), recent lines of research have extended beyond this, providing initial evidence that personality differences and emotional experiences may also influence how people reason about events in time (Duffy & Feist, 2014; Hauser, Carter & Meier, 2009; Richmond, Wilson & Zinken, 2012). In this paper, we investigate whether these relationships have force in real life. Building on the effects of individual differences in self-reported conscientiousness and procrastination found by Duffy & Feist (2014), we asked whether, in addition to self-reported conscientiousness and procrastination, there is a relationship between conscientious and procrastinating behaviours and temporal perspective. We found that participants who adopted the Moving Time perspective were more likely to exhibit conscientious behaviours, while those who adopted the Moving Ego perspective were more likely to procrastinate, suggesting that the earlier effects reach beyond the laboratory.

Kim Ebensgaard Jensen

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Force-dynamic cultural models in a scalar adjectival construction

Consider the following instances of the scalar adjectival [too ADJ to V]-construction:

- (1) The tatty furniture betrayed elegant lines, and the windows, too grimy to see through, stretched up ten feet. (COCA 2011 FIC Bk:NeverGentleman)
- (2) They're too slow to catch a seal in open water. (COCA 2011 MAG NationalGeographic)
- (3) If the making of a revolution is drama, punctuated with tragedies too numerous to count, making peace is long-form prose requiring iterations of conversation between people. (COCA 2011 MAG TechReview)
- (4) I'm too young to get married. (COCA 2011 FIC Callaloo)
- (5) I'm in a certain group that's almost too old to hire. (COCA 2011 NEWS Denver)
- (6) Mr. Turman insisted he was too busy to meet at any other time. (COCA 2011 NEWS NYTimes)

In all instances, semantic relations of force-dynamics are set up between the adjective and verb positions, such that the adjective describes an attribute or a feature, the degree of which is so high that the situation predicated by the verb is prevented from happening. However, while (1-3) reflect perceptions of 'natural' force-dynamic relations, (4-6) appear to draw on culturally defined force-dynamic relations. This seems to indicate that the constructional semantics may interact with underlying cultural models (Holland & Quinn 1987, Ungerer & Schmid 2006: 51-59) of force-dynamics or causation (d'Andrade 1987: 117-118). In their study of the English into-causative, Gries & Stefanowitsch (2004: 232-234) suggest that collexeme combinations in a construction indeed can reflect cultural models. Applying covarying collexeme analysis (Stefanowitsch & Gries 2004) and simple collexeme analysis (Stefanowitsch & Gries 20003), the present study investigates collexeme combinations in the [too ADJ to V]-construction in the COCA (Davies 2008-2013) in order to see how the constructions, via collexeme combinations, reflects force-dynamic cultural models.

Elisabeth Engberg-Pedersen

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Reporting characters' speech in narratives: Evidence from children with autism and typically developing children

Reporting, or constructing (Tannen 1986), the speech of others requires speakers to view events from their deictic and emotional centre to varying degrees. Full identification with others is seen in direct quotation. In indirect quotation speakers maintain their own deictic and emotional centre, but ascribe the proposition and its truth value to somebody else. In style indirect libre speakers also use deictic terms from their own viewpoint, but the emotional terms express the quoted person's views (Jakobson 1971; Banfield 1973). The two latter forms, thus, require speakers to mix viewpoints. Children with autism (ASD) are known generally not to engage in pretense and role play (Leslie 1987), and to fail or being delayed in passing classic Theory of Mind tasks (Baron-Cohen, Leslie & Frith 1985; Happé 1994, 1995). Such cognitive and emotional limitations can be expected to be reflected in the children's use of reported speech. This study compares narratives based on Mayer's wordless picture book *A Boy, a Dog, and a Frog* (1969) from a fairly homogeneous group of 27 Danish high-functioning children with ASD, aged 10-12, with 30 typically developing children (TD) matched on chronological, verbal, and non-verbal mental age. As a group, the ASD-children used as many different types of reported speech constructions as the TD-children, but they used significantly more tokens of direct speech, i.e., the single viewpoint construction type where the children are free to construct a quotation as they feel it fits the storyline. This result is illuminated by other differences between the two groups of children in their use of constructions expressing a single or a mixed viewpoint of perception, feelings, intention, and thoughts. It is argued that evidence from individuals with autism can serve as the 'converging evidence' that is a methodological necessity in Cognitive Linguistics (Langacker 1999; Evans & Green 2006).

Vyvyan Evans

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The human meaning-making engine

In his landmark work, *The Symbolic Species* (1997), cognitive neurobiologist Terrence Deacon argues that human intelligence was achieved by our forebears crossing what he terms the “symbolic threshold”. Language, he argues, goes beyond the communicative systems of other species by moving from indexical reference—relations between vocalisations and objects/events in the world—to symbolic reference—the ability to develop relationships between words—paving the way for syntax. But something is still missing from this picture. In this talk, I argue that symbolic reference (in Deacon’s terms), was made possible by parametric knowledge: lexical units have a type of meaning, quite schematic in nature, that is independent of the objects/entities in the world that words refer to. I sketch this notion of parametric knowledge, with detailed examples. I also consider the interactional intelligence that must have arisen in ancestral humans, paving the way for parametric knowledge to arise. And, I also consider changes to the primate brain-plan that must have co-evolved with this new type of knowledge, enabling modern *Homo sapiens* to become so smart.

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Directional verbs as fusion of linguistic and gestural elements in British Sign Language: A corpus-based study

Directional verbs (‘agreement’ (Padden, 1983)/‘indicating’ verbs (Liddell, 2000)) in sign languages, e.g. GIVE in British Sign Language, can be directed towards locations in space associated with their arguments. Some (Lillo-Martin & Meier, 2011) have argued this modification is fundamentally the same as grammatical agreement in spoken languages, is obligatory (at least for object marking), and is often accompanied by grammatical non-manual markers such as eye-gaze (Neidle et al., 2000). Others (Liddell, 2000) propose this modification is fundamentally different from agreement, representing instead a fusion of linguistic and gestural (specifically pointing) elements. Here we consider linguistic and social factors in the use of directional verbs in conversation data from the BSL Corpus (Schembri et al., 2013, n=657). Preliminary results reveal that modification of directional verbs occurs for both subject (82%,n=422/516) and object arguments (63%,n=348/549), but not obligatorily for either. Furthermore, 3rd-to-3rd person modification is rare, occurring only 10 times in our data. (Examples of prototypical directional verbs in the literature involve 3rd-to-3rd person

modification (e.g. JOHN POINT_a MARY POINT_b aASK_b “John asked Mary”). Additionally, constructed action (i.e. nonmanual enactment/embodiment) co-occurred with 65% of tokens where eye-gaze was directed towards a verbal argument. Statistical analysis revealed that constructed action and also coreference with a previous clause favour object modification ($p < 0.01$). The rate of modification suggests that directionality in BSL is not obligatory; while this may be attributed to ongoing grammaticalisation processes, no social factors were significant thus no evidence was found of language change across age groups. Instead, our results appear to align with the view that directional verbs represent a fusion of linguistic and gestural elements (de Beuzeville et al., 2009; Liddell, 2000). These findings highlight the importance of using corpus data for (sign) linguistics research, to verify or counter previous claims based on little data.

Giorgia Ferrari

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A cognitive linguistic approach to Arabic as a Foreign Language Diglossic Vocabulary Building

Since Charles Ferguson (1959) introduced the concept of diglossia into sociolinguistic literature Arabic has been described as a diglossic language, in which highly codified, formal and written varieties coexist with lower, informal and spoken varieties. In this paper, I argue that the essence of diglossia is in the speaker’s mind and it reflects their mental categorization of the different functions that language varieties fulfil. A reconceptualisation of diglossia greatly affects the field of the Teaching of Arabic as a Foreign Language (TAFL), as it implies that students of Arabic need to be alert to sociolinguistic variation and to develop linguistic skills that allow them to perform a native-like diglossic level of differentiation. Thus, it is necessary to teach both the formal standard variety together with a variety of colloquial Arabic. Since vocabulary is the major contributor to proficiency and the strongest predictor of proficiency ratings (Iwashita et al., 2008), the development of diglossic vocabulary is the requisite for proficiency in Arabic. Inasmuch as it implies a potential overload for students, it is necessary to make sure that they are able not only to enlarge their vocabulary quickly and efficiently, but also to reduce the efforts required to memorise vocabulary. This can be achieved through cognitive linguistic approaches based on explicit vocabulary instruction, focus on form and focus on phonetic variation between formal and vernacular Arabic. Moreover, diglossic vocabulary building can be accelerated by drawing students’ attention on regular changes that occur comparatively within word patterns and features of both varieties. Cognitive approaches are to be employed as they motivate students’ cognitive engagement and encourage learners to wonder why and how words can be interrelated and how the structure of the word changes from one variety to the other.

Gabriel Flambard

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Saliency and the choice between "do it", "do this" and "do that"

This paper presents a corpus-based analysis of the role of saliency in the choice between the VP anaphors *do it/do this/do that*, which seeks to determine whether it follows the same conditions as when these pronouns are used outside VP anaphors. There is evidence that anaphors are sensitive to the accessibility of the referent (e.g. Cornish, 1999), and that referential expressions encode different levels of saliency (Ariel, 1990; Prince, 1981). Gundel et al. (1993)'s 'givenness hierarchy' is one of several attempts to classify individual anaphors according to the required saliency of their referent. Within this model, the referent of *it* must be 'in focus' - enjoying focus of attention - whereas *this/that* require an 'activated' referent, i.e. present in short-term memory. Little has been said on how these requirements affect VP anaphors. Miller (2011) suggests that *do it* requires only an activated referent, but *do this/that* both have lower requirements, and exhibit similar constraints to those predicted by Gundel et al for *this/that*: using *do this/that* where the antecedent is sufficiently salient for *do it* is infelicitous (1), as is reversing the order of *do it* and *do this* in (2):

(1) If Kipp wants to set *_re* to the town garage, he does it.

(2) I thought I should do this, so I did it!

In a pilot corpus of 20 occurrences each of *do it/this/that*, the anaphors were replaced by *do X* and the examples were randomly sorted, allowing us to code the anaphors with Gundel et al.'s categories without knowledge of the object pronoun. Preliminary results suggest Gundel et al.'s categories are at least partly relevant in explaining the choice of *do it* vs *do this/that*. These findings will be tested further using a larger corpus and independent tagging by another coder to ensure accuracy.

Guro Fløgstad

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Pragmatic strengthening and the Rioplatense Preterit

The preterit is expanding in Rioplatense Spanish (cf. also Howe 2013), and is currently being used to cover functions previously associated with the perfect, such as current relevance (CR), seen in (1), illustrating experiential function:

(1) Conociste Punta del Este?

Know-2SG.PRET punta del Este

'Have you gotten to know Punta del Este?'

A gradual and significant decrease in perfect use is documented through a multivariate analysis of spontaneous speech data of three age groups. The experiential subcategory of the perfect is early in the expansion, showing variation at 51% vs. 49% use in CR function in the oldest sources, increasing to 95% vs. 5% in young/adolescent speakers. It is argued that this early expansion stems from the semantic properties of the experiential; it is tense-like and has an abstract CR component (Lindstedt 2000), and is thus more compatible with the original semantics of the preterit category (Howe 2013). The experiential is argued to be the locus of the expansion of the preterit, which occurs through a two-step process; 1) the preterit is used to express experientiality as the specific time frame is assumed to form part of the semantics of the construction, and becomes semanticized through a process of pragmatic strengthening (Traugott & Dasher 2002), and 2) the hearer interprets it as expressing current relevance because the lack of specific time frame in the new use of Preterit (Dahl & Hedin 2000). Rioplatense and other Latin American Spanish varieties exhibit substantial variation in the expression of Perfect/Preterit, and there is evidence for the expansion of a Preterit, rather than the proposed regular Perfective Path (Bybee et al 1994). This third-order variation is interpreted as pervasive (Croft 2010), and not directional (Norde 2009), rather forming a network of possible distributional outcomes.

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Heinrich Heine University Duesseldorf

Wiebke Petersen

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Analyzing verb polysemy in frames: A case study of German 'steigen' ('rise/climb')

In the talk, we present a frame account of the meaning variation found in spatial and abstract senses of the German movement verb *steigen*. The verb is similar to English *climb*, which has been discussed among others by Fillmore (1982), Jackendoff (1985) and Levin & Rappaport (2013). Yet, *steigen* exhibits a richer meaning spectrum comprising readings which translate variously into English as *climb*, *rise*, and also *step*. We focus on the three major uses of *steigen* as a manner of motion verb as in (1a), as a verb of directed motion as in (1b), and as a figurative verb as in (1c). The figurative use abstracts away from spatial motion and refers to abstract “motion” along a scale instead.

(1)

- a. Hans stieg auf den Mount Everest.
H. climbed on the M.E.
'Hans climbed the Mount Everest.'

- b. Der Ballon stieg.
the balloon climbed
'The balloon was climbing.'
- c. Die Temperatur der Flüssigkeit steigt.
the temperature of the liquid is rising
'The temperature of the liquid is rising.'

In our analysis, we contrast the different readings in terms of Barsalou frames which are made up of recursive attribute-value structures (Barsalou 1992, Petersen 2007). This gives us access to the correlations that hold among subevents, manner, positions and the path traversed by the theme argument, and yields a flexible representation of the event and argument structure. There will be a particular focus on the relationship between the literal uses and the figurative variant. We will offer an account in which the relation between these uses is captured as a transfer of the relevant verb-frame-internal attributes in the literal uses to verb frame-external attributes which are realized by nouns such as Temperatur 'temperature' in the figurative use. Thereby, we offer an approach to verb polysemy which goes beyond the usual picture of a metaphor.

Melody Geddert

Kwantlen Polytechnic University

Cross-linguistic perceptions of tone in academic reading materials

Effective inter-cultural communication in a global context has now become imperative as the number of students studying in English internationally has become significant. As many academic instructors can attest, the ability to identify tone in textbook reading often goes undetected by many English Second Language students, thereby reducing the students' understanding that not all of their educational experience is dull and dry. Research abounds on many aspects of cross-linguistic differences in humour, particularly joke telling. Ample research also exists on how language learning can be facilitated by the incorporation of humour. However, there seems to be little information specific to cross-linguistic differences regarding tone recognition in academic materials. This paper presents an overview of an empirical study done at a Canadian university examining the perceived differences among approximately 400 first year university students from 14 different linguistic groups as related to humorous tone in academic textbooks across a range of subject areas. The study then analyses the results for specific areas of difference while applying theories of cognitive semantics to account for some of the problematic items. This study provides some empirical evidence that when learners have not yet highly acquired the general conceptual mechanics of a new language, it is difficult to sense when constructions for the purpose of humour solely have occurred. This research is in further development to a paper published in *Language and Humour in the Media*, Cambridge Scholars, 2012, which applied sociolinguistic schema theory to a previous smaller sampling.

Tim Geleyn

Ghent University

Timothy Colleman

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The dative alternation in 17th century Dutch

In Dutch, many ditransitive verbs alternate between two largely functionally equivalent argument structure constructions, viz. (i) the double object construction (DOC) in which the theme and recipient arguments are both encoded as zero-marked objects (sentence a) and (ii) the prepositional dative construction in which only the theme argument appears as a zero-marked object and the recipient argument is marked with a preposition, usually *aan* (sentence b). The emergence of the latter construction in the 16th century is linked with the general shift towards the prepositional marking of semantic functions, as a result of the loss of morphological case in Dutch.

- a. De man heeft zijn broer een boek gegeven/overhandigd/verkocht/aangeboden/beloofd.
'The man has given/handed/sold/offered/promised his brother a book'
- b. De man heeft een boek aan zijn broer gegeven/overhandigd/verkocht/aangeboden/beloofd.
'The man has given/handed/sold/offered/promised a book to his brother'

In this paper, we will try to document the use of the *aan*-dative in the 17th century, at a time when the construction was already sanctioned by contemporary grammarians. More specifically, we will approach the *aan*-dative from an onomasiological perspective, viz. its relation to the DOC. As a first step, a distinctive collexeme analysis (DCA, Gries & Stefanowitsch 2004) may provide clues about the semantic relation between these two alternating constructions, and the comparison with a DCA of present-day Dutch (Colleman 2009) may reveal shifts in the constructional preference of (groups of) verbs, and thus possible changes in the constructional semantics. Next, we will try to determine to what extent the choice between both constructions in the earlier periods was determined by the same (kinds of) factors known to determine the dative alternation today (Bresnan et al. 2007). We will include semantic parameters (e.g. semantic class of the verb, animacy of the arguments), formal parameters (e.g. length of theme and recipient) and discourse parameters (e.g. givenness of theme and recipient).

Ines Ghachem

FLSHS

The representation of the Syrian refugees by the UNHCR

The study of non-governmental organizations' discourse, as one of discourse genres, unveils not only the representation of the writer of the discourse, but also those written about and those to whom it was written. The critical analysis of socio-cognitive aspects of discourse production and reproduction

highlights the choice of metaphors in understanding social, political, cultural ... events. This paper investigates the representation of the category of refugees in an NGO's official media. The study draws on Critical Discourse Studies (CDS) (T. A. Van Dijk's sociocognitive approach) and Conceptual Blending Theory (Fauconnier, 1997) through the focus on the notions of metaphor, categorisation and representation. This paper also stops at the role played by the context (Van Dijk, 2006) as a mental phenomenon affecting the positioning and rearranging of the representation of the different actors. The main aim of this paper is approached through combining both quantitative and qualitative analysis. The corpus analysed is made up of articles posted starting from 2011 on the UN Refugee Agency the UN High Commissioner for Refugees' (UNHCR) home website: <http://www.unhcr.org/> as Stories about Syrian refugees. The analysis of the metaphors used in the corpus reveals that, taking into account both the local and the global context of the articles, the representation of the Syrian refugees leads to a particular view of their experience and reality. The critical analysis also shows that the categorisation of Us and Them backgrounds a biased representation. In sum, this CDS analysis of metaphors in categorising and representing refugees reveals characteristics of an official discourse of an NGO.

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Is conceptual blending the key to the mystery of human evolution and cognition?

Conceptual blending (or conceptual integration) theory is, no doubt, one of the central conceptual pillars of modern cognitive linguistics, and it has had considerable influence on cognitive science in general. According to the authors J. Fauconnier and M. Turner, conceptual blending is the key to the mystery of human evolution and cognition. In particular, the origin of language is strictly connected for these authors with the evolution of double-scope blending (Fauconnier, Turner 2002: V; for an extended commentary, see: *ibid.*: 389-396; Fauconnier, Turner 2008). At first sight, such a ground breaking point would be expected to lead to an intensive debate and to meet strong criticism from less radical researchers. However, in fact there has been no concentrated debate around conceptual blending theory. We can find a number of papers raising some objections (Gibbs 2000; Harder 2003; Brandt 2005; Oakley, Hougaard 2008: 12; Ferguson, Sanford 2008: 610), but a comprehensive analysis of the theory's underpinnings, methodology, heuristic potential and, particularly, its approach to the origin of language, is a matter for the future. This work can be considered as a step in that direction. It is shown in this research that the view on blending as an important tool to adapt knowledge to the experience of lay people seems to fit the gist of the procedure better than view of blending as a basic instrument for the creation of new knowledge. Furthermore, the claim that the conceptual blending faculty emerges about 50,000 years ago contradicts the evidence of cultural-historical psychology. As a result, the view of double-scope blending as the cause for the origin of language and various forms of culture falls short of the truth. In addition, we can point to a gap between some of the predictions of conceptual blending theory and data of real-time experiments.

Do type and token frequency influence the selection of a word's inflected forms?

Russian speech errors were analyzed based on the frequency data from the spoken part of the Russian National Corpus to explore whether speakers use any kind of probabilistic information about inflected word forms during natural language production. The analyses involved 242 spontaneously produced speech errors (slips of the tongue) that resulted in the selection of a wrong inflected form of a noun, pronoun, verb, or adjective. The errors were collected by recording everyday conversations, telephone conversations, and live TV and radio programs. The results indicate, firstly, that token frequency is relevant to the selection of inflected word forms. A comparison between the raw frequencies of the target and error word forms in the corpus reveals that the general tendency is for a higher-frequency inflected form to substitute for a lower-frequency form. Furthermore, it appears that the selection of inflected forms is sensitive to type frequency. A comparison between the relative frequencies of the target and error forms within the word's declension paradigm suggests that the case forms of nouns and personal pronouns that occur most frequently in spoken Russian (nominative, genitive, and accusative) tend to substitute for the less frequent oblique case forms such as the dative whereas the higher-frequency nominative and accusative forms tend to replace the genitive. At the same time, the results seem to be indicative of a hierarchy of grammatical forms rather than grammatical features. To sum up, Russian speech error data reveal that probabilistic information about a word's inflected forms is available in the speaker's production lexicon and that higher-frequency inflected forms are more likely to be selected during language production. These findings provide psychological evidence in favour of usage-based models of mental grammar suggesting that the degree of entrenchment, assumed to be a mental correlate of frequency, may influence the selection of a word's inflected forms.

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Seeing, saying, and meaning: What eye-movements reveal about the entrenchment of constructions

In this paper we report findings from a study on variation in the linguistic construal of spatial scenes by speakers of German. Starting from the assumption that different spatial language constructions realize different attentional construal meanings (cf., e.g., Verhagen 2007), this study used a visual world eye-tracking paradigm (cf., e.g., Hartsuiker et al. 2011) to reveal possible relationships between speakers' choice of construction for scene description and their oculomotor behaviour when looking at these scenes. It was predicted that uses of dimensional adjective-plus-noun constructions of the type "in der vorderen rechten Ecke" ('in the front right-hand corner') realize more strongly object-focused construals of their referent scenes and thus correlate with stronger deployment of attention towards object-specific information than uses of dimensional adverb constructions of the type "vorne rechts" ('front(ADV) right(ADV)') (cf., e.g., Carroll 1993). Interestingly, this prediction received support only from within-speaker comparisons, that is, from speakers who variably made use of either of these two construction types in the course of the experiment and who could thus be assumed to possess equally strongly entrenched knowledge of both construction types. In contrast, no differences in oculomotor behaviour were found when the comparisons were made between groups of speakers who consistently used either dimensional adverb or dimensional adjective-plus-noun constructions and who could thus be assumed to have strongly entrenched knowledge of only one of the two construction types. We take the results to mean that particular construction types may not be considered to be conventionally, and thus more or less stably, associated with particular (construal) meanings in a particular speech community, but that the realization of these meanings is crucially dependent on the presence of competing constructions in individual speakers' cognitive contexts. These findings can thus be taken to indicate, firstly, that construction-associated meanings might be more strongly individual-specific and thus less strongly conventional than the findings from many quantitatively focused investigations in the field of usage-based (cognitive) linguistics might suggest, and, secondly, that the aspect of contrast and thus the principle of the differential nature of the linguistic sign (Saussure [1916] 1986) might constitute a central organizing principle of linguistic knowledge in individual speakers' minds.

Helge Gundersen

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Explaining folk etymology

As a technical term in linguistics folk etymology, or popular etymology, usually refers to a type of change involving the lexical parts of words (or phrases), in which a part of the word becomes categorized by another word (stem). This lexico-morphological reinterpretation will result in one or two new constituents of a compound, or a new derivational base, and the word becomes more analysable. Examples: German Gastronomie has become associated with Gast 'guest' (Olschansky 1996), and Swedish albåge 'elbow' has been altered into armbåge, by association to arm 'arm'. Since Förstemann (1852) brought the phenomenon into focus, it has been apparent to many linguists that these changes are driven by benign factors. This theoretical paper will summarize the explanations given in a systematic way. In the context of cognitive linguistics the presentation will synthesize and expand on previous ideas, employing a three-way relation between unsupported (or isolated) words, analysable words and autonomous words. In the process it will also indicate limitations of, and some differences between, orientations, including prestructuralist and structuralist. Hopefully, it can be appreciated that folk etymology tells us something important about language and the human mind in general. The paper is aimed at anyone interested in lexicology, word change, linguistic explanations or the history of linguistics.

Beate Hampe

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Constructional underspecification in English: A contrastive approach

This talk takes up some of the questions that were raised by the results of a previous corpus study of the so-called English "passive of experience" (Hampe 2008). Interestingly, the passive of experience as a clause-level construction (see a.) is formally identical with/homonymous to another English construction that exhibits a contrasting semantics, viz. the so-called "causative have" (see b.). There is thus a clear underspecification of the constructional meaning by its syntactic form. This observation is confirmed from a contrastive perspective (König & Gast 2011). German, for instance, employs a construction with lassen as the counterpart of "causative have" (see c., d.):

- a. I had my purse stolen.
- b. I had my hair cut.
- c. Mir wurde die Geldbörse gestohlen./Man hat mir die Geldbörse gestohlen.
- d. Ich ließ mir die Haare schneiden/Ich habe mir die Haare schneiden lassen.

The original study provided a collocation analysis of the more than 1200 tokens of the surface form "X have X's Y VERB-ed" in the entire BNC. Simple collexeme analyses (Stefanowitsch & Gries 2003) were employed to determine the verb and noun types most closely associated with the

pattern, while a co-varying collexeme analysis (Gries & Stefanowitsch 2004; Stefanowitsch and Gries 2005), identified the most typical V-NP combinations in the pattern (e.g. steal purse, cut hair). Both kinds of analysis showed the non-causative and causative meanings to be equally central to this syntactic pattern. But the analysis also showed that the tokens of the pattern were not in fact instances of two semantically clearly distinct constructions, but rather occupied different points along a semantic cline between two extremes, varying with respect to (i) whether the referent of the subject-NP was understood as agentive and/or in control, (ii) whether the possessum was an alienable or inalienable part of the subject-NP as possessor and (iii) whether the effects on the possessor were detrimental or beneficial. This study extends and completes the earlier one by (i) providing a detailed comparison of the formal realisations of the constructional meanings in both English and German (including the differences in the expression of 'possession', cf. König & Gast 2011), and (ii) by bringing in the results of a second empirical study. In this study, advanced students of English translated English examples into German, which expresses causative meanings by the construction with *lassen* (d.). In accordance with the results of the first study, experimental items were adapted from the corpus data and restricted to lexical realisations with high collocation strengths in the co-varying collexeme analysis ($p < 0.001$). In addition, the semantic cline observed in the previous study was operationalized by way of a three-way sorting: (1) clear instances of the passive of experience, (2) clear instances of causative have, (3) intermediate cases. Students were not presented with more than 6 experimental items in pseudo-randomized order which were interspersed in 24 distractors. The results of the extended study on the passive of experience raise issues that are of wider concern to a construction-grammar approach to present-day English syntax, as cases of constructional underspecification are not infrequent (see, e.g., the distinction between the resultative and attributive construction in the complex-transitive network, Hampe 2011). These issues pertain to (i) construction networks in which neighbouring constructions may partially overlap and (ii) to the properties of (some privileged) low-level (i.e. partially lexically determined) constructions that may act as models in that they define a level at which constructional meanings are kept maximally distinct.

Christopher Hart

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Spatial point of view and evaluation in discourse on political protests

This paper continues to develop a program of research which has recently emerged investigating the ideological functions of spatial construals in social and political discourse from a Cognitive Linguistic perspective (Cap 2013; Chilton 2004; Dunmire 2011; Filardo Llamas 2013; Hart 2013a/b, 2014a; Kaal 2012). Specifically, inspired by principles in Cognitive Grammar (Langacker 2008), the paper attempts to formulate a grammar of 'point of view' and show how this trans-modal cognitive system is manifested in the meanings of individual grammatical constructions which, when selected in discourse, yield mental representations whose spatial properties invite ideological evaluations. The link between spatial organisation and ideological evaluation in these mental models, it is argued, is a function of our embodied understanding of language. These theoretical arguments are illustrated with data taken from online news reports of two political protests.

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Prefixation and Force Dynamics: A corpus-based study on German prefix constructions

The study of affixation patterns is of central concern for Cognitive-Linguistic and constructionist approaches for various reasons: First, affixes carry highly schematic meanings (cf. e.g. Langacker 1987) and can thus give valuable clues to the cognitive capabilities for abstract thought underlying human language. Second, all affix constructions are subject to specific word-formation constraints, which can provide a window to the cognitive organization of language. Studying the diachronic development of affixation patterns can therefore prove highly insightful for investigating the nature of linguistic constructions. This paper presents a diachronic corpus analysis of five highly frequent German prefixes. Drawing on a corpus of more than 80 texts from the Early New High German period as well as on the GerManC corpus (Durrell et al. 2007), their development from the 16th century onwards is investigated in quantitative terms. We argue that the concept of force dynamics (Talmy 1988) provides a valuable heuristic framework for analyzing the schematic construal patterns evoked by the respective prefix constructions. It is the diachronic change of these construal patterns that determines the emergence of new word-formation constraints affecting the respective constructions. The diachronic development can also be regarded as a process of functional reorganization leading to a more clear-cut division of the different functions fulfilled by the respective prefixation patterns. In addition, new functions emerge as the prefixes become obligatory for specific words in specific contexts. For example, prefixes function as markers for figurative readings in Fictive Motion sentences (cf. Talmy 1996), e.g. *Die Straße verläuft entlang des Flusses* ‘the road runs along the river’. In a more theoretical perspective, the study of prefixation patterns as well as their diachronic development can also give clues to the question whether affixes can be considered constructions in their own right or merely constituents of larger constructional schemata (cf. Booij 2010).

Naoko Hayase

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Supposing as an intersubjective marker: A scenario-based study on the development of (Inter)subjectivity in insubordination

A participial clause beginning with *_supposing_* is often used in its suspended form without the following main clause. This is an example of Insubordination (Evans 2007) that implies various pragmatic meanings. In *_supposing_* clause, it comes to acquire a special interpersonal or intersubjective function: to invite the hearer’s reaction. This paper argues the implication is obtained

through a pragmatic strengthening, i.e., to incorporate the statistically skewed environment in which *_supposing_* clause occurs. *_Supposing_* clause tends to occur in interrogative environments. This feature is a statistic reflection of the scenario-like semantics consisting of hypotheticals.

(1) Supposing that he risked a search, what would be the best way of doing it? (COCA)

Here *_supposing_* clause functions like *_if_*-antecedent and strongly anticipates the consequent to come. Moreover, the main clauses, especially in SPOKEN genre, are heavily skewed toward interrogatives (13 out of 18 in BNC; 138 out of 141 examples in COCA). The frequently-occurred interrogative environment comes to be incorporated into the insubordinated *_supposing_* construction, which implies approximately “what if...?” Another feature of the insubordinated *_supposing_* construction is its intersubjective force: to make the hearer to respond.

(2) KING: Supposing President Obama say, General, be my secretary of Defense.

POWELL: You know, when a president asks you to do something, you have to listen and consider it. But I'm not interested in another government position. (...) (COCA)

It comes to be a discursive signal inviting a hearer's response. POWELL recognizes it as a question and answers it. Through the pragmatic interaction, *_supposing_* has acquired a procedural function that requires a hearer some action. In sum, the insubordinated *_supposing_* clause has acquired a new intersubjective constructional meaning by 1) incorporation of scenario meaning and 2) pragmatic strengthening of the interrogative environment. A new meaning arises out of use in context.

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Typological factors in the development of verbal and non-verbal spatial cognition: A comparison of French and English

Language-specific lexicalization patterns (satellite- vs. verb-framing) [1,2] have been shown to influence motion expression, particularly relative focus on Path and Manner in both adults and

children [3-5]. A debated question is whether they also influence non-verbal cognition [6, 7]. The present study addresses this question by comparing how three groups of English and French speakers (adults, children of 7 and 10 years, 16 per age in each language) perform three tasks involving different types of voluntary motion events:

(1) Categorization, non-verbal condition: Participants saw a target cartoon (e.g. a cat walking up a hill), then two variants that differed from it with respect to Manner or Path (walking down vs. jumping up), and had to choose which best matched the target, while simultaneously performing a syllable repetition task that prevented them from internally verbalizing the stimuli.

(2) Categorization, verbal condition: The target was a sentence presented orally (There's a cat walking up a hill), rather than a video (no interference task).

(3) Production: Participants described the target cartoons.

At all ages productions are language-specific, showing more frequent Manner expressions in English than in French. In categorization, however, participants focus more on Path than on Manner in all age/language groups. Manner focus also varies with condition (non-verbal > verbal), Manner salience (JUMP > WALK), and Path (IN/OUT > UP/DOWN). Language effects occur in the verbal condition, where speakers are more attentive to Manner distinctions in English (WALK vs. RUN) and to Path in French (particularly IN/OUT boundaries). From a developmental point of view, children are significantly more attentive to Manner than adults in French, but no age differences occur in English. These results indicate that language properties influence verbal but not non-verbal cognition from 7 years on, resulting in differential focus on semantic components depending on language, event types, and age.

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Network analysis of early word learning in monolingual and bilingual children

Infants learning words in a bilingual language environment face a number of difficulties different from monolingual environments that may alter the number and kinds of words learned early in life. The research described here investigates the developing semantic structure of the early bilingual children with respect to that of monolingual children. To do this, we use a dataset of 285 children between the ages of 16 and 48 months, approximately half of which are bilingual. The bilingual children all speak English in addition to one of nine other languages (e.g., Mandarin, French, German, and Arabic). Using this data, we examined three aspects of early word learning between monolingual and bilingual children: 1) the rate of word learning, 2) the statistical properties of words

that predict the first translational equivalents (words learned in both languages), and 3) the comparative structure of the English semantic network for monolingual and bilingual language learners. Our results show that despite an apparent lag in English learning among bilinguals, bilingual and monolingual language learners learn concept names at nearly identical rates. Furthermore, as predicted by previous work showing that monolinguals tend to learn first words that are more often produced as associates in free association norms, bilinguals show the same property for translational equivalents. That is, translational equivalents tend to be more often produced in free association tasks than non-translational equivalents. We also show that the statistical properties of the English networks differ between monolinguals and bilinguals, indicating that being an early English-Other bilingual influences the kind of words learned in English. Finally, we present a computational model of early word learning that demonstrates the similarities between bilingual and monolingual language learning.

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Language alignment in childhood autism: Real phenomenon or experimental artefact?

Verbal children with autistic spectrum disorders (ASD) can be poorly coordinated in conversation, a difficulty linked speculatively to deficits of theory of mind and social understanding. Recent evidence suggests, however, that on a referential communication task (RCT), ASD children spontaneously converge passive syntax with a conversational partner, and to the same degree as typically-developing children. The present study, comprising two parts, sought to replicate and extend these findings. In the first part, syntactic convergence was assessed in 17 ASD children and 17 mental age-matched controls, using a card game which primed either active-passive or dative alternation in spoken description. In the second part, the same children were recorded conversing with a peer. This task tested whether syntactic convergence occurs in naturalistic interactions, which are less structured, and where the focus may be on social affiliation rather than effective communication. The results of both parts of the study are discussed in terms of 'interactive alignment', a phenomenon where coordination in conversation is achieved through the simple, lower-level processes of priming, imitation, and repetition.

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The control senses revisited: The case of the prepositions *over* and *under*

This presentation aims to reveal that (1) the control senses of *over* and *under* show quite different characteristics, and (2) these different characteristics are derived from their spatial senses, which are in turn motivated by an up-down asymmetry along the vertical axis of the world.

- (i) He has [exerts] a strange power over his brother.
- (ii) She came [was] under the influence of Herbert Spencer.

Though both (i) and (ii) are traditionally classified into the control sense, our quantitative research based on the British National Corpus revealed that the two control senses behave quite differently—both grammatically and semantically. First, *over* usually refers to direct and active control of the controller, and tends to co-occur with transitive verbs as in (i). In contrast, *under* refers to a state in which the controlee is dominated, and tends to co-occur with less transitive verbs such as intransitive or copula verbs as in (ii). Second, *over* shows a direct relation to a specific form of power, while *under* is less specific in this regard. This is suggested by the grammatical function of the controller. In *over*, the controller, typically human or organization, obligatorily appears in the subject position, while it optionally appears in the *under* phrase with a genitive case. This presentation will then show that these different characteristics are motivated by the up-down asymmetry of the world. That is, due to gravity, the upper trajector (TR), human, tends to be in contact physically with the lower landmark (LM), floor, while the lower TR tends not to be in contact with the upper LM, ceiling. Consequently, the upper TR can exert its specific power directly to the lower LM, while the upper LM can only exert its power indirectly. The upper LM rather specifies a region under which the TR is controlled.

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I can't make you love me: A diachronic study of (im)purity in Chinese analytic causatives

This study addresses the issue of (im)purity of causative markers when speakers of Mandarin Chinese express the concepts pertinent to causation with analytic construction. Terasawa's (1985) description of English causative make notices there are two types, a "pure causative" and an "agentive causative", which seems a shared feature of analytic causatives in Chinese. But he also claims "the 'coercive' meaning does not develop until much later" with respect to the earliest example of the pure type. This leaves the questions for Chinese: 1) Can we also categorize Chinese analytic causative auxiliaries into exactly the same two types? Are there more or do they need amending to apply to Chinese situation? 2) Which type comes first? Which follows? How do they change over time? Do they evolve the way Terasawa predicts for English or do they behave differently? 3) When one type is chosen over another by language users, what other significant features, both grammatical and semantic, are there of the causative construction? Our bottom-up study plots correspondence analysis (Glynn 2013) and motion chart (Hilpert 2011) of an annotated data set consisting of two corpora, Sheffield Corpus of Chinese (Hu, et al 2007) and the UCLA Chinese Corpus (Tao and Xiao 2007), which spans from 1100 BC to 2005 AD. Three causatives shi, ling and jiao2 (out of seven in total) are attested in all time periods in the materials but for the purpose of comparison with Terasawa's study, we zoom in on shi, the translation equivalent of make for a detailed discussion. And it bears out that shi cannot be simply divided into "pure" or "agentive", but into "pure" or "impure", where the latter encompasses subcategories like commanding or enabling. Motion charts allow us to answer the second question in a vivid way to show the developing story of Chinese is opposite to English in this case. We also visualize periodized distributions of causative verbs among the grammatical and semantic features to identify their distinctive usage patterns.

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A framed-based constructional study of the polysemic *dài* in Mandarin

The present paper probes into the polysemic nature of the verb *Dài*, 'to bring/carry' in Mandarin. The verb *Dài* bears at least seven meaning imports, pertaining to different verbal meanings in English. Integrating Frame Semantic (Fillmore and Atkins 1992) and Construction Grammar (Goldberg 1995, 2010), this study aims to explore the semantic-to-syntactic correlations between the different senses underlining the lexicalization patterns of *Dài*. It is argued that *Dài* may profile different semantic frames with distinct frame-specific roles and morphosyntactic realizations. The basic sense of *Dài* depicts a caused motion event in which an agent-Mover takes a Co-Mover/Moved Entity to undergo a locational change (e.g., *tā mén dài tā/qián dào xué xiào* "They took them/brought the money to school."). Nevertheless, due to conceptual transfer, *Dài* may profile the stative relation of co-existence without the causal movement (e.g., *tā shēn shàng dài zhe hù zhào* "He brought the passport with him.") or profile the dynamic agenthood as in leading and initiating an activity (e.g., *wǒ dài tā huán yóu shì jiè* "I took him to travel around the world."). In light of the semantic profiles of the various meanings, the polysemous nature of *Dài* is further analyzed as a multi-framed, cross-categorial entity that manifests the interrelationship and inheritance of a group of related sense domains. The multi-frame analysis is substantiated with a detailed corpus analysis of collostructional variations. It follows the usage-based lexical constructional approach (Boas 2003b) in delimiting semantically salient features pertaining to lexical frames with a constructional account that captures the form-meaning mapping correlations. The study provides a clear case study that demonstrates the close interaction between semantics and syntax, lexicon and construction and ultimately, cognition and language.

Patricia O. Iagallo

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The conceptualization of TIME and semantic description of utterances in Portuguese (Brazil) involving the notion of time

The concern in studying the notion of time, linguistically, is very old. However, traditional grammar has not satisfactorily explained this phenomenon yet. For example, how to semantically explain that "Nós passamos do prazo" (in English: We passed the deadline) means that we are late, not early? The aim of this work is to show that it's possible to describe the semantic structure of utterances involving the notion of time, with a cognitive approach. For this, we have: (1) collected and analyzed utterances in Brazilian Portuguese which contain the idea of time; (2) applied Fillmore's notion of frames in utterances containing verbs of motion; (3) used the conventional imagery approach of Cognitive Grammar of Langacker (1987; 1991); (4) compared TIME and image schemes (Johnson,

1987) that involve conceptualization of SPACE (Zlatev, 2007); (5) illustrated TIME as conceptual metaphor (Lakoff; Johnson, 1980). The main results found were: (1) the conceptualization of time derives from the metaphor TIME IS SPACE (MOBILE); (2) the image schemes of TIME may be the same for SPACE; (3) when the utterance involves verbs of motion, its understanding requires that we take into account vantage point (Langacker) of the utterer; (4) the well-known Moving Ego mapping (e.g., Evans, 2004) is a metaphorical derivation of the known Moving Time mapping. These results show that it is possible to describe a single base conceptualization of TIME, and show that more imagistic descriptions are needed to explain the different perspectives of the meaning of time process. The object of our study, TIME, due to its complexity and abstraction, nicely illustrates how the cognitive approach assists in semantics studies.

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Morphological awareness in poor comprehenders: Clues to the source of their difficulties

Morphological awareness refers to children's awareness of the morphemic structure of words and their ability to reflect on and manipulate that structure. Previous work has demonstrated a relationship between morphological awareness and text comprehension: critically, children with poor reading comprehension in the presence of age-appropriate word reading skills perform poorly on orally presented measures of morphological awareness (Tong, Deacon, Kirby, Cain, & Parrila, 2011). However, an examination of that study and more recent work (Tong, Deacon, & Cain, 2014) indicates that the strength of the relationship might be determined by the type of morphology tested (inflectional vs derivational), the task used to assess ability (analogy vs cloze task), or the age of the children being assessed. We report a study to investigate the factors that influence the relationship between morphological awareness and reading comprehension by comparing good and poor comprehenders aged 6 to 7, 9 to 10, and 12 to 13 years of age. All children completed tasks to assess comprehension and production of novel compound words, inflections, and derivations, as well as measures of reading comprehension, word reading, vocabulary, phonological processing, and cognitive ability. We will report analyses to elucidate the basis for poor comprehenders' weaknesses with morphology. Our analyses will address the following research questions: 1) Are poor comprehenders' weaknesses on measures of morphological awareness constant across development or apparent only in older children? 2) Do poor comprehenders' weaknesses on measures of morphological awareness extend across different aspects of morphology or are only specific aspects of morphology affected? 3) Are any weaknesses on measures of morphological awareness independent of vocabulary knowledge and/or phonological processing ability? This work will add to our theoretical understanding of the relation between morphology and text comprehension and the reasons for comprehension failure.

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From question gesture to question sign: Grammaticalized/pragmaticalized connectives in Catalan Sign Language

Stemming from the assumption that language structure and use is intimately related to and modeled by interaction (Enfield 2008; Zlatev et al. 2008), the issue this paper addresses is: how is the basic interactional pattern of question-answer reflected in grammatical and textual structure? Research across signed language shows that the communicative questioning gesture used in the surrounding spoken community has grammaticalized into a polar question construction (Janzen 2012). This construction is often further grammaticalized for non-seeking functions. Janzen (1999) suggests the following grammaticalization path for ASL: yes/no questions > topics > connectives > conditionals > temporal reference shift. We will study grammaticalized question-answer pairs for a connective function, an issue barely addressed in the literature. Our focus will be Catalan Sign Language (LSC), an understudied language. Our research questions are: (a) is the question-answer pattern used for connective functions?; (b) are there formal differences in the non-manual marking of connectives (vs. topics, conditionals and focus)?; and (c) what is the interaction between their manual and non-manual marking? Our preliminary findings show that the answer-question pattern is grammaticalized in LSC for topics, conditionals, focus as well as connectives:

- (1) [BUT]raise brow THERE.BE 1 SIDE FAILURE /[FAILURE]furrowed brow +head tilt backward OF ENVIROMENT COMUNICACION IX BE

Lit. 'But there is a negative side. Which negative side? The one concerning mass media.'

'But there is a negative side and that is the one concerning mass media.'

This connective function links consecutives, finals, and causals at the sentence and text level, becoming therefore a case of pragmaticalization, with the non-manual component (prosody) as obligatory and the manual one (lexical/functional) as optional. Our data are drawn from a vast textual corpus from one native signer: expository texts, semi-structured interviews, and elicited narratives.

Katy Jones

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The interpretation of identifiable indefinites: Evidence from readers

Conventionally, the definite article is recognised as being used to refer to entities that are 'known', while the indefinite article is for entities which are not assumed to be identifiable to the addressee.

However, some indefinite expressions appear not to follow this principle. In [1], it is possible to understand a man who... as a newly introduced referent or 'type'. But once it is seen in context, where 19 mentions of this particular man (Andy Coulson) have already been made, it becomes clear that the indefinite article is signalling something different.

[1] [...] a man who achieved the rare feat of becoming a pivotal member of the Cameron inner circle in the space of just a few months in the summer and autumn of 2007 (Watt 2012)

The purpose of this paper is to provide empirical evidence from two reading experiments about how readers interpret the expression type A(n)+NOUN+RESTRICTIVE RELATIVE CLAUSE in the context of British English journalistic opinion writing . That is, whether readers access an existing representation of the fully-identified entity or whether they create a new representation based solely on the conceptual information in the expression. The results suggest that there is a 'scale of specificity', depending on the amount and detail of conceptual information in the restrictive relative clause, which leads readers to either a referring or non-referring interpretation of the A(n)+N+RRC expression. I also discuss the results of the reader experiments alongside cognitive models of referring (e.g. Accessibility Theory (Ariel 1990) and the Givenness Hierarchy (Gundel, Hedberg and Zacharski 1993)) and suggest that while they can partially explain the use of the A(n)+N+RRC expression-type, they are not able to account entirely for the variation in interpretation resulting from the differences in specificity of the expressions.

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Constructional effects on prepositional antonymy in Croatian and Danish

Much of the research dealing with the semantics of prepositions has focused on their intralexical, i.e. polysemous structures (e.g. Lakoff 1987, Taylor 1993, Šarić 2008). As a consequence, their interlexical semantic relations, such as antonymy, were neglected as a focus of research. On the other hand, most approaches to antonymy focus on the word classes of adjectives and nouns and thus do not investigate prepositional antonymy (see Lyons 1977, Cruse 1986, Jones et al 2012). Therefore the focus of the present research is to provide a systematic description of antonymy relations of prepositions in Croatian and Danish, focusing on directional and locational opposites. In order to systematically compare antonymy relations between the two languages and explore possible regularities, we discuss the same semantic content prototypically being encoded by the 'preposition + case' in Croatian (iz:Gen 'out of') and 'adverb + preposition' construction in Danish (ud af 'out of', cf. English out of). With respect to identifying antonymy relations we apply the methods of substitutability and co-occurrence of antonyms (Justeson and Katz 1991, Jones et al. 2012), developed primarily for adjective antonyms and evaluate their application to prepositional data. Extensive corpus analysis in both languages aims to reveal the specific semantic properties and constructional patterns of antonymy pairs, particularly the relation of antonymy to: a) the syntactic-

semantic properties of constructions (e.g. Source-Goal opposites in motion constructions) and b) the conceptual content profiled by antonymy pairs (Cro. u:Acc – iz:Gen; Da. ind i - ud af 'into – out of' – container / Cro. u:Loc – izvan:Gen 'in – outside', Da. hjemme hos - ude hos 'home - out' – centre-periphery). Antonymy is thus regarded as a conceptual and constructional phenomenon which can be used to provide new insight into prepositional semantics and expand our knowledge of the organization of lexical relations and their interaction within language use.

Ronald Kemsies

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Teaching polysemous nouns in the EFL classroom: A CL-based approach

Teaching polysemous nouns undoubtedly represents a huge challenge. EFL coursebooks as well as teachers frequently lack a coherent methodological approach regarding the didactical incorporation of polysemous lexical items. As a result, mere rote-learning of related word meanings has, by and large, remained the dominant method of instruction in this context. In cognitive semantics polysemous lexical items are generally understood as radial categories exhibiting a number of metaphorical, metonymical as well as image-schematic meaning extensions. I advocate the view that deconstructing these chaining processes and their related frames, and thus devising a CL-based method of instruction is conducive to learning and teaching polysemous nouns. In this respect, I hypothesize that the very nature of conceptual meaning extensions as well as inherent frame structures will lean towards concrete didactical scenarios that are, in return, capable of creating, stimulating or sustainably rewiring cognitive mechanisms in the learners' conceptual systems. This method is going to be tested in a forthcoming study involving EFL learners in Austria on the basis of a limited set of polysemous high-frequency nouns. Subsequent to pre-tests as well as an instructional phase I will compare my findings to the results of a control group by means of post-tests and delayed post-tests in order to find out whether this CL-based method proves to be a valuable addition to EFL methodology. A teaching approach predicated on cognitive semantics may not only yield better results concerning the retention and usage of polysemous nouns but also point into new directions with regard to EFL methodology as well as coursebook design.

Ahrim Kim

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From conditional to information management: Grammaticalization of conditional marker *-ketun* 'if' into an utterance-final particle in spoken Korean

-Ketun is one of many connective endings in Korean which link two clauses in a sentence. Specifically, *-ketun* is known to be a conditional connective ending, since the two clauses which it

connects are in a conditional relationship. The following invented example illustrates *-ketun*'s use as a conditional connective ending.

- (1) ney-ka sungcin-ul ha-ketun phathi-lul yel-ca.
you-NOM promotion-ACC do-COND party-ACC open-HORT
'If you get promoted, let's have a party.'

In (1), the clause which *-ketun* is suffixed to serves as the condition of the clause following *-ketun*, and due to the conditional relationship of these two clauses, *-ketun* can be translated in English as 'if' or 'when'. However, in recent spoken Korean, *-ketun* functions as an utterance-final particle, which marks the end of an utterance rather than connecting two clauses together. (2) is such a case.

- (2) (Context: P2 has just told P1 that he commuted to campus by train during his freshmen year in college.)
1 P1: wuay kicha-lwu hay-ss-e?
why train-INSTR do-ANT-INDC
'Why did you commute by train?'
2 P2: na-n sewul-yek-i te kakkap-ketun.
I-TOP Seoul-train.station-NOM more close-ketun
'The Seoul train station is closer to my place-ketun.'

(2) clearly shows that *-ketun* is neither connecting two clauses together, nor conveying a conditional meaning in spoken Korean. The goal of this study is to investigate the grammaticalization of the conditional connective ending *-ketun* 'if/when' into an utterance-final particle in spoken Korean. By examining naturally occurred spontaneous conversation data from Sejong 21st Century Corpus, this present study proposes that the utterance-final particle *-ketun* has an information managing function in discourse, which is 'to construe a (pragmatic) assertion as a (pragmatic) presupposition (cf. Lambrecht 1996)'. I argue that *-ketun*'s information managing function in spoken Korean derived from its function as a conditional connective ending where it managed the information structure at the sentential level.

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Embodiment in indirect naming

The research deals with embodied cognition in indirect naming, viewed as a dynamic process that takes place in discourse. 1800 indirect names and nominal constructions used in modern English and Russian fiction texts are selected for the analysis. I assume that the direct and indirect status of a

linguistic expression is determined by the way it construes its referent in the text: whether it identifies the referent (for direct identifying names), characterizes it (for direct attributive names) or both (for indirect names). Characterizing and identifying referential functions of indirect names help to explain why a referent got its indirect name in a certain context. The analysis has also revealed the importance of embodied cognition in indirect naming. I examine the focal elements of the referent construal in indirect names to show the complexity of embodiment models underlying the phenomenon of indirect naming in texts. For example, in the sentence Doctor Saavedra's book proved a good sedative. (G.Green), a good sedative functions as an indirect expression in relevance to the direct name book. Here the embodiment model of the referent construal comprises various perceptual and inferential modi: perception of shape, substance and taste; as well as positive evaluation; knowledge and belief modi. In general both concrete and abstract characteristics of the referent can be embodied. One physical characteristics can be embodied by various perceptual centers (e.g. liquidity as physical property can be embodied by tactile centre (feet, fingers, etc.), visual or aural centre) which may further result in different evaluation modi. The most frequent embodiment models involve visual and tactile (hands, fingers) perception modi.

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Vocabulary instruction in second language acquisition: The importance of iconic gestures and intention to learn

The learning of vocabulary during second language acquisition appears to be facilitated by associating words with gestures (Allen, 1995; Kelly, McDevitt, & Esch, 2009; Tellier, 2008). The goals of this study were to replicate the enhanced retention of new vocabulary words when paired with a congruent gesture using instructional and testing procedures more consistent with the current pedagogical practices used in American universities, and to examine learning when gestures were inconsistent with the implied meaning of the word (i.e., an "incongruent gesture"). A total of 116 students enrolled in beginning Spanish served as participants. They were randomly assigned to one of four groups learning new vocabulary words: gestures congruent with the meaning of the word; congruent gestures with instructions to actively use the gestures to learn the words; incongruent iconic gestures; no gestures (control). All participants learned 30 new vocabulary words (10 nouns, 10 verbs, 10 adjectives). Their memory for the words' meanings was assessed four times during the semester using a cued-recall quiz: immediately following the treatment, one week later, three weeks later, and at the end of the semester. Results indicated that the groups differed in memory for the vocabulary words immediately following treatment, ($F(3, 112) = 3.26, p = .02$), and one week later, ($F(3, 112) = 7.10, p < .001$). Post-hoc analyses revealed that the congruent gesture group without instructions recalled significantly more words immediately following treatment than the incongruent gesture group, ($p = .05$), and the congruent gesture with instructions group recalled significantly more words at one week than the congruent gesture group ($p = .047$), the incongruent

gesture group ($p = .002$), and the control group ($p = .001$). Findings are discussed in terms of relational processing (Hunt & McDaniel, 1993), and the importance of semantic organization in long-term memory (Tulving, 1983)

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University of Tartu

How good is good? Evaluating the performance of probabilistic statistical classification models for predicting constructional choices

Recent work in usage-based tradition has shown that frequency-derived conditional probabilities fare better than other type of frequency data in predicting the acceptability judgements and choices made by native speakers (Divjak 2013, Divjak & Arppe 2013, Divjak et al. 2013, Bresnan 2007, Bresnan & Ford 2010). The present paper continues this line of research and discusses the results of a multivariate corpus analysis and a series of experiments of two near-synonymous Estonian constructions, the adessive case and the adposition peal 'on' construction. A multivariate corpus analysis was carried out with 900 examples from a corpus of present-day written Estonian; the data were analysed using binary logistic regression. The minimal adequate model fitted to the data has four morphosyntactic and two semantic explanatory variables and a classification accuracy of 70%. A pertinent question to ask is whether this is a good enough result. One potential solution is to compare the corpus-based model to native speakers (Divjak et al. 2013). To this end, a series of experiments were conducted. In the experiment reported in this talk, the task of the native speakers was similar to that of the corpus-based classification model. Participants were presented with 30 attested sentences in which the original construction was replaced with a blank. They were asked to choose which of the two constructions fits the context best. It is hypothesised that the proportion of choices made by the native speakers mirror the probabilities estimated by the statistical model. The results show that a corpus-based probabilistic model performs at an equal level to human beings. Participants as a group had a classification accuracy around 70%. The finding that the "goodness" of a corpus-based statistical model is comparable to human beings supports the claim that corpus-based models allow for a cognitively realistic language description. Neither language users nor statistical models are able to predict with a 100%-accuracy –language is never, ever, ever random (Kilgariff 2005), but it is also rarely, if ever, fully predictable (Divjak et al. 2013).

Kasper Kok

VU University Amsterdam

Gestures as symbolic units in Cognitive Grammar: is it really that simple?

Over recent years, several scholars have explored the accommodation of co-speech gesture in theories of grammar (e.g. Cienki, 2012; Muntigl, 2004). Cognitive Grammar (CG; e.g. Langacker, 1987, 2008) appears to be a fruitful candidate framework for this enterprise, since it does not

inherently pose restrictions on what kind of behaviors can be grammatical. Rather, from a CG perspective, grammar can encompass co-speech gesture by virtue of the fact that the usage events from which grammatical structures are extracted are multimodal by nature (Cienki, 2012; in press; Langacker, 2001; 2008; Wilcox, 2004; Wilcox & Xavier, 2013). Though this is a valid point, I argue here that extending Cognitive Grammar to incorporate co-speech gesture is not straightforward on all counts. I identify a number of theoretical problems and challenges that this endeavor faces. Most importantly, a grammar based on symbolic units enforces a rather static, categorical view on gesture. In contrast, gestures are dynamic modes of expression which can encode meaning in continuous, analogue ways. Treating gestures in terms of delineable units or patterns does not do justice to the fact that gestural ‘meaning’ is contingent on its temporal-kinetic structure and the temporal characteristics of its coordination with speech. A second challenge derives from the immense multifunctionality of the gestural medium. Unlike speech, gestures do not comprise clearly isolatable segmental units (phonemes, morphemes, words) but rather “present meaning complexes ‘globally’” (McNeill, 1992: 19). This may have profound consequences for what (cognitive) grammatical analysis of multimodal data entails. In addition to a theoretical discussion of these problems and their implications for the CG framework, I contend that large-scale quantitative corpus analysis can provide potential solutions. On the basis of a heavily annotated video corpus (Lücking et al. 2012), I propose a more process-oriented, probabilistic way of treating multimodality from a cognitive grammatical point of view.

Anu Koskela

De Montfort University

When kittens are not cats: Conventionality, semantic distinctiveness and lexical usage patterns

This paper examines how conventionality and semantic factors may motivate lexical usage patterns by considering lexemes (here called ‘A-terms’) whose meaning may either include or contrast with the meaning of another (‘B-term’) (leading to autohyponymy - Horn, 1984). Such A/B-pairs include shoe/boot, dog/bitch, cat/kitten, rectangle/square and beer/lager. The focus here is on contexts where A/B-pairs are contrasted, i.e., where A-terms are interpreted more narrowly. Different contexts involve varying degrees of contrast: while simple coordination (e.g. shoes and boots) expresses only a weak contrast between the coordinands, constructions such as binary coordination (both cats and kittens) and negation (rectangles, not squares) are more strongly contrastive (e.g. Jones, 2002). A/B pairs vary with respect to how strongly they can be contrasted (Rohdenburg, 1985). Their potential to occur in the most contrastive contexts may depend on the conventionality of the A-term’s narrower reading (Haspelmath, 2006) or on its semantic distinctiveness regardless of its conventionality (Rohdenburg, 1985). The ‘male canine’ reading of dog is here held to be more distinctive because it stands in binary opposition to bitch, whereas the narrower reading of shoe is less distinctive as the shoe/boot contrast is fuzzier and draws on a prototypical/marginal contrast. Support for the view that semantic distinctiveness influences usage patterns independently from conventionality was found by searching the GloWbE corpus (Davies, 2013) for co-occurrences (within ± 9 words) of 16 pairs of A/B-terms. The co-occurrence contexts were coded for the A-term’s

reading (broader [including B]/narrower [contrasting with B]) and for the context type involved. The frequency of the narrower uses of each A-term compared to its broader uses in the data was taken as an indirect measure of the narrower readings' conventionality. Analysis of the context types showed that more distinctive readings generally occurred significantly more frequently in more contrastive contexts, while many more conventionalised readings were in fact significantly less likely to occur in the more contrastive contexts.

Iksso Kwon

Hankuk University of Foreign Studies

Iconicity, conceptual metaphor, and military hand signals

This paper explores embodied semantics of military hand signals, focusing on the significant role of iconicity and conceptual metaphor (Lakoff and Johnson 1980) in the construal of them. Following Kendon's continuum that consists of five types of gestures including gesticulation, speech-linked gestures, emblems, pantomime, and sign language (McNeil 2005:5), I argue that military hand signals belongs to an in-between category of emblems and sign language. This alternative type of sign language (Kendon 2004:284) involves signers' construal process that relies on iconic and metaphoric relationship between the thing signed and the gesture (Cienki 1998, Sweetser 2007).

I specifically look into a few intriguing hand signal examples excerpted from US Army ROTC field manual and non-fiction military movie clips; this paper provides systematic explanations of how iconicity and metaphor guide interlocutors to grasp meanings conveyed by the non-verbal modalities. The signer's fingers that point downward iconically represent multiple legs of soldiers on the ground. The most salient portion that constitutes the concept infantry is the way the soldiers move, which is metonymically represented by legs. This salient portion is represented in terms of the signer's fingers as shown in the figure. The construal of the gesture in Figure 2 involves conceptual metaphor LESS IS DOWN (Lakoff and Johnson 1980). The signer's downward dislocation of his arm, representing verticality in the source domain, is mapped onto less velocity of the focal moving object in the target domain. This alternative sign language is distinguished from other types of gestures because it is not signed simultaneously with verbal modality. Military hand signals, however, still make great examples that help view the important role of iconicity and conceptual metaphors in forming and construing conventionalized gestures.

Jolanta Łacka-Badura

University of Economics, Katowice

Metaphorical conceptualisation of SUCCESS in American success books, aphorisms and quotes

SUCCESS is one of the key concepts underlying the nature of American culture. The myth of success, shaping the lifestyles of millions of people not only within the US, but also in other parts of the

globe, is revealed through language in a variety of ways (see e.g. Kövecses 2000; Langlotz, 2006). Given the unchanging popularity of various sorts of guide books and ‘words of wisdom’ collections in America and elsewhere, it seems both interesting and worthwhile to investigate how SUCCESS is conceptualised metaphorically in popular American success books, aphorisms and quotes. The present paper is based on an analysis of a corpus comprising over 600 utterances in which the lexical entry SUCCESS is regarded as constituting part of a metaphorical expression (Pragglejaz Group, 2007). The utterances have been extracted from the initial corpus of over 2,300 pages of success guide books, as well as 150 success aphorisms and quotes by famous Americans. The study seeks to investigate two aspects of this conceptualisation. In the first instance, it examines which metaphorical source domains, as understood within the framework of Conceptual Metaphor Theory (Lakoff and Johnson, 1980, 1999), prove to be most productive and influential. Secondly, in line with the frequently expressed views that the significance of conceptual metaphor as an explanatory construct is sometimes overstated in cognitive linguistic research (e.g. Evans, 2010, 2013; Gibbs and Perlman, 2006), the paper attempts to analyse the linguistic metaphors which appear to be motivated in ways that are, at least in part, independent of well-established conceptual mappings, with particular emphasis on the resemblance-based and image metaphors associated with the predicate nominative forms ‘X is a Y’ (cf. Grady, 1999; Evans, 2013). Beside revealing the most productive metaphorical source domains in the material studied, the findings seem to confirm that the theoretical construct of conceptual metaphor does not provide an exhaustive explanation for the metaphorical conceptualisation of SUCCESS.

Virginie Lethier

Université de Franche-Comté

Marion Bendinelli

Université de Franche-Comté

Can metaphors be semi-automatically identified? The example of metaphors in a corpus of French newspapers

The paper studies the use of verb-based and noun-based metaphors in a large corpus of French daily newspapers (both regional and national) among which Le Monde, Ouest France and La Croix. The aim is to identify some regular lexical and syntactic patterns which would trigger the cognitive mechanisms underlying the interpretation of metaphoric uses. Our approach is both qualitative and quantitative, couched in the frameworks of Textometry, a corpus-based discourse analysis which bears close links with Text Linguistics (Adam 2011, Viprey 2009). Following Lakoff (1993), a consensual definition of metaphors consists in the use of a given word or expression in a domain where one would not expect to find it: the metaphoric interpretation emerges from the difference between the (expected) source domain and the (unexpected) target domain. In our perspective, considering source and target domains as predefined domains falls into a questionable methodological issue. So, we rather hypothesize that they arise from speech practices, and thus can be examined within corpora. Therefore, our study scrutinizes and compares the use of lexical items (verbs, nouns, noun complements and lexicalized semantic isotopies) in a corpus of media discourse

(labelled corpus of study) with their use in a larger and genre-free corpus which we consider as representative of French (corpus of reference). Each corpus is morpho-syntactically tagged and examined with the software TXM. This software offers a range of tools (repeated sequences, collocations and cooccurrence networks) that statistically determine when a given lexical item moves away from its 'expected' domains. Such a method also helps us determine the high lexical frequencies, i.e., which items are more frequently used in our corpus of study, so helping us identify metaphors and their semantic and cognitive domains, according to newspaper articles and their different columns. All in all, our paper aims at answering to the following two questions: can metaphors be automatically or semi-automatically discovered? How are metaphors used in media discourse and are there some dominant semantic domains depending on columns and speech genres? Besides, our goal is to provide researchers with a tool to (semi-)automatically spot metaphors and to offer a computer-based discourse analysis of French film critics.

Chung Hong Leung

Chinese University of Hong Kong

Metaphor and metonymy in English and Cantonese idioms: A cross-linguistic analysis on L1-L2 idiom processing

Previous studies in Cognitive Linguistics suggest that metaphor and metonymy are cognitive mechanisms which are psychologically real and which exist as tacit knowledge in the learners' conceptual system. It is also due to their existence in the human mind that their revelation, as shown by empirical Applied Cognitive Linguistics studies, provides motivation for idioms. These experiments on idiom processing were mainly targeted on L1 speakers. It is essential, from an L2 perspective, to conduct similar experiments on L2 learners, thus examining the psychological reality of metaphor and metonymy in the L2 learners' tacit knowledge, and the degree to which L2 learners apply their L1 conceptual knowledge to understanding L2 idioms. The present study was a cross-linguistic analysis of L1-L2 idiom processing and adopted a series of think-aloud experiments which targeted on three groups of participants: 1) native English speakers processing English idioms; 2) native Cantonese speakers processing Cantonese idioms; and 3) Cantonese L2 learners of English processing English idioms. There were ten participants in each group. Twenty-five idioms coming from the source domains BODY, COLOUR and FLAVOUR were chosen from each language. Each participant was presented the twenty-five English/Cantonese idioms and was asked to respond to six probe questions, each of which was designed to elicit the participant's mental images and processing details for each idiom. After analyzing and cross-examining the responses given by the three groups of participants, not only did we find the existence of metaphor and metonymy in the tacit knowledge of all three groups of participants, which conforms to results of previous studies, but we also found striking convergences and divergences in the metaphoric and metonymic motivation of idioms in the two languages, and a significant impact of L1 concepts on L2 idiom processing. All these cross-linguistic similarities and differences will be discussed at this presentation.

Elena Lieven

University of Manchester

Claire Noble

University of Manchester

Ben Ambridge

University of Liverpool

Knowledge of construction semantics: Evidence from adults and children

A central assumption of construction-based theories of grammar (Lakoff, 1987; Langacker, 1987; Fillmore, Kay & O'Connor, 1988; Goldberg, 1995; 2006; Croft, 2001; Dabrowska, 2004; Michaelis, 2012) is that grammatical constructions – ordered sequences of abstract slots and/or concrete lexical material – have meaning in and of themselves. Thus, constructions contribute meaning above and beyond that contributed by the individual lexical items that make up an utterance. This claim is explicitly denied by traditional linguistic approaches (i.e., minimalism and its predecessors; Chomsky, 1965; 1981; 1986; 1995), which view constructions as nothing more than “taxonomic epiphenomena” (Chomsky, 1989:43). The aim of the present study was to test the claim that constructions make an independent contribution to meaning, focusing on a particularly core example: the (English) transitive construction. Adults and children (aged 3;1-3;11) were presented with ungrammatical NVN uses of intransitive-only verbs (e.g., *Bob laughed Wendy) and asked – by means of a forced-choice pointing task with cartoon animations - to select either a causal CONSTRUCTION-MEANING interpretation (e.g., ‘Bob MADE Wendy laugh’) or a non-causal SENTENCE-REPAIR interpretation (e.g., ‘Bob laughed AT Wendy’). Both age groups chose causal CONSTRUCTION-MEANING interpretations on more than 80% of trials, regardless of (a) verb frequency and (b) the construction used for grammatical control/filler trials (transitive - e.g., ‘Bob moved Wendy’ – or intransitive – e.g., ‘Wendy moved’). In further support of the hypothesis that constructions bear independent meanings, a second study (with a new group of 3-4 year olds) found that NV sequences (e.g., ‘Wendy rolled’) were overwhelmingly (87%) associated with inchoative semantics (e.g., Wendy rolled [herself]) – the core meaning of the intransitive construction - and almost never interpreted as utterances with omitted understood objects (e.g., Wendy rolled [someone else]). These findings suggest not only that constructions have meanings, but that these meanings can override verb meanings when the two are in conflict.

Jeannette Littlemore

University of Birmingham

Satomi Arizono

Nagoya Gakuin University

Alice May

University of Birmingham

The comprehension of metonymy by Japanese learners of English

In this two-part study, we explored metonymy comprehension in Japanese learners of English. In the first part of the study, twenty Japanese students, all of whom were conducting postgraduate study in the UK were asked to explain the meanings of twenty expressions instantiating a range of metonymy types. In line with Littlemore et al's (2011) findings for metaphor, we identified a number of comprehension problems, including: the missing or misuse of contextual clues; reluctance to 'make a guess'; positive and negative interference from Japanese; 'overspecification' (where the students over-interpreted the meaning of the metonymy and provided too much information); and 'underspecification', where they under-interpreted the meaning of the metonymy, and did not provide enough information). In addition, students tended to interpret metonymies as if they were metaphors and carried out unnecessary metonymic chaining. In the second part of the study, we focussed on the functions performed by metonymy. The participants were 22 intermediate-to-advanced English-speaking Japanese participants, all of whom were located in Japan. They were asked to interpret a set of twenty metonymies, each of which was presented in context. The metonymies were chosen because they served functions such as humour, irony, euphemism and dysphemism. Comprehension problems included: the rejection of possible meaning on account of perceptual 'strangeness'; over- and under-specification; a tendency to become distracted by contextual features; and positive and negative interference from Japanese culture. Metonymies serving complex functions such as humour, irony and hyperbole were significantly more difficult to understand than ones that served more 'straightforward' functions, such as hyperbole and positive evaluation. Comprehension difficulties were related to the extent to which the examples violated the cognitive principles underlying 'typical' vehicle selection (Radden and Kövecses, 1999).

Li Liu

Hong Kong Institute of Education

Acquisition of semi-fixed idiomatic expressions in Chinese

Chinese four-syllabic idiomatic expressions are traditionally called Chengyu and have long been regarded as fixed lexical units. Yet Chengyu, as English idioms, also varies along a continuum of idiomaticity and schematicity (Fillmore et al, 1988; Taylor, 2002). Semi-fixed templates with open slots such as bu4-A-bu4-B (not-A-not-B), qian1-A-wan4-B (hundred-A-thousand-B), A-yan2-B-yu3 (A-words-B-utterances) abound in Chengyu formation and they are selectively productive in use (Zhang,

2002). How children acquire the restrictions on the productivity of schematic Chengyu and how they work out the ultimate interpretation of an expression raises an interesting issue in language acquisition. The study reported in this paper investigated on children's developmental trajectory on the learning of three related schematic constructions -- XAXB, XAYB and AXBY, and the factors that influence the learning process. Distributional analysis revealed that selection of A, B in the open slots is constrained by structural, semantic as well as pragmatic requirements. The interpretations of a schematic instance crucially depend on proper identification of A, B features and the internal semantic relations inherent in each instance: coordinate or subordinate. Distributional statistics showed that some AB lexical chunks that canonically resist separation in use can nevertheless be separately inserted in the slots and form legitimate instantiations. This type is found to be strongly associated with high token frequency. A series of experiments were thus conducted to test the psychological reality of four factors in learning: input frequency, complexity, internal semantic relation and AB chunk effect with four groups of participants (children of 8, 11, 13 year-old and adults). Acceptability judgments, sentence-making tasks, and novel A, B tests were used as instruments. Results showed general supports for effect of these factors, though not necessarily in the same way at different developmental stages. Results also suggested that acquisition of these schematic constructions is a gradual process from item-based learning to more abstract rule-forming. These results are discussed in terms of usage-based language learning theory (Tomasello, 2003) and the salient linguistic features of Chinese schematic Chengyu.

Reyes Llopis-Garcia

Columbia University

The metaphor of space in Spanish prepositions: Towards a roadmap for teaching

Despite increasing efforts to approach grammar from a more communicative standpoint, and a less rule-and-exception approach, prepositions are still missed as being meaningful at large. Traditionally categorized as "function words", or words with little semantic value used to connect parts of sentences, there is a world of meaning to be found in prepositions if they are approached from a cognitive perspective. Taking space as their prototypical value, and working with radially for meaning extension, this paper draws on the spatial foundations of language, of embodiment as primary tool for communication, and the advantages of metaphor in the teaching of prepositions in the Spanish as a Foreign Language classroom. Prepositions in Spanish help frame motion events and are responsible for indicating trajectories of motion, not only for the literal expression of space, but also in the metaphorical construction of the relationships between ideas in the discourse. A diagram of some of the main prepositions in Spanish will be presented (*por, para, de, en, a*) showing what their prototype is, and the most common extensions for understanding its metaphorical uses. A comprehensive overview of current approaches to the teaching of prepositions will be shown, along with a discussion of the cognitive alternative and its advantages for the L2 learners: systemic and motivated learning, less arbitrariness in rule presentation, common ground with English prepositions, or Gestalt-like understanding.

Chiarung Lu

National Taiwan University

Metaphor as a prototypical category

This study aims to probe into the long lasting issue regarding the nature of metaphor. Metaphor is usually defined as mappings between two domains. Although the definition of domain still remains rather vague, many kinds of phenomena have been well recognized in the previous literature, including primary metaphor, synesthetic metaphor, ontological metaphor, personification, image schematic metaphor, image metaphor, structural metaphor, conceptual metaphor, etc. This study takes the approach proposed by Peirsman & Geeraerts (2006) using prototype theory to analyze metaphor. After a careful scrutiny, we identified three dimensions operating on the use of metaphor, i.e., the cause of metaphor, the structure of metaphor, and the time of acquisition. Along with these lines, some key features can be further identified such as early acquisition, correlation, similarity, simplicity, dynamicity, and conventionality. Based on this approach, like metonymy discussed in Peirsman & Geeraerts (2006), we figure out that metaphor, sometimes used as a polysemous word, has a prototypical structure, too. This three-dimensional conceptual map of metaphor accounts for the phenomenon of metaphonymy which can be regarded as a fuzzy case lying in between similarity and correlation, and also accounts for the finding proposed in Kövecses (2013) that in the case of primary metaphor, metonymy plays a role in it. Our finding helps clarify the long lasting debate on the relationship between metaphor and metonymy.

Karin Madlener

University of Basel

Explicit and implicit incidental learning: How input frequency distributions influence learning mode and learning success in instructed second language acquisition

We report data from a classroom study targeting incidental construction learning. Over two weeks, groups of adult learners of German as a second language were exposed to listening comprehension input which was massively enriched for the target construction sein 'be' + present participle. The groups' inputs differed with respect to the target construction's type frequency and type-token ratio. We discuss the question of how frequency distributions - namely skewed input, where a few types account for the majority of the construction's tokens (Ellis, 2009) - impact learning mode and learning success. There are three main observations: Firstly, frequency distributions influence learning mode. Learners exposed to unobtrusively skewed input with substantial type frequency (25 types) display successful implicit incidental grammar learning. By contrast, learners exposed to more obtrusive frequency distributions such as skewed low type frequency input (9 types) show a strong trend for explicit incidental learning under purely implicit instructional conditions. Secondly, the success of such explicit incidental learning depends on the learners' prior target knowledge. Skewed low type frequency input does not enhance pattern recognition in first contact with a new

construction, whereas more advanced learners display highly productive generalization from the same input. These frequency effects differ from those observed in supposedly implicit artificial language learning, where skewed low type frequency input has been argued to enhance initial pattern recognition (Goldberg & Casenhiser, 2008) and developing productivity is assumed to depend on high type variation (Suttle & Goldberg, 2011). Thirdly, frequency effects in incidental explicit learning differ from those observed in more traditional intentional explicit learning settings (deductive or inductive rule search instruction; McDonough & Trofimovich, 2013). Our findings suggest that skewed input may enhance both implicit and explicit learning, given that explicit learning is truly incidental, that the amount of input is large and that learners can draw on prior knowledge.

Azad Mammadov

Azerbaijan University of Languages

Misgar Mammadov

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Rhetoric parameters of conceptualization across languages and genres

The paper aims to investigate rhetoric parameters of conceptualization in discourses belonging to different languages and genres. For this purpose, we wish to introduce theoretical framework for our study and then to carry out critical analysis (Charteris-Black, 2005) of metaphors, metonyms and slogans in English, Azerbaijani, Russian, French discourses belonging to different genres. In total, we analyzed about 500 pages of texts from American, British, Azerbaijani, Russian and French national corpora. For recent years metaphoric and metonymic conceptualization in discourse have been widely studied but mostly focusing on specific language and genre (Musolff, 2004, Semino, 2008, Hart, 2011, etc.). We consider metaphors, metonyms and slogans used in discourse from the perspective of shaping those concepts which do not represent cultural identity of that discourse. In addition, the specific features of types and genres of discourse also influence the process of conceptualization. For example, literary discourse can ideally reflect this process due to richness of culturally embedded structures in this type and in its relevant genres. The analyzed data suggests that widespread usages of certain metaphors (change the world, time is money, brainwashing), metonyms (Cold War, White House, Berlin Wall, Reds and Whites) and slogans (trust but verify) in discourses belonging to different cultures and genres, which give us an argument to say that they shape the relevant concept (time is money, trust but verify-pragmatism) in those discourses as local knowledge (pragmatism) becomes gradually global. On the other hand the process of borrowing of some of those expressions through calques is actually common due to the universal nature of the relevant concepts (brainwashing, White House—power, change the world, Cold War, Berlin Wall, Reds and Whites-ideology). Thus metaphors, metonyms and slogans persuade discourse participants to recognize the prominent global and local values of concepts and furthermore construct the identity of cultural pluralism.

Veronika Mattes

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The semantic categories of lexical reduplication

Lexical reduplications, i.e. lexemes with a reduplicative structure which is not the result of a productive reduplication process, are usually excluded from the analysis of semantic categories of reduplication (as argued, for example, by Kouwenberg & LaCharité 2001: 64). However, many languages possess such lexical reduplications to a much greater extent than is generally acknowledged and, on closer inspection, this group of lexemes exhibits noticeable semantic regularities. This paper presents an analysis of the semantic concepts of the lexical subgroup of reduplications. It mainly relies on fieldwork data of Bikol, an Austronesian language, but also includes comparable data from several other, unrelated languages. Some examples are:

Bikol	Arabic	Kwaza
kadkad 'dig a hole'	qa'qa 'raven'	dynã-dynã 'to nod no'
wasíwas 'wave, swing'	tahtah 'young horse'	ka-kau 'carrion crow'
guling-guling 'kind of snail'	hašhaš 'poppy'	rilo-lo 'to stagger'
harap-hasap 'rough'	(Prochazka 1995: 58)	(van der Voort 2003: 78/80)

It will be argued that, at least in the languages under investigation, lexical reduplications are highly "iconically motivated" and as such belong to the "expressive" part of the lexicon, in Klamer's (2001) terms. It will be demonstrated that most lexical reduplications can be assigned to one of the four major semantic categories of SENSE, NAME, BAD (cf. Klamer 2001: 169), and MOVEMENT & PLURALITY, whereby a large number of items combine semantic features of at least two of these types, which is also due to the close conceptual relationship of the categories involved. In contrast to the common rejection of the existence of any systematic relation between lexical and productive reduplication, this paper argues for a cognitive close connection between them.

Vera Menailo

National Research University Higher School of Economics

Metaphoric representation of abstract concepts in literary discourse

The paper is dedicated to the study of an abstract concept of FREEDOM in the modern English language and in the discourse of J. Fowles and J. Joyce. Abstract concepts don't refer to particular objects in the reality and thus can hardly be represented by one word, usually they require a complex of linguistic means to appeal to the mental phenomenon which stands behind them. The main peculiarity of the abstract concept is the fact that its variant individual component is much bigger than its invariant national one. Analysis of combinatory power of the nominees of the abstract concept of FREEDOM in the English language shows that the abstract notion of freedom is

perceived by English people as a concrete entity. Thus, freedom is understood as a state which a person may acquire or lose during his life as a result of some actions, but not as an inborn quality. To discover metaphoric means of the concept representation and to prove that its individual component exceeds its national one two novels were studied: "Daniel Martin" by J. Fowles and "A Portrait of the Artist as a Young Man" by J. Joyce. The concept of FREEDOM occupies the central place in both of the texts, however the list of images and stylistic devices used by the authors to represent the notion of freedom is different even if the subject-matter of their novels is similar. For instance, Joyce's constant reflections on the place religion should occupy in a person's life leads to the use of considerable amount of allusions to Bible, which help him to emphasize spiritual characteristics of the notion of freedom. Concurrently, J. Fowles, who spent the second half of his life in a solitary place near the sea, emphasizes such characteristic of freedom as solitude.

Olga Mishina

Samara State Academy of Social Sciences and Humanities

Representation of the author's comic picture of the world in the video-verbal text

This paper deals with the concept of the 'comic picture of the world', interpreted as part of an ideal representation of world. The comic idea is given substance through the use of various devices including language (humorous texts), art (cartoons, comics), folklore, rituals, fashion and erratic behavior of people, among others. The choice of the comic device is dependent on the scope of the author's individuality and creativity. In this article I propose that the author's original comic view of the world can be deduced from the methods he/she has used to create humor in the text. This idea is illustrated by the results of recent research into the ways of creating humorous effects in the video-verbal text of the comedy «Monty Python's Flying Circus». The comic devices used bring out the authors' comic vision which can be depicted as a sphere with three elements within: international humor, national humor and the authors' own sense of humor. International humor is the core component of the authors' comic vista: portrayed through festive folk forms and images such as carnival beatings, jesters tricks, jokes, and grotesque body shapes. People from all cultural backgrounds respond to this type of humor. The second part of the "Pythonesque" comic picture is replete with traditional comic images reminiscent of "topsy-turvy world" creatures like Mother Goose, Edward Lear limericks and the literary nonsense of Lewis Carroll. The peripheral yet binding element is the authors' individual humor which manifests itself in a variety of verbal and visual comic devices. Although many Monty Python sketches are based on absurd situations it is the word play that makes the comedy series unique. In the paper I shall continue to explore this argument in more detail.

Alexandra Nagornaya

Moscow City Teachers' Training University

Hungry spears, awakened bandsaws and gripping waves: Mixed metaphors in interoceptive discourse

Interoception is the detection of stimuli which originate in the internal milieu of the body. Interpretation of these stimuli is a highly sophisticated cognitive process due to their phenomenological specificity. Unobserved and principally unobservable, immeasurable and unverifiable, uncontrollable and unsharable, they offer the experiencer no convenient ready-made models and formulas he or she routinely relies on when involved in extrareceptive activities. Immersed in the solitude of interoceptive experience and unable to compare it with anybody else's we are obliged to seek conceptual landmarks which would enable us to somehow grasp this elusive reality, provide it with structure and meaning and finally articulate it, making the contents of our mind available to others. Communicating our individual interoceptive experiences we create a shared discourse space which can be termed 'Interoceptive Discourse'. Interoceptive Discourse is a complex structure which is permeated by metaphors, a considerable part of them being of a mixed type. The popularity of mixed metaphors is accounted for by the fact that interoceptive phenomena allow for multiple equally valid alternative interpretations, which results in the emergence of several principally different mental models within individual mental spaces. These mental models do not exist in the form of coherent and cohesive well-reflected narrative-like structures. On the contrary, they are present in individual mental spaces as conglomerates of separate elements which can be combined to form an emergent structure which most accurately reflects the qualitative and quantitative characteristics of the interoceptive phenomenon the experiencer is willing to articulate. In my presentation I intend to identify the semantic domains most relevant for the metaphorization of interoceptive phenomena, to prove the principled multiplicity of mental models which form the basis of Interoceptive Discourse and to demonstrate the role this multiplicity plays in creating mixed metaphors. I argue that Mixed Metaphor is a highly efficient and productive way of verbalizing interoceptive experience as it enables us to reflect within one compact structure several aspects of a certain phenomenon simultaneously without producing the effect of conceptual cacophony. Mixed Metaphor is the only mechanism which helps us to convey the lability of interoceptive phenomena which is one of their most essential characteristics.

Kyriaki Neophytou

Utrecht University

Marjolein van Egmond

Utrecht University

Sergey Avrutin

Utrecht University

Word frequency distributions in aphasic speech across languages

Word frequencies in healthy people's speech follow a power law, known as Zipf's law. People with aphasia experience various difficulties when speaking due to reduced processing capacities (Avrutin, 2006; Burkhardt et al., 2008). Previous studies (e.g. Egmond, 2011) showed that despite these difficulties, the word frequency distribution in speech from non-fluent Dutch people with aphasia conforms to Zipf's law, although with a different slope. In this project we investigated to what extent these results can be generalized to other languages, specifically English, German and Hungarian. Speech samples from fluent and non-fluent aphasic patients and controls (N=5 for each group) were taken from AphasiaBank (MacWhinney et al., 2011). For each sample, 200 tokens were analyzed, which is the number of tokens in the smallest sample. Fit and coefficient of Zipf's law were calculated through linear regression. The results show that speech from all groups conforms to Zipf's law. Some differences in slope were found. For German, it was found that Zipf's law in speech from non-fluent aphasic patients had a steeper slope than in speech from fluent aphasic patients. For Hungarian, it was found that Zipf's law in healthy speech had a steeper slope than in speech from non-fluent aphasic patients. For English, no differences in slope were found. The differences in slope do not seem to follow a particular pattern across the three languages: for example, it is not the case that speech from people with non-fluent aphasia always displays a steeper slope than speech from people with fluent aphasia. This suggests that language-specific features are responsible for these differences. We argue that since aphasics have processing problems, the fact that speech from all groups conforms to Zipf's law shows that Zipf's law originates in the mental lexicon and that mental lexicon is still intact in people with aphasia.

Claire Noble

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The role of television and book reading in children's grammatical development

This program of research investigated the linguistic characteristics of three sources of input to the language-learning child; books, television and child directed speech (CDS). In study one, best-selling children's books and television shows were analysed in terms of syntactic constructions and compared with a sample of English CDS. The analysis indicated significantly higher levels of complex constructions in the book sample and the television sample compared to CDS. Additionally the book sample contained significantly more subject predicate constructions than CDS. When sharing books the linguistic input comes from both the book text and the caregiver's discussion of the book. Therefore in Study two we investigated the language caregivers used when presenting books to their children. Twenty-three 2-year-old children and their caregivers took part in a book reading session consisting of two books. The dyads then participated in a free play session. Caregivers used significantly more subject-predicate and complex constructions during the shared book reading session than in the free play session, even when book text was removed from the analysis. The findings suggest that shared book reading has the potential to enrich a child's linguistic environment beyond the book text. Television tends to be thought of as an activity that a child does alone. However caregivers report that they engage in television viewing with their child. Therefore in study three we are investigating the language caregivers use when watching television with their child. Preliminary results suggest that the language caregivers use when viewing television with their child is again different to CDS. Overall these findings have implications for researchers interested in the characteristics of children's linguistic input, but also for encouraging caregivers who do not have the confidence to read to their children. It appears that simply talking about pictures has the potential to enrich a child's linguistic environment.

Joanna Nykiel

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Structural priming effects in the ellipsis alternation

Structural priming effects emerge when speakers reuse syntactic material to which they were exposed in previous discourse. Such priming occurs within speakers (Bock1986, Gries2005) and between speakers (Levelt and Kelter1982), and has been taken into account in work on syntactic variation (Ford and Bresnan 2010). In this paper, I focus on what I dub the ellipsis alternation, shown

in (1), where the remnant phrases (in bold) may either surface as PPs, repeating the structure of their PP correlates (italics) (1a), or as NPs (1b).

(1) Ben's waiting for an order, but I'm not sure

(a) for what order.

(b) what order.

By means of the 100-split task (Ford and Bresnan2010), I explored the nature of priming effects in contexts like (1) and in contexts like (2)–(3), where another PP followed the correlate.

(2) Ben's waiting for an order from one of our important customers, but I'm not sure

(a) for what order.

(b) what order.

(3) Pat was rescued by a neighbor near one of the major gas stations, but I'm not sure

(a) by which neighbor.

(b) which neighbor.

I hypothesized that in contexts like (2)–(3) priming effects should be weaker than in (1) due to potential interference from the second PP (see Levelt and Kelter1982 for support from question-answer pairs). This hypothesis was confirmed for items including combinations of verbs and prepositions in which prepositions were semantically dependent on verbs (this classification was based on Hawkins's (2000, 2004) entailment tests), as in wait for in (2). No priming effects emerged for items in which prepositions were semantically independent of verbs, as in rescued by in (3). These results suggest that structural priming better accounts for the ellipsis alternation in languages with strong semantic dependencies between verbs and prepositions than in languages with weak dependencies.

Dave Ogden

University of Michigan

Nick Ellis

University of Michigan

Child acquisition of distributional and semantic properties of verb-argument constructions (VACs) and its lead in adult usage

Construction Grammar accounts of language acquisition hold that children learn abstract verb-argument constructions (VACs) from the statistical distributions of forms and their functions in usage (Goldberg, 2006; Tomasello, 2003). Learning is facilitated by Zipfian type-token verb constituent distributions (Goldberg, Casenhiser, & Sethuraman, 2004); faithful verb constituents (Ellis, 2006);

and coherent verb and VAC semantics (Ellis, O'Donnell, & Römer, 2013). We report the results of a large-scale analysis of English VACs in the CHILDES database (MacWhinney, 2000) to test whether VACs in child-directed speech (CDS; 5,141,115 words) and child speech (2,689,929 words) have these characteristics. Using a Python script and morpho-syntactically parsed English CHILDES data, we extracted instances of the intransitive motion, caused motion, transitive, and ditransitive constructions. Samples were hand-checked for precision in both form and function. Verbs in these results make up 57% of verbs in the corpus. Mean formal precision is 96% with 97% inter-rater agreement; functional precision is 90% with 93% agreement. The distribution of verb types in each of these constructions against ranked verb type frequencies is Zipfian (median $R^2 = 0.97$), and measures of VAC-verb contingency show that these Zipfian profiles are characteristic of particular VACs rather than verbs as a whole. Verb frequency in children's and parents' use is strongly correlated (median $r = 0.72$). Our current work uses semantic relationships from WordNet (Princeton University, 2010) to build networks relating the verb constituents of each VAC, and then to measure the prototypicality of each verb in terms of its 'betweenness centrality', as well as the density and connectedness of the semantic networks as a whole. This allows us to determine the degree to which children follow the semantic characteristics of CDS and use prototypical verbs in VACs. Analysis of semantic networks and frequency distribution against MLU characterizes the longitudinal development of children's verb repertoires.

Hiroshi Ohashi

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On having said that: A usage-based analysis

This paper presents an in-depth analysis of the English construction having said that, drawing on data from the COCA and the COHA. Originally an adverbial participial clause whose meaning varies according to the relation with the main clause, having said that now has an idiomatic discourse function of "introduc[ing] an opinion that makes what you have just said seem less strong" (OALD8), as illustrated in (1).

(1) I sometimes get worried in this job. Having said that, I enjoy doing it, it's a challenge.

I argue that this discourse function of referring to what the speaker has just said and making a contrasting point that mitigates it motivates some grammatical features and an emergent new discourse function. Grammatical features that are discussed include: that 98% of the instances of having said that appear sentence initially or are preceded by sentence initial conjunctions or interjections, making a stark contrast to a participial clause with a concessive meaning which displays no remarkable distributional patterns, according to Kortmann (1991); the use of that, instead of this which tends to be used to refer to what the speaker has just said (Takahashi 2004); and no requirement on the choice of the main clause subject, despite its origin as a participial adverbial clause that most frequently has the same implicit subject as the main clause. I also examine corpus data of having said that in comparison to its related constructions that being said and that said, as well as their counterparts that use this instead of that, as in having said this, this being said, and this said, in terms of their difference in register and chronological change. Finally, I

discuss the intersubjectivity of having said that and mention the possibility of an emerging function of shifting a discourse topic.

Adriane Orenha-Ottaiano

Universidade Estadual Paulista "Júlio de Mesquita Filho"

The relevance of general language and translation learner corpora to collocations learning and teaching

According to Pawley e Syder (1983), learners in the early stages of “putting one’s ‘book knowledge’ into practice”, will tend to have, to the native ear, an unidiomatic production. That may imply that mastery of phraseological units, especially of collocations, is of great importance to learners who want to become fluent in a foreign language and have their speech move more naturally. This work, part of a larger research project, sets out to investigate the English collocations extracted from a parallel corpus called Translation Learner Corpus (non-native use of collocations) and the ones found in general language corpora, Corpus of Contemporary American English (Davies 2008-2012) and the British National Corpus (native use of collocation). The Translation Learner Corpus (TLC) is made up of C1 and C2 undergraduate students’ translations in the Portuguese-English direction. The original texts that comprise the corpus are newspaper articles taken from well-known Brazilian newspapers and magazines. The typology of the texts are related to current world news and the topics selected were Financial crises in Greece and in Europe; Unemployment, etc. WordSmith Tools (Scott 2008) was used and enabled us to raise the most frequent collocational patterns, so that we can also investigate the influence of the mother tongue on their choices, among other aspects. The general language corpora were used to check the frequency of the collocational patterns extracted from the TLC. When the collocations proposed were not frequently used or recurrent, other collocations were discussed as translation options. We hope the results obtained from this research may help students, through the explicit teaching of collocations and corpus-based activities, increase their proficiency in English and hence enable them to achieve native-like naturalness. Moreover, we strongly believe that corpus-based research in translation classes may shed light to new ways of teaching and learning phraseology, especially collocations.

Carolin Ostermann

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Particles in cognitive dictionary entries: The case of *over*

In cognitive linguistics, there has been extensive research on particles in the context of cognitive polysemy over the last decades, especially on the particle *over* (e.g. Lakoff 1987). On the other hand, particles are notoriously difficult to teach and describe in a lexicographic context (Coffrey 2006), apart from the fact that dictionary users generally refrain from looking them up (Bogaards 1998). This is where this proposal takes up by suggesting ‘cognitive’ dictionary entries of the vertical cluster *over-under-above-below*, based on findings from cognitive linguistics, still remaining true to the traditions of lexicographic presentation (Svensén 2009). These new dictionary entries have the advantage of being more accessible to the user using cognitive language input, as well as being neater in representation, replacing excessively long dictionary entries with often redundant meanings caused by a superfluous split into traditional word classes. For this approach, the example sentences of the particle entries from LDOCE5 are taken as a corpus and are annotated and grouped according to their core meaning as well as meaning extensions and elaborations (Langacker 1987, 1988), often via metaphor and metonymy (Lakoff and Johnson 1980). Not only does this display the polysemous structure of the items including the distance between meaning nodes, but also does this later encourage lexical learning (Frisson et al 1996, Tyler and Evans 2004). The different meaning clusters, i.e. senses are then compared to the suggested meanings from Tyler and Evans’ principled polysemy approach (2003, 2004) and finally, the dictionary entry is created by defining, i.e. paraphrasing the meaning clusters and assigning the original example sentences in their correct position. All this leads to a neater dictionary entry with a cognitive polysemous structure where additionally, relations between the particles of the cluster can also be made visible.

Naoki Otani

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Asymmetrical characteristics of *up* and *down* within synonymous verb-particle constructions in English

The present study discusses synonymous verb-particle constructions (hereafter, VPCs) including *up* and *down*, arguing that *up* has an event-oriented (or agent-oriented) characteristic, while *down* has a patient-oriented characteristic. To that end, this study investigates extensive research on the British National Corpus (BNC) of three types of synonymous VPCs (*burn up/down*, *drink up/down* and *shoot up/down*). These VPCs are regarded as synonymous in that they can be used interchangeably only with slight semantic modifications. However, within the synonymous VPCs, *up* and *down* behave quite differently. The method of this study involves the following three steps: First, I retrieve all examples of the three types of synonymous VPCs from the BNC. Second, I annotate them for six grammatical and semantic factors in a spreadsheet. Third, I generate co-occurrence tables of these factors and evaluate them. The results include the following points: First, in intransitive uses, *up* tends to appear in unergatives (*I drank up quickly.*), while *down* tends to appear in unaccusatives

(*The house burnt down*). Second, *up* is rarely used in passives, while *down* is often used in passives. These results suggest that *down* is a patient-oriented expression, because the subjects of unaccusatives and passives are semantically a patient. Third, *up* is more extended in meaning than *down* in two ways: the 'vertical' sense is often weakened (*shoot bears up, drink up beer*), and VPCs including *up* often have acquired metaphorical meanings (*burn up calories*). This shows that *up* is more integrated into its main verb, illustrating the final state of the event depicted by the verb. This study then discusses these different characteristics of *up* and *down* in terms of grammaticalization and semantic extensions, arguing that the aspectual function is more established in *up*. Compared to *down*, *up* shares more characteristics that are typically found in a general aspectual marker.

Chongwon Park

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Active zone and English copy raising

The aim of this presentation is to provide an analysis of English copy raising (CR) constructions from a Cognitive Grammar (CG) perspective. (1) is typical of CR, where the referent of the matrix subject is identical to that of the embedded clause's subject.

(1) Dan seems like he understands Algebra.

Though raising is a widely-known phenomenon, CR constructions have received little attention, the most notable papers being Rogers 1971, 1972; Potsdam & Runner 2001; Asudeh 2002; Landau 2009, 2011; Asudeh & Toivonen 2012. The majority of the research on this topic regards this phenomenon strictly structurally. Relying on Langacker's (1995, 2008) analysis of raising using active zone, we argue that the CR construction is fundamentally the same. The complement process ('understands') in (1) represents the subject's ('Dan') active zone with respect to participation in the main relation ('seems like'). We further argue that our CG based analysis provides a satisfactory account of data that was problematic for previous approaches, exemplified in (2–4).

(2) The girl seemed as if her mom was dying. (COCA 2001 FIC)

(3) The bed appeared as if someone had recently been dragged from it. (COHA 1827 FIC)

(4) ... the scene appeared as though the children were up in the clouds falling through with the snow. (COCA 1998 FIC)

In (2), the 'girl's location on the probability scale is mediated by the process in which 'the girl' participates as a reference-point ('her'). This schematic process is 'the girl's active zone with respect to the scale. (3) is accounted for in a similar fashion. (4), where no "copy" of the matrix subject is found in the complement clause, is analyzed using the notion of setting subject. Here, 'the scene'

that the participants occupy functions as a setting subject, thereby leading to an expletive raising-like interpretation. (299 Words)

Adeline Patard

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From perfect aspect to counterfactuality: The semantic evolution of the conditionnel *passé* in French

As the perfect equivalent of the conditionnel *présent* in French, the conditionnel *passé* (*j'aurais aimé*, 'I would have liked') only lately integrated the tense paradigm in the history of the language: this form is not attested before the 12th century and, according to Wagner (1939: 231), it is only from the 18th century onwards that its use has superseded that of the past subjunctive in counterfactual conditionals (*Si j'avais su, je ne serais pas venu*, 'If I had known, I wouldn't have gone). Except for Wagner's study (1939), there is almost no study on this tense and its historical evolution remains rather under-documented. The present paper contributes to fill this gap by investigating the semantic evolution of the conditional *passé* in the diachrony of French and exploring the mechanisms of linguistic change involved. This study relies on the quantitative and qualitative analysis of a diachronic corpus extending from Old French to Modern French. The objective is two-fold: Firstly, I depict the different stages of diachrony of the conditionnel *passé* in French by investigating several of features which evolved over centuries: its relative frequency, its contexts of use (indirect speech, modal contexts, intersubjective contexts, evidential contexts), its interpretations (perfect, past and/or counterfactual) and the actionality of the predicates the conditionnel *passé* can combine with. The corpus study shows that the major evolution of the conditionnel *passé* is the development, around the 16th-17th centuries, of a counterfactual meaning at the expense of the perfect value coming from the compound morphology AVOIR/ÊTRE + past participle; thus, in many contexts, the conditionnel *passé* progressively stopped referring to the anteriority of a potential eventuality (1), to increasingly express the non-realization of a (past) eventuality (2):

- (1) Puis n'avroit garde de morir, ma dameisele, vostre amis, qui ceste herbe li avroit mis sor ses plaies et bien liee. (Ch.de Troyes, 12th century)

'Your friend, my young lady, would not fear to die, if one applied (lit. would have applied) this herb on his wounds and tied it well.'

- (2) Il tua tout ce qui s'opposa à son passage ; et blessa Aribée en tant de lieux, qu'enfin il se seroit sans doute resolu de se rendre ; si tout d'un coup une maison enflamée ne fust tombée si près du lieu où ils combatoient, qu'Aribée en fut ensevelis. (M. de Scudéry, 17th century)

'He killed everyone who opposed him and wounded Aribée in so many places that the latter would have probably resolved to surrender, if all of a sudden a burning house had not fallen so close to the place where they were fighting that Aribée was buried by it.'

Secondly, I explore the mechanisms of linguistic change that underlie the described evolution. I argue that the emergence of the counterfactual meaning stems from the conventionalization of pragmatic inferences which I analyze as the transition between bridging contexts and switch contexts (cf. Traugott & Dasher 2002, Heine 2002). In the end, the studied case neatly illustrates with an ‘inflected tense’ what has been mostly reported with modals (see for instance Van Linden and Verstraete 2008), namely the pragmatic link between perfect aspect and counterfactuality.

Ana Cristina Pelosi

Federal University of Ceara

Heloísa Pedroso de Moraes Feltes

Universidade de Caxias do Sul

Luciane Corrêa Ferreira

Universidade Federal de Minas Gerais

Metaphors and metonymies in talk about violence in urban Brazil

This talk presents the metaphors and metonymies people use when talking about urban violence in two focal groups composed by 12 university students in Fortaleza-Ceara-Brazil. The analysis of the discourse which emerge from their verbal interactions is based on a discourse dynamics perspective to metaphor and metonymy (Cameron and Maslen, 2010; Cameron et al., 2009), whereas the cognitive aspects of the figurative language produced by discourse participants are approached from an embodied view of cognition (CF. Varela, Thompson and Rosch, 1993) that understands language as a situated cognitive emergence which is to a great extent, structured from sensorimotor schemas but which also incorporates aspects of a socio-cultural nature. We take a discourse dynamics approach to metaphor that holds that metaphors and metonymies people use in talk reflect their emotions, beliefs and understandings of the uncertainties generated by high levels of violence. Although the analyses centre on data gathered from the discourse produced by the focal groups in Fortaleza, Ceara, Brazil, comparisons between these data and data gathered from Belo Horizonte, Minas Gerais, Brazil are conducted. Our research questions are: What are the key topics about urban violence which emerge in the focus groups talks? How do metaphor and metonymy emerge in talk about urban violence? We adopted the following methodological procedures: 1) metaphor-led discourse analysis (CAMERON, 2009), which enables us to reflect on the way Brazilians face situations of urban violence and the type of figurative language they use in order to conceptualize violence and to show empathy; 2) conceptual metaphor analysis, which help us understand discursive interactions motivations. Results point to eight recurrent discursive topics in the groups analyzed. We have also noticed the presence of circulating stories and metonymies which are taken as indexes for potential violence situations. Among other aspects results support evidence that CONTAINER metaphors are recurrent in the symbolization of INSIDE/OUTSIDE when victims of violence express feelings of security as opposed to insecurity.

M. Sandra Peña

University of La Rioja

Olga I. Díez

University of La Rioja

Cognitive constraints and intransitivity

This proposal is a usage-based approach to the study of a family of constructions embedded within the Cognitive Construction Grammar paradigm. Cortés and Mairal (2013: 229) define coercion as the clash between lexical semantic and constructional features. Boas (2003), Nemoto (2005), and Iwata (2008) adhere to the lexico-grammatical strand of constructionist approaches and, in stark contrast to Goldberg's (1995) constructionist perspective, they propose mini-constructions (event-frames which capture semantic information and which draw from Fillmore's Frame Semantics). In keeping with Boas' (2011) recent view that both his and Goldberg's approaches should be reconciled, on the basis of natural occurring data retrieved from the Corpus of Contemporary American English and WebCorp, we will put forward a family of constructions, the fake intransitive construction, which encompasses the middle, inchoative, and deprofiled object (DOC) constructions. We will discuss the cognitive constraints (especially those related to metaphoric and metonymic activity) which underlie these constructions and the connection of such patterns with intransitivity. Moreover, we will claim that the DOC involves a process of intransitivization which can be explained on the basis of cognitive economy, semantic recoverability, and the Principle of Omission of Patient under Low Discourse Prominence coupled with a process of highlighting the predicate. Finally, we will argue for the necessity of further specifying mini-constructions for each of each of these constructions.

Meike Pentrel

University of Osnabrueck

“So that I do fear this account may yet be long ere it be passed...”: Cognitive strategies and the ordering of temporal adverbial clauses in Early Modern English

This paper aims at bringing together findings from modern psycho-/cognitive linguistics and historical data. Studies applying cognitive ideas to historical linguistics mostly deal with concepts such as metaphor, blending, or framing (cf. Winters 2012); research on more specific syntactic phenomena relating to cognitive processing principles is rare and often fails to connect back to the present-day source theories. Based on the uniformitarian principle (cf. Lass 1997, Bergs 2012) this study assumes that the same cognitive strategies govern the production and comprehension of texts today and in the past. Thus, if the patterning found for a syntactic variable in a historic text deviates from the one predicted by such strategies, either they or the hypotheses made for historical text production might need some revision. This way a feedback loop in which modern theory feeds into historical data, and historical data into modern theory is established. Putting this theory to work, this

study looks at the ordering of main and temporal adverbial clauses in Early Modern English. PdE studies show that usually one clause sequence is preferred, determined by specific cognitive processing/discourse strategies such as MAIN-CLAUSE FIRST, ICONICITY OF SEQUENCE, or GIVEN-NEW (Prideaux 1989; Diessel 1996, 2005, 2008). The strategies may oppose or override each other, often depending on the text type. This text-count study takes its data from The Diary of Samuel Pepys (1660-69) which ranges stylistically between spoken and written language (cf. Koch & Oesterreicher 1985). Assuming the universality of cognitive strategies, the preferred clause order found should meet the predictions for temporal adverbials in such text types made by the processing strategies. This study critically evaluates the results of the empirical analysis in the light of PdE data and supposedly universal cognitive factors. It will thus provide the much needed feedback loop between historical language data and contemporary cognitive/psycholinguistic theory.

Marla Perkins

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Cognition of geographic space in Hobongan: An overview of the geographic lexicon

In a partial report on Hobongan, an as yet undescribed Austronesian language spoken by approximately two thousand people on the island of Borneo, I examine the lexicon of geographical terms with particular emphasis on what these terms indicate about how the Hobongan cognize about navigation and categories in their geographical environment. As is known from earlier research on the cognition of geographical spaces and navigation (e.g., Golledge and those who have continued along his research program, as well as Mark, e.g., 1993, 1997), landmarks and choice points are crucial, with route descriptions or overview descriptions between layered onto those items. In Hobongan, geographic terms can be categorized as follows: relatively small-scale interruptions of larger-scale patterns are point-like landmarks, stationary items of any scale or material (e.g., mountains, a relatively permanent wave in the river, or a tree) can also be referenced and used as point-like landmarks; rivers and ridges are used as linear items that in turn drive a preference for linear route descriptions; branches of rivers or ridges are choice points with other landmarks being used to indicate which choice is to be taken when giving route descriptions; and any point-like landmark, scale permitting, can be cognized as a navigably large area (mywork, 2009). Hobongan thus parallels the requirements and preferences in cognizing about geographical spaces and navigation that have been identified previously for Indo-European languages, which suggests that those elements could turn out to be universal. However, the elements of the geographic inventory indicate the kinds of items in the Hobongan's environment that are particularly salient for them. What the items indicate is not just the language directing attention (e.g., Talmy, 2000, 2010), but that culturally and navigationally relevant attention in fact directs language and the categorization that lexical items indicate. Language and attention are thus in a co-creative and co-reinforcing relationship.

Diogo Pinheiro

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Lilian Ferrari

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Subject inversion in Brazilian Portuguese: a viewpoint phenomenon

Linguists' understanding of viewpoint has been advanced by recent research on mental spaces which has explored issues such as tense and mood (Cutrer 1994), speech and thought representation, specially 'free indirect discourse' (Sanders and Redeker 1996; Nikiforidou 2010, 2012; Vandelanotte 2012), narrative spaces (Dancygier 2012), irony (Tobin and Israel 2012); subjectivity and subjectification processes in language change (Ferrari and Sweetser 2012). Yet the analysis of specific syntactic phenomena in terms of viewpoint structure has received less attention in the literature. This paper aims at filling this gap, by presenting evidence that subject inversion in Brazilian Portuguese is a viewpoint shift phenomenon. Based on some basic assumptions of Goldberg's Construction Grammar (Goldberg 1995, 2006), and on recent developments of Mental Spaces Theory (Sanders, Sanders and Sweetser 2009, 2012; Ferrari and Sweetser 2012), the analysis seeks to identify the functional/cognitive motivations for subject inversion in BP simple clauses. Given that SV sentences and inverted VS sentences frequently convey the same objective content, the question to be raised, based on the Non-Synonymy Principle (Goldberg 1995), is the following: what is the semantic and/or pragmatic difference between them? Drawing on attested conversational data from Brazilian Portuguese, the research provides a principled account of subject inversion by integrating what is left unexplained by previous research on Brazilian Portuguese, such as the occurrence of pronominal subjects in VS sentences (cf. Ferrari 1990; Naro and Votre 1999). It is argued that: (i) SV and VS structures evoke different mental space networks: the former instructs the hearer to set Viewpoint in the Speech Act Space, located in the Deictic Centre of Communication, whereas the latter signals Viewpoint shift to the Content Domain; and (ii) VS construction simulate a perceptual experience (visual, auditory, and so on), by conceptually profiling a Focused Entity (ex. a person, an object, a sound, etc.) in the perceptual scene.

Dan Ponsford

Lancaster University

Co-evolution of gesture and construction: Laying stakes and laying wagers

The use of LAY in English bet-making is originally motivated by the physical practice of laying down stakes as a gesture of commitment. This practice eventually gives way to practices where there is no laying down. In the process, staking constructions with LAY take on other aspects of meaning: an interpersonal one (the relation between the staker and the interlocutor) and a cognitive one (the relation between the staker and the proposition that is bet on). LAY is often used in conjunction with WAGER, one of whose meanings is 'stake'. At an early stage, LAY A WAGER means 'put down a stake'. It is thus compositional, and WAGER is referential. As LAY loses its physical meaning, so

WAGER loses its independent, referential meaning, and LAY A WAGER becomes a complex predicate. (See Traugott 1991 for other speech act verbs with physical sources.) Staking is initially a unilateral act that guarantees the fulfilment of an undertaking. Betting--that is, reciprocal staking--develops later. At an early stage, bet-making involves independent unilateral acts of staking: one party stakes unconditionally on a proposition, and the interlocutor then voluntarily reciprocates, staking on the opposite proposition. Since the reciprocal act is not obligatory, it is expressed at length. Betting matures as a practice when acts of staking are interpreted as initiating a bilateral deal. With this as the conventional interpretation, acceptance may be signalled more briefly, e.g. with DONE! Two possible routes are suggested by which the expression of a proposition comes to be part of LAY constructions, one involving expansion of a once-nominal location slot (cf. Heine and Kuteva 2007), the other involving union with a THAT-clause. Data come from a collection of 100 examples of staking with LAY from fictional dialogue, supplemented by narrative examples.

Matthias A. Priesters

RWTH Aachen University

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A metadata profile for describing multimodal language resources

For empirically working cognitive linguists, language and communication data is the fundamental source of research. Until lately, this data consisted mainly of speech recordings or written texts, but in recent years the scope has been widened to include signed languages (e.g. Liddell 2003) as well as further modalities of natural communication such as gesture, body posture (e.g. Cienki 2010, Mittelberg 2007, Sweetser 2007) and eye gaze (e.g. Brône & Oben fc.). Thus, an increasing number of recent data collections are comprised of multiple synchronous data streams, such as audio, video and time series data (e.g. motion capture or eye tracking). Metadata ('data about data') are a key component of such datasets to make them searchable and re-usable for others. However, not much work has been put into the development of metadata for the particular structure of multimodal corpora. What we present here is a novel metadata profile resulting from an effort to integrate several multimodal corpora into the European project of a Common Language Resources and Technology Infrastructure (CLARIN). Our profile follows the CMDI standard (Broeder et al. 2012, de Vriend et al. 2013) and provides components and elements for describing a wide variety of corpora in a modular and adaptable way. Besides technical and administrative information, it comprises metadata components for the description of study participants (including gesture and sign language specific properties), instructions, stimuli and elicitation methods as well as recording conditions. In

addition, we put emphasis on metadata about multimodal annotations, notably the flexible description of the category systems used. With this profile, we (1) provide the possibility for researchers to describe their multimodal resources in a machine-readable way, making them searchable in metadata search engines and (2) aim to initiate a discussion on which aspects should be included in multimodal metadata descriptions.

Rachel Ramsey

Northumbria University

An empirical approach to identifying the senses of polysemous words: Individual variation in sense distinctions

What meaning distinctions do speakers make when presented with polysemous words? A sentence-sorting task was used to answer this question, with the aim of isolating an empirically-validated set of senses of the polysemous words *over*, *under*, *above* and *below*, to be used in an investigation of their prototypical sense(s). The results of the task reveal variation in the meaning distinctions made by these speakers; further, they indicate that the degree of agreement itself varies between the target words. *Over*, the most frequent of the four words, was subject to the weakest agreement ($\kappa = 0.48$), while *below*, the least frequent, showed strongest agreement ($\kappa = 0.75$). While it is acknowledged that sense distinctions are subjective (Rice, 2003), this degree of variation was unexpected and is not predicted in the literature. Further, the author knows of no research predicting differences in extent of agreement. The immediate implication for the remainder of the project is that, in the absence of a set of senses accepted with substantial uniformity across a sample of speakers, it is difficult to test their relative prototypicality. The wider implication is that the distinctions made in polysemy literature (for example, by Tyler & Evans, 2001) – and, indeed, in dictionaries – do not always coincide with the distinctions made by native speakers of British English. The study is being extended, with more speakers being recruited to sort a larger set of sentences, but the results as they stand offer an alternative perspective on polysemy, one in which different speakers attend to different aspects of a word's meaning when deciding whether two examples of that word are equivalent or distinct.

Irina Remkhe

Magnitogorsk State University

David Gillespie

University of Bath

From frame-based knowledge representation to cognition in technical translation

Issues concerning the ways our knowledge is represented have traditionally presented a challenge to established views on the cognitive processes taking place in the translator's mind. The difficulty of investigating cognitive processes of technical translation may be reconsidered by referring to a frame-based discourse. Accepted practice stipulates that frames are considered as mental knowledge structures that capture the typical features of a situation, which can be applied to the study of the cognitive translation process with a focus on the relation between text, context, world knowledge and technical knowledge within the technical translation area. Moreover, as will be demonstrated, world knowledge and technical knowledge can be represented in source-target text relationships with the help of frames that construct the technical translator's mind, as well as the so-called 'knowledge frame transfer' contributing to knowledge creation and technical communication. The findings of a comparative analysis of 56 written technical translations, followed by a Think Aloud experiment on English-Russian translation conducted with 16 students of Bath (England) and Magnitogorsk (Russia) allowed to establish recognizable trends in framing technical texts and specialized vocabulary as well as to verify prototypical and adaptive translation strategies within the sphere of technical discourse. It will be argued that the success in technical translation is related to a number of factors we do not yet fully understand. Using the methodology of analytic thought and comparative analysis of written translation, the study provides evidence of highly recurrent patterns, such as context-based knowledge framing and text coherence, as a result of the reconstruction of frames of a linguistic and non-linguistic character. These findings redefine our understanding that the process of technical translation relies on cognition as a broader term for knowledge accumulated through practical experience, and is constantly updated during technical text processing with possible 'shifts' in knowledge transfer frames.

Sarn Rich

Canterbury Christ Church University

Designing materials that draw on cognitive linguistic models, to appeal to teachers and to students, for use in mainstream Communicative English-language teaching

There is now a well-established and growing literature on applications of cognitive linguistics to language teaching, and the emphasis in cognitive linguistics on purposeful language-use in context should make it a natural resource for 'the Communicative Approach' in language teaching in

particular. However, although strong cases have been made for the contributions of cognitive linguistics – for example in the attentional system, spatial language or understanding of English modal verbs – mainstream communicative English language teaching, as evidenced by the content of current international English-language teaching text books, continues to rely on traditional language models. As Tyler argues (2008, pp.485-6), key to demonstrating to language teachers the practical usefulness of cognitive linguistic models is ‘creating and testing language teaching materials that maintain the precision offered by the theoretical models, but that are also accessible to L2 teachers and learners’. This paper introduces a project in which such teaching materials are developed in collaboration with English-language teachers trained and experienced in the Communicative Approach, for use with multilingual classes at a UK university for students studying English for general purposes. The aims of the project are to see how ideas taken from cognitive linguistics can be applied, but also how they can be ‘packaged’ to appeal both to busy professional teachers, and to learners studying English who may be more familiar with traditional models. In materials and course design, the project’s guiding principle has been to move away from traditional piecemeal accounts of language features toward a sense of the language system comprising features systematically motivated by cognitive processes and rooted in the sensorimotor system. This has proved successful, for example, (following Boers 2000) in drawing on conceptual metaphor, and in teaching phrasal verbs. The paper will introduce materials and classroom activities developed for the project, and discuss the practical challenges involved.

Nick Riches

Newcastle University

Relativised minimality: Innate constraint or discourse phenomenon?

Rizzi’s theory of Relativised Minimality (RM) is an important generative principle capturing extraction phenomena and processing constraints. It accounts for processing difficulties when a lexically-restricted NP “crosses over” another lexically-restricted NP, e.g. “there’s THE MAN that THE DOG chased _ ” or “WHICH MAN was THE DOG chasing _ ?” These are sometimes called “intervention” structures, as the static NP “intervenes” due to similar syntactic / semantic characteristics. RM is allied to psycholinguistic accounts proposing that similar items interfere in working memory (WM). However, an alternative account, based in Cognitive Linguistics, is that intervention effects reflect input frequency, which in turn is shaped by discourse processes. This study uses mixed methods (corpus and experimental data) to evaluate competing accounts. Experiment 1 analyses the Corpus of Contemporary American English. It finds that intervention questions are vanishingly rare in the input. Analyses using loglinear models exclude the possibility that low frequencies are due to intervention effects. The data are best explained by discourse constraints, e.g. subjects are typically discourse-old, and therefore unlikely to be lexically-restricted. Experiment 2 investigates the comprehension of different question types by 50 typically-developing children (mean age 5;2). Children with strong language and WM skills show better performance on all question types except those involving intervention. These data undermine a WM account, because WM skills do not predict comprehension of intervention structures. Nonetheless the findings are broadly consistent with RM as a linguistic constraint. Input frequency has little effect on

comprehension of non-intervention questions, thus problematising a discourse / frequency-based account. Experiment 3 (Jan 2014) will attempt to definitively evaluate RM and discourse accounts. It focuses on younger nursery-age children to minimise ceiling effects, and designs the stimuli so that RM and discourse approaches are in direct competition with each other.

Katja Roller

University of Freiburg

Welsh that is: On the relation between salience and frequency in Welsh English grammar

Are there grammatical features of Welsh English which are particularly salient? And is this connected to the features' frequencies in language use? The notion of salience is defined by Kerswill and Williams (2002) as "a property of a linguistic item [...] that makes it in some way perceptually and cognitively prominent". It has so far mainly been investigated in the area of phonology (cf. e.g. Labov et al. 2011, Kerswill/Williams 2002) whilst much less is known about salience in morphosyntax. Similarly, salience has by now only been operationalised as a frequency effect regarding phonetic-phonological variation (cf. Rácz 2013). My presentation explores to what extent a high (absolute or relative) token frequency of a non-standard grammatical feature leads to this feature being salient. I also bring the relation between cognitive and sociolinguistic salience into focus. Salience is determined both for 'insiders' (Waliens) and 'outsiders' (Londoners) through questionnaires and audio stimuli. First results suggest that particularly salient features of Welsh English are focus fronting (e.g. A student he was) and the invariant tag question 'isn't it' (e.g. You like him, isn't it?). Corpus analyses investigate the features' frequencies in language use. The corpora for Welsh English are my self-transcribed 'Radio Wales Corpus' and the Welsh section of FRED (Freiburg English Dialect Corpus). As for London English, I use the 'Linguistic Innovators' corpus and FRED-London. Based on Rácz (2013), I hypothesise that if variables have a low probability of occurrence in London English, they might become conspicuous to Londoners and gain salience. Some other possible factors influencing salience (e.g. attitudes towards a variety, intensity of contact) are tested by means of a language attitudes questionnaire. By interrelating results from corpus analyses, perception tests and questionnaires, this project offers a novel approach to salience in morphosyntax. My research is consistent with usage-based approaches (cf. e.g. Bybee 2006) and displays how cognitive and sociolinguistic perceptions can be influenced by language use.

Juhani Rudanko

University of Tampere

Comparing two patterns of object control in English, with evidence from large corpora

Consider sentence (1):

- (1) ... perhaps it were better not to force her into accepting me, ... (1813, CLMETEV, Austen, *Pride and Prejudice*)

In (1) the preposition *into*, followed by an *-ing* clause, is syntactically selected by the matrix verb *force*, and the verb also syntactically selects a direct object, realized by the NP *her*, and the pattern is termed the transitive *into -ing* pattern. The pattern is one of object control, and may be viewed as a construction in the sense of Adele Goldberg's work. To shed further light on the nature and meaning of the transitive *into -ing* pattern as a construction, it is compared with a competing pattern of object control, the transitive *to infinitive* pattern. Sometimes entailment properties separate the two, as with *coax*: in ... they coaxed Dona Carmen into leaving the Moncloe palace ... (BNC, A5M) the truth of the higher sentence entails the truth of the complement clause, but in *They coaxed Dona Carmen to leave the Moncloe palace* there is no such entailment relation. However, recalling sentence (1) with *force*, we may compare *They forced her into accepting me* and *They forced her to accept me*. Here the entailment relation holds with both types of sentential complements. Assuming the principle that a "difference in syntactic form always spells a difference in meaning" (Bolinger 1968, 127), it is therefore necessary in the case of *force* and similar verbs to look for a more subtle distinction to separate the two competing patterns. Authentic data from the BNC and COCA are considered, to define and to compare the conceptualizations expressed by each construction.

Serge Sagna

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Related categorisations of entities and events in the Gújjolaay Eegimaa noun class system

Research on the semantic categorisation principles underlying Niger-Congo noun class systems has proposed, using prototype theory, that the grammatical classification of nouns into classes reflects a conceptual categorisation of entities (Breedveld, 1995; Contini-Morava, 1997, 2002; Moxley, 1998; Sagna, 2012). There is also a general agreement that the same markers used on nouns are also used with verbal roots to form infinitives in Niger-Congo languages, thus raising the question of whether this reflects a categorisation of events and states which parallels the categorisation of entities denoted by nouns. This paper explores the semantic categorisation principles underlying the use of the class marker *ba-* on nouns and verbs in Gújjolaay Eegimaa (Eegimaa henceforth), a Jóola language of the Atlantic family spoken in Southern Senegal. As it is the case for other Jóola

languages, Eegimaa infinitives are formed irregularly using several noun class markers. This language has an additional complication in allowing the combination of more than one noun class marker with the same root as illustrated in (1) and (2) below.

(1) a-are-aw na-ban-e e-pos gá-juo gagu

I.SG-woman-DEF I.SG-finish-COMPL III.SG-wash IV.PL-shirt IV.PL.DEF 'The woman has finished washing the shirt.' (SS20130819_RB)

(2) a-are-aw na-ban-e ba-pos ú-juo wawu I.SG-woman-DEF I.SG-finish-COMPL IIIb.SG-wash V.PL-shirt V.PL.DEF

'The woman has finished washing the shirts.' (ss20130819_RB)

In this paper, I show that the noun class marker *ba-* is a diminutive collective marker with nouns. I argue that the prefix *ba-* combines with dynamic verbs that refer to events which are inherently composed of multiple actions. I provide will clear evidence showing that the use class marker *ba-* to denote multiplicity of small entities in the nominal domain, and multiple actions in the verbal domain, is reflection of the use of similar categorisation principles for both entities and events.

Jodi Sandford

Università degli Studi di Perugia

The embodiment of color conceptualization: An idealized cognitive model

In this paper I propose an original idealized cognitive model of color conceptualization. Color has been used to discuss linguistic phenomena in considering many different aspects: e.g. universality vs. relativity (Berlin and Kay 1969, Pawłowski 2006, Kay, Berlin, Maffi, Merrifield, Cook 2009), categorization (Lakoff 1990, Taylor 1999, Talmy 2003), prototypes (Heider 1972, Rosch 1973, 1975, Geeraerts 2006), primitives (Wierzbicka 2006), vantage theory (MacLaury 2002), metaphor (Deignan 2005), metonymy (Croft 2006), metaphor, metonymy, and embodiment (Lakoff and Johnson 1980, Lakoff and Turner 1989, Steinvall 2007, Kövecses 2010), embodiment (Kay and Mc Daniel 1978, Gibbs 2005), frames (Croft and Cruse 2004), domains, summary scanning (Ungerer and Schmid 2006), domains, minimal concepts, grammatical classes, subclasses, (Langacker 2008). Nonetheless, a model of the frame of COLOR is lacking. The Master Metaphor List states only that color is not mapped from the source domain of vision (Lakoff et al. 1991:88). Cognitive linguistics establishes a central role to meaning through the ideas of embodied experience and cognitive models that are evinced through usage-based analysis of constructions and conceptualization, frequency and distribution in corpus analysis, and psycholinguistic analysis of speaker judgement, salience, reaction time, and implicit associations. The proposed model reassumes research that I have carried out over the past eight years using these empirical methods (cf. Sandford and Buck 2007, Sandford 2009, 2010, 2011a,b,c, 2012, 2013). It culminates in five types of distinction in a conceptual mapping of color: 1) primary, 2) complex, 3) sub-systemic, and 4) specific metaphor, and 5) conceptual metonymy in substantive and spatial relations. The mapping reveals the conceptualization process as surmised from usage of color terms in contemporary American English. The idealized cognitive

model of color mapping illustrates primary embodied conceptual correlations in experience that are established through the dynamic interactions and conceptual integration of COLOR both as a source and a target domain.

Ayako Sato

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Towards a unified account of metonymies

Recent developments in the study of metonymy have clarified the properties of referentiality in conceptual mappings of individual metonymic expressions (Lakoff and Johnson, 1980; Croft, 1993; Langacker, 1995). However, the conceptual distances between metonymies (i.e. conceptual contiguity) remains under-explored (Dirvern, 1993; Barden, 2010; Barcelona, 2011). The present study proposes a unified account of different types of metonymy, focusing in particular on conceptual contiguities represented by levels of figurativity as the motivating factor. I employ the Theory of Lexical Concepts and Cognitive Models (LCCM theory; Evans, 2010). In the LCCM framework, a semantic content associated with a linguistic form (a lexical concept) accesses and simulates a component of non-linguistic knowledge structure (a cognitive model profile). This is called activation. I model the process in which a lexical concept of a metonymy accesses one's knowledge structure. I investigate if and how the access site differs by degree of figurativity. I show that a lexical concept accesses different levels of cognitive model profile by degree of figurativity. A lexical concept of less figurative metonymies accesses primary cognitive model profile (strong conceptual contiguity, e.g. Shakespeare is the top of shelf), whereas that of highly figurative metonymies accesses secondary cognitive model profile (weak conceptual contiguity, e.g. The ham sandwich asked for the bill). This approach emerges a special class of metonymies that are not even figurative - non-figurative metonymy. In non-figurative metonymy, the lexical concept accesses its attributions rather than cognitive model profiles (no or extremely tight conceptual contiguity, e.g. The book is a history of England). By focusing on the conceptual contiguity in the light of the LCCM theory, I characterise all metonymies as a unified linguistic phenomenon. This reveals that metonymy is on a continuum with other sorts of linguistic phenomena.

Doris Schönefeld

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English complement constructions: Object raising constructions

English complement clauses are known to have various forms, no matter whether they represent subject or object clauses. The paper at hand reports on an empirical study of the type of non-finite object complement clauses with retained subjects shown in (1):

- 1) I didn't actually see him take it away <,,> (ICE-GB:S1B-066 #188:2:B)

Such constructions have been discussed under various labels, such as the one just used (Graustein 1980), small clauses (Basilico 2003) raising-to-object patterns/constructions (Runner 2006, Noel & Coleman 2010), accusative and/with infinitive constructions (alluding to the Latin accusativus cum infinitivo (Acl-) construction) (Fischer 1989, Lødrup 2008), or (bare) infinitive complements (Mittwoch 1990), all of them carrying their own theoretical load. The study at hand is situated in a usage-based construction-grammar framework. It aims at the 'bottom-up' identification of the nature of this raising construction, in particular its schematicity. We suggest that the template subsumes a number of more specific (sub-) constructions correlating with (groups of) the finite verbs they complement, and that there are further constraints on the non-finite verbs they attract. To test these assumptions, English usage data extracted from the British component of the International Corpus of English (ICE-GB) were analysed quantitatively. In particular, the data were submitted to several types of collocation analysis (cf Stefanowitsch & Gries 2003, 2009, for example). In a first step, the statistical measures of collocation strength and delta P, as well as the type and token frequencies of the raising verbs found are interpreted against the hypotheses made. Additional information on the exact specification of the constructional candidates is gained from a comparison with other object-raising patterns, such as to-infinitives and participial constructions, also allowing for the elucidation of (some) interrelations between these constructions which go beyond the 'raised object' that is common to all of them.

María José Serrano

Universidad de La Laguna

Syntactic variation in cognition: The placement of verbal objects and postverbal subjects in situated interaction

The purpose of this work is to advance in the study of variants at morphosyntactic level as undetachable from the creation of meanings in interaction and discourse. We depart from the idea that variation at morphosyntactic level is always meaningful and it is explainable through cognition (Author 2011:169-175, Author & Author 2013: 26-31). Conceptualization of cognitive salience and informativeness will be handled to reach a scientific explanation of the variable position of verbal object in those clauses where the subject is placed after the verb. The postverbal subject has proved to underline or stress its referent by means of informativeness: 'Hoy cocinas tú' ('You (posv.) cook today') (Author & Author 2013:119-140). However, a more precise and detailed analysis of this variant must include the possible presence of a verbal object in between the subject and the verb: 'Hoy cocinas las lentejas tú' 'You (postv.) the lentils cook', and also in final position: 'Hoy cocinas tú las lentejas' ('You (postv.) cook the lentils'). The cognitive status of the object may also influence that of the subject and the whole clause, thus we hypothesize that placement of the object in either VOS and VSO orderings entail different perceptions of events: in the latter the object should be more salient and less informative than the subject, whereas in the former the object is informative and the subject remains salient. Syntactic variants will convey qualitative reflection across different texts and interactions and serve communicative goals helping to create stylistic meanings whose interpretation can be grounded on gradual dimensions of subjectivity and objectivity, as we have demonstrated in previous studies (Author & Author 2013:143). In order to determine the

communicative style achieved by variants, we will analyze its social and situational distribution in texts from an oral corpus of contemporary Spanish named Corpus Conversacional del Español de Canarias (CCEC).

Christopher Shank

Bangor University

Koen Plevoets

University of Ghent

Contrasting that/zero variation in mental state (MSVs) and verbs of locution (VoLs): A diachronic corpus based multivariate analysis

This paper examines the diachronic development of that/zero complementation alternation, and related claims concerning 13 structural factors as predictors of the presence of the zero form, with five verbs of locution (VoLs), viz. say, tell, assert, declare, and state and ten mental state verbs (MSVs) viz. think, suppose, believe, imagine, expect, guess, feel, know, understand and realize from 1640-2013. Using Wordsmith, a total of 88,000 hits (for all 15 verbs) were randomly extracted from separate parallel spoken and written corpora: CEEC and Old Bailey Corpora (1640- 1913), CMET and CLMETEV (1640-1920), London Lund (1960-1990), ANC (1990 - 1993), CoHAE (1810-2009), BNC spoken (1980-1993) and CoCA (1994-2012) corpus. All of matrix plus complement that/zero constructions were coded for 28 structural variables including person, tense, polarity, and presence of modal auxiliaries, syntactic complexity, and complement clause subjects. Statistically sufficient sample sizes ($n > 40$) for all historical periods were extracted and a diachronic regression analysis is used to examine the statistical significance of 13 structural factors (as summarized in Kaltenbock 2004 and presented in Torres Cacoullos and Walker 2009) in regards to the selection of that/zero development in both spoken and written genres for all fifteen verbs. The results reveal varying degrees of significance for each of the 13 matrix and complement clause features, however; stronger significance and implications are revealed when additional variables (e.g. polarity, length of the subject, the effect of time as a variable etc.) are incorporated via a 'weighted' variable analysis. These findings are used to identify the structural factors which are diachronically significant in predicting the presence of the zero complementizer form within and across both sets of verbs and to set up a discussion concerning the implications for using this type of statistically driven diachronic approach.

Yoshikata Shibuya

Kyoto University of Foreign Studies

Constructional change in the English attributive and predicative adjectival constructions

Traditionally, adjectives are often studied in synchronic terms. Previous accounts have also had a tendency to be small in scope, often discussing a small set of adjectives. This paper sets out to contribute comprehensively to the study of English adjectives from a diachronic perspective by discussing two major adjectival constructions: the attributive (e.g. cheap cars) and predicative (e.g. Energies are low) adjectival constructions. This is an empirical study, based on quantitative analyses of a sample taken from the Corpus of Late Modern English Texts (CLMET3.0) and the Diachronic Corpus of Present-Day Spoken English. The former corpus holds data from 1710 to 1920, while the second corpus contains data from the late 1960s to the early 1980s and also from the 1990s. Drawing from analyses of these corpora, the author shows how the English attributive and predicative adjectival constructions developed from 1710 to the 1990s, arguing that these constructions changed their properties in their own unique way. The author first uses distinctive collexeme analysis (Gries and Stefanowitsch 2004) in order to characterize the two constructions in terms of the association strength between adjectives and the constructions. It is shown that the two constructions are associated with a different set of adjectives in each sub-period (e.g. dead, next, and silent were top 3 in the predicative construction from 1710 to 1780). The author then moves on to the results of a hierarchical agglomerative cluster analysis and reports that in the predicative construction, adjectives like dead, silent, and equal remained dominant since 1710, while true, abundant, and scarce are relatively new additions to this construction. For the attributive construction, on the other hand, particular, new and last remained dominant since 1710, while British, early and local are new additions to the construction.

Kazuko Shinohara

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Shigeto Kawahara

Keio University

Iconic trans-modal symbolism: Case studies on personalities and emotions

An extensive body of previous studies has suggested that there are some non-arbitrary relationships between sounds and meanings, contra Saussture's doctrine of arbitrariness. Our study tries to locate sound symbolism in a more general perspective: sound symbolism is considered as one instance of a more general "iconic trans-modal symbolism" (ITMS). We offer two cases of ITMS, which go beyond the traditional notion of "sound" symbolism. We empirically demonstrate that particular types of personalities and emotions can be iconically related to not only particular types of sounds but also particular types of shapes. Our study consists of two experimental case studies. The first experiment shows that particular types of personalities can be iconically related to particular types of shapes

and sounds. More specifically, we show that “inaccessible types of personality” are iconically associated with angular shapes and obstruents. The second experiment shows that similar relationships hold between particular types of emotions, shapes, and sounds. In particular, emotions with abrupt onsets like “surprise” and “shock” are associated with angular shapes and obstruents. Among these tripartite relations, the connection between sounds on one hand and personalities/emotions on the other adds to the large body of literature on sound symbolism. The other connection—the direct link between personalities/emotions and shapes—goes beyond traditional cases of sound symbolism, instantiating a case of ITMS. Previous studies on sound symbolism have provided acoustic explanations for the associations that involve sounds; for example, abrupt changes in the amplitude of sounds are projected onto abrupt changes in moods of people, and those of visual directions of tracing, which may be the basis of the iconic trans-modal associations that involve sounds. However, we need to provide more general motivations for ITMS, since ITMS includes cases of non-sound iconic trans-modal symbolism.

Ana Carolina Sperança-Crisuolo

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Subordinate noun clauses in quotations: A functional and cognitive approach

Subordinate noun clauses, as everybody knows, can act as direct objects filling the slot of an argument to complete the meaning of a verb. Instead of saying a sentence as I need water, in which water serves as a nominal direct object, we can say: I need that you keep the doors closed, in which the subordinate clause serves as a direct object. The aim of this paper – assuming Bybee (2010) statement that language is an adaptive complex system – is to explore the adaptation of such clauses for conveying other people voices in a text, as in Chris Fowler said that the Heisman Trust have never given him editorial direction; or in “They’ve never said one thing to me about the content of the show” he said. There are three important issues in this subject, in our view: the first one is the correlation between these kind of subordination and different text genres as daily speech, newspaper editorials and novels. The second is the nature of the elocution verbs that introduces those noun clauses, that vary considerably as we can see in: JP Morgan maintained that “all personnel acted in good Faith” in the Mad off matter; “Sorry, Harlequin”, She sighed tenderly, “I’m reading something else”. For analyzing cognitively the choice of those verbs, we used the theory of “mental imagery” proposed by Bergen (2012). According him, as listening or reading a text, we create mental bodily experiences of perceptions, simulating then in absence of their external manifestation. The third issue is the adaptation of elocution verbs for introducing our own voices, as: I say she is cheating me; I didn’t say she is cheating me. The functional aspect of this behavior can be explained, we think, as an illocutional evidential tool or a hedge for protecting face.

Gale Stam

National Louis University

Verb framed, satellite, framed or in between? A second language learner's thinking for speaking in her L1 and L2 after fourteen years

Slobin (1991) has proposed that children learn a particular pattern of thinking for speaking in first language (L1) acquisition, and Stam (1998) has argued that second language (L2) acquisition often entails learning a different pattern of thinking for speaking. Cross-linguistic motion event research has shown that Spanish speakers and English speakers have different patterns of thinking for speaking about motion linguistically and gesturally (for a review, see Stam, 2010). Spanish speakers express path linguistically on verbs, and their path gestures tend to occur with path verbs, whereas English speakers express path linguistically on satellites, and their path gestures tend to occur with satellite units. Stam (2006) has shown that the English narrations of Spanish learners of English have aspects of their first language (Spanish) and aspects of their second language (English) thinking for speaking patterns in both speech and gesture. She has further shown that these patterns can change (Stam, 2010): an L2 learner's thinking for speaking about path in English became more native-like, but her thinking for speaking about manner did not. This raises several questions: Do learners' L2 thinking for speaking patterns continue to change with regular use of the L2? Does this also affect their L1 thinking for speaking patterns? To investigate these questions, motion event narration data gathered in 2011 was compared with data from 1997 and 2006 to examine how the learner's expression of path and manner linguistically and gesturally in her L1 (Spanish) and L2 (English) changed. The results indicate that the learner's gestural expression of path continued to change in both her L1 and L2 and that her gestural expression of manner changed in her L2 between 2006 and 2011. This change suggests that manner is not resistant to change after all (Slobin 1996; Stam 2010) and thinking for speaking is not static.

Liane Stroebel

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The architecture of source domains or how source domains shape our languages

An analysis of over 2000 French verbs revealed that the majority (if not all) can be traced back to just three dominant source domains "Embodiment", "Nature" and "Instruments". In other words, the polysemy of these verbs is based on the articulation of the conceptualisation of these three cognitive pillars (e.g. French *comprendre* (< Latin *prehendere* 'take' [EMBODIMENT]), *monter* (< Latin *mons* 'mountain' [NATURE], *accrocher* (< *crochet* 'hook' [INSTRUMENT]) and combinations of them (e.g. French *arriver* (< *ad ripam ire* 'to get to the other shore' [EMBODIMENT & NATURE])). These three main domains contain multiple individual, but also shared subcategories and parameters:

1. 'go up'

a. French: monter “Mountain”: [NATURE], [-animated], [+static], [+orientation], [+direction], [+form], [+extension], [+final point], etc.

b. German: steigen “Manner of motion”: [EMBODIMENT], [-static], [+orientation], [+/-direction], [-form], [+extension], [+final point], etc.

c. Spanish: subir “Directed Motion”: [EMBODIMENT], [-static], [+orientation], [+direction], [-form], [-extension], [-final point], etc.

Due to time limitations, the complexity of this model with its different hierarchical levels cannot be illustrated in its totality. Therefore, the focus will be on a case study of two particular verb groups, namely motion verbs (dynamic verbs) and posture verbs (static verbs), with the aim to demonstrate the influence of the source concept with its semantic restrictions over the synchronic usages of these verbs. In the talk, the relation between one single source domain and its different target domains as well as the semantic network between different source domains and their possible target domain(s) will be analysed with the help of frames. Furthermore, the results of the French verb groups will be contrasted with prominent members of these verb groups in English, Spanish and German, with the aim not only to explain the existing interferences, but also to underline the universal character of the source domain architecture.

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Representation of space-time relation in Russian-speaking students’ oral narrative

The aim of this research is to study multimodal representation of knowledge in native Russian speakers’ oral narrative. The part of the research presented in this abstract is a study of multimodal representation of space-time relation in the oral narrative of Russian-speaking students. The main hypothesis of the study is that native Russian speakers use lateral time axis when provide a spontaneous talk about various events with a regard for their relation to the past, present, or future. This idea was proposed by D. Casasanto in “Hands of Time” and applied to the English language. We specified this hypothesis for the study of Russian oral narrative by suggesting that in a spontaneous talk one uses left-handed gestures when talks about the past and right-handed gestures when talks about the future. We conducted an experiment involving 14 first year students speaking about

events which made, make or will make them feel happy. We divided the narrative into two modalities, verbal and gestural. Analysing verbal data we divided interviews into events of three groups relating to the past (37 events), present (22) and future (6). Then we analysed gestural data applying the Method of Gesture Analysis developed by C. Müller and her colleagues [Cienki 2010]. Gestures were divided into three groups: right-, left- and two-handed. Then we compared the two sets of data to find out what the correlation is between handedness and time described verbally. To measure the correlation we applied a χ^2 method. The research proved the original hypothesis. Speaking about the events of the past informants made gestures with their left hands more often ($\chi^2 = 7.32$; $df = 2$; $p = 0.05$), whereas speaking about the events of the future they used right-handed gestures more frequently ($\chi^2 = 18.45$; $df = 2$; $p = 0.001$).

Magdalena Sztencel

Newcastle University

Conditionals in an individual mind: A view from the multiple-trace theory of memory

1. This study places itself within a growing body of research which does not presuppose the dual-processing (context-independent decoding, then context-dependent inferring) model of utterance interpretation (see e.g. Hintzman 1986, Bilgrami 1992, Gibbs 2002, Recanati 2005, Barsalou 2005). From a psychological perspective, it implements a multiple-trace theory of memory (Hintzman 1986), whereby (cognitive) context has direct influence on interpretation. I refer to this sort of approach as WHOLLY PRAGMATIC. 2. I focus on the word 'if', which has been the locus of an – thus far – unresolved debate between supporters of the Material Implication (MI) semantics of 'if' (pro-MI camp) and those who argue against it (anti-MI camp). The pro-MI camp can explain why not all conditionals diverge from MI and, if they do, how it happens (e.g. Grice 1989). The anti-MI camp draws attention to conditional BELIEF divergences from MI. These cannot be explained away in conversational terms and motivate the rejection of a truth-based theory of conditionals (Edgington 1995, Oaksford and Chater 2003) – along with a way of explaining why not all conditionals diverge from MI. The problem is that both sides seem to have strong and convincing, yet mutually-exclusive arguments. 3. From the perspective of a wholly pragmatic approach, I argue that the (unnecessary) disagreement is due to the problematic assumption that there is such a thing as en/decoded (linguistic) semantics. 4. Using data from social psychology (Beller 2002), I discuss an important semantics-pragmatics asymmetry in the false processing of conditionals. I demonstrate that MI-based processing is wholly context-dependent – i.e. that it cannot be driven by linguistic en/decoding. I argue that crucial to the interpretation of if-utterances is Horton & Gerrig's (2005) extension of a multiple-trace theory of memory into the study of common ground. This approach allows explaining why not all conditionals diverge from MI, without commitment to the problematic notion of en/decoding.

Aleksandra Szudy – Sojak

Wyższa Szkoła Bankowa w Toruniu

Effectiveness of cognitive linguistics perspective in teaching polysemous body-related items

The aim of the paper is to present results of a series of experiments (in progress) carried out on a distant learning platform. The experiments evaluate the assumed hypothesis of effectiveness of cognitive linguistics perspective in teaching polysemous body-related expressions. Participants of online English courses have been randomly divided into experimental and control groups. The students are young adults at the B1 level of language competency who study English as a foreign language as part of their college curriculum (their major is banking/ management). Students in both groups are supposed to familiarize themselves with the same sets of body-related expressions (eye, foot, hand, head, heart, leg, stomach). Different types of instruction in the groups are used: the control groups are presented with the extended meanings of the anatomical words with the simple instruction to memorize them (traditional rote learning), while the experimental groups are shown the networks between extended meanings and the literal ones by focusing on the metaphorical nature of language. In the experimental groups, students' attention is drawn to the main tenet of cognitive linguistics – that of conceptual metaphor in terms of mappings and correspondences between the target and source domains – in order to emphasize the nature of meaning motivation processes. Students are encouraged to use their general knowledge about the shapes, gestures and functions of particular body parts in order to figure out the extended meanings of simple anatomical words. It is assumed (and so far supported by the pilot experiment results) that rising students metaphorical awareness promotes firmer linguistic entrenchment. Also with the growing trend of using digital media in foreign language education, this embodied aspect of technology-based instruction can complement the otherwise missing element.

Vittorio Tantucci

Lancaster University

Immediate and extended intersubjectification: The case of the presuppositional construction [you don't want x] in British and American English

This work provides a theoretical and methodological contribution to the heated discussion on intersubjectivity and intersubjectification (Traugott 1999, 2002, 2003, 2010, 2012; Nuyts 2001, 2012; Verhagen 2005; Narrog 2010, 2012). I will argue that intersubjectivity, intended as the subject's awareness of the other persona(s)' feelings, knowledge and beliefs, can be construed alternatively on an 'immediate' and on an 'extended' level. Immediate intersubjectivity (I-I) corresponds to the mutual awareness of the speech participants during the on-going speech event, whereas extended intersubjectivity (E-I) includes an assumed 3rd party (specific or generic) who has an indirect social bearing on the utterance (cf. Tantucci 2013). Along a unidirectional cline of change, extended

intersubjectification will be demonstrated to constitute a further stage of semantic and grammatical reanalysis with respect to its immediate counterpart. In this usage-based study, I will first analyse quantitatively and qualitatively the immediate and extended intersubjectification process of [you don't want x] in the COHA(1) during each decade from 1810 to 1910 drawing a diachronic semantic map (cf. Anderson 1986; Van Der Auwera and Plungian 1998; Haspelmath 2003; Croft 2003; Narrog 2010) of the reanalysis of the chunk over the 100 years considered. I will then provide a comparative set of data gathered from the study of all the occurrences of [you don't want x] in the American and British sections of the Brown Family corpora from 1928 till 2009. I will then discuss the results of a survey on the DCPSE(2) regarding the diachronic increase of immediate and extended intersubjectified usages of the same construction in spoken BE and AE from 1950 and 1990. Finally, I will provide a comparative corpus enquiry on the present-day distribution of immediate and extended intersubjectified usages of [you don't want x] in the spoken section of the BNC(3) and the Longman Spoken American Corpus.

(1) Corpus of Historical American English

(2) Diachronic Corpus of Present Day Spoken English

(3) British National Corpus

Piia Taremaa

University of Tartu

Some space for manner of motion verbs: What do motion verbs prefer?

The way we talk about space when describing something moving has been an interest for many linguists. In cognitive linguistics, there is no motion without Talmy's (1985) lexicalisation patterns. Also, the goal-over-source principle proposed by Ikegami (1987) and Verspoor et al. (1999) stating the goal preference for human mind is well-known and attested in many languages (e.g., Pajusalu et al. 2012), but also questioned by many researchers as different motion verbs behave differently (e.g., Nikitina 2009, Stefanowitsch and Rohde 2004). However, little attention has been paid to the fact that not only motion verbs in general but manner of motion verbs particularly do not form a homogeneous group. Moreover, as manner verbs are typically ill-defined, the very different types of manner verbs are rarely studied in detail. In my presentation, I aim to show how different types of motion verbs combine with different spatial relations. The corpus study focusing on manner verbs covers approximately fifty most frequently occurring Estonian motion verbs. The preliminary results indicate that the choice of spatial relations is dependent on the semantics of a motion verb, giving evidence for the consistent windowing tendency: The verb and the spatial expression tend to window the same portion of the path. That is, goal verbs combine preferably with goal, source verbs with source, and manner verbs with location/trajectory expressions. Nevertheless, manner verbs may exhibit various patterns. For instance, verbs expressing aimless motion combine mostly with the location/trajectory, whereas those describing fast motion tend to combine with the goal. These findings suggest that manner verbs (i) do involve some backgrounded meaning of directionality and (ii) this directionality is present to different degrees.

Anna Theakston

University of Manchester

Sarah Keeble

University of Manchester

Grzegorz Krajewsk

University of Warsaw

Anna Woollams

University of Manchester

The influence of verb semantics on the acquisition of the English past tense

Verb semantics has long been associated with the acquisition of past tense marking. Adopting Vendler's (1967) aspectual categories, researchers have observed that children first mark the past tense on verbs denoting accomplishments and achievements, only gradually extending to activities and states (Bloom et.al., 1980; Shirai, 2010). However, much previous research is based on observations for only a subset of early verbs, thus it is unclear how pervasive semantic effects are. Furthermore, the relation between verb regularity and semantics is unclear, with conflicting results reported. Only some studies employ stringent criteria for the mapping of verbs to aspectual categories, making it difficult to ascertain what properties children are sensitive to, whilst some have questioned the adequacy of 4 aspectual verb categories, arguing for further sub-distinctions and contextual effects. We adopted a wug-elicitation technique to test the effects of verb semantics on English children's past tense production. 193 English-speaking children (2;6-3;5) participated. 200 different verbs were elicited. Verbs were categorised according to Vendler's aspectual categories (Analysis1), and rated by 100 adults on likert scales relating to individual semantic properties (punctuality, endpoint, observable outcome, energy required, dynamic) to determine the precise aspects of meaning associated with accurate verb use (Analysis2). Mixed effects models were fitted to the data. Analysis1 revealed that for irregular verbs children's performance on achievement and activity verbs was better than on accomplishment verbs. Analysis2 provided more precise details - events which had no clear observable outcome, required little energy, or involved change over time had higher rates of accuracy. There were no semantic effects observed for regular verbs in Analysis1, but Analysis2 revealed that performance was higher for events with no clear endpoint. These results will be discussed in the context of both theoretical models of the acquisition process, and practical issues in the application of semantic categorisation criteria.

Enrico Torre

Lancaster University

Linguistic metastabilities: A case-study on Italian idioms

Recent developments in the study of figurative language have overturned the traditional view of idiomatic constructions as frozen linguistic items, showing instead that they display an inner organization and can undergo structural modification, just like more “regular” expressions (e.g. Langlotz 2006; Naciscione 2010). In the present contribution, I will outline the results of an empirical investigation of the occurrences of a sample of Italian idioms, drawn from the large web-based corpus itTenTen, interrogated with the aid of the online corpus-query system Sketch Engine. The tendencies observed in my analysis suggest that the behavioral patterns of idioms in use can be satisfactorily explained by adopting a dynamic-systems approach, which takes variation rather than stability as a main drive (e.g. Thelen and Smith 1994; Rączaszek-Leonardi and Kelso 2008). Indeed, each idiom seems to be governed by a principle of causal circularity (e.g. Kelso 1995, 2008): on the one hand a bundle of formal, semantic/pragmatic, affective, cognitive, and socio-cultural factors works as an attractor state (cf. Cameron and Deignan 2006; Gibbs and Cameron 2008), constraining the possible uses of the construction; on the other hand, the bulk of actual occurrences of the construction in context constantly (re-)shapes the attractor state. This persistent tension lies at the roots of linguistic variation and leads the system into a state of metastability, where linguistic events can be conceived as networks of attractor states. In this landscape, the utterances tend to converge to specific constructions (the attractors states) over time, but they remain sensitive to the temporary dynamics of the ongoing interaction (e.g. Rączaszek-Leonardi 2013). From this perspective, the linguistic system simultaneously displays a certain degree of stability and plasticity (cf. Bressler and Tognoli 2006; Kello et al. 2008; Kelso 2012).

Sarah Turner

University of Birmingham

Assessing metaphoric competence in EFL learner writing

The study of metaphor has enjoyed significant interest in recent years. Far from being considered a mere rhetorical or poetic device, metaphor has now been shown to play a fundamental role in human language and cognition. Numerous studies have illustrated the high frequency of metaphor in discourse, with Steen, Dorst et al. (2010), for example, showing that 18.5% of lexical items in academic texts were metaphorically used, 16.4% of news texts. These figures are hardly surprising given the wide range of functions metaphor has been shown to perform in discourse (Semino 2008). However, despite its prominence and utility in discourse, learners of English have been shown to struggle with both the production and comprehension of metaphor (Littlemore 2001, Kathpalia and Carmel 2011), to the point where they frequently avoid using metaphorical senses of words (Danesi 1992). This ‘over-literality’ (Danesi 1995: 4) of non-native speech and writing is a barrier to fluency and native-like language use, and ‘metaphoric competence’ should thus be considered an important aspect of language teaching and learning (Littlemore and Low 2006). This presentation considers

how metaphoric competence can be measured in learner writing. The Metaphor Identification Procedure ('MIP'), developed by the Pragglejaz Group (2007), constitutes a significant tool in empirical research into metaphor. However, its use in investigating metaphoric competence in EFL learners only shows part of the picture, as metaphor use is also closely linked to such areas as phraseology, creativity and pragmatics, areas excluded from the MIP. This presentation uses an investigation of metaphor use in a small corpus of learner English to exemplify these links, before proposing a number of ways in which the MIP can be expanded to facilitate research into metaphorical competence.

Mark Tutton

University of Nantes

Judith Holler

Max Planck Institute for Psycholinguistics

Gesturing when common ground exists: Is gesture rate determined by cognitive load or communicative context?

Common ground (CG), i.e. the knowledge, beliefs and assumptions that interlocutors mutually share in interaction, is fundamental to successful communication (Clark, 1996). An increasing number of studies have shown that speakers use co-speech gestures at the same rate (or even higher) when they share CG as opposed to when they do not (e.g. Campisi & Ozyurek, 2013; Holler & Wilkin, 2009; Holler, Tutton & Wilkin, 2011). There are two alternative explanations for this finding. On the one hand, it has been argued that mentally representing our addressee's knowledge can require considerable cognitive effort (Pickering & Garrod, 2004). Hence, gesture rate may be high in CG contexts because the cognitive effort involved in mentally representing CG is considerable. In contrast, this high gesture rate may be due to the fact that gestures play an important communicative role, even when conveying information that is already mutually shared (Holler & Wilkin, 2009). The present study tested these two hypotheses by combining the manipulation of CG with a manipulation of communicative context. We used a 2(CG) x 3(communication context) between-participants design (18 participants per condition, N=108). All participants watched a short film and narrated it to their addressee. Addressees had either seen parts of the film together with the speaker (CG) or not (no-CG). In addition, we manipulated communicative context by asking speakers to narrate their story either face-to-face, via an occluding screen, or into a tape-recorder, a manipulation that has been shown to affect gesture rate in no-CG contexts (Bavelas et al., 2008). Our results revealed a significant main effect of communicative context, with gesture rate being highest in the face-to-face condition, followed by the screen condition, and lowest in the tape-recorder condition. Importantly, we did not find a main effect of common ground on gesture rate, and no interaction between our two factors. This finding supports the hypothesis that gestures representing CG information are communicatively intended as opposed to being triggered by an increased cognitive load.

Andrea Tyler

Georgetown University

Narges Mahpeykar

Georgetown University

A principled polysemy account of the semantics of English phrasal verbs

Many attempts have been made to discover some systematicity in the semantics of phrasal verbs. However, most research has investigated the semantics of particles exclusively; no study has examined how the multiple meanings of the verb also contribute to the meanings of phrasal verbs. The current corpus-based (COCA) study advances the research on phrasal verbs by examining the interaction of the polysemy networks of both the verb and the particle in four phrasal verb constructions: get up, take up, get out and take out. Following the CL-based methodology set out by Tyler and Evans (2003) for analyzing the semantics of particles, in conjunction with Langacker's (1991) analysis of the semantics of verbs, a replicable polysemy analysis of the semantics of get and take was established. The polysemy networks for both the verbs and the particles laid the foundation for investigating the multiple meanings of the phrasal verbs found in the corpus. The CL-based analysis of the semantics of the phrasal verb constructions provides evidence for the compositional nature of phrasal verbs, showing that the multiple meanings can be systematically accounted for through the interaction of the polysemy networks of the component verbs and particles.

Lore Vandevoorde

University of Ghent

Gert De Sutter

University of Ghent

Koen Plevoets

University of Ghent

A cognitive-sociolinguistic approach to meaning: Visualizing the semantic structure of inchoative verbs in Dutch through translational corpora

Recent years have witnessed an increasing interest within the Cognitive Linguistics community for sociolinguistic stratification of language structure, and more particularly semantic structure (Coleman, 2010; Geeraerts, 2010; Kristiansen & Dirven, 2008). This trend towards Cognitive Sociolinguistics is accompanied by a trend towards more usage-based research and more statistical analyses. In Corpus Based Translation Studies, cognitive linguistic theory has recently been introduced as a way to formulate explanatory hypotheses for translational phenomena (Halverson 2003, 2007, 2010; Rojo & Ibarretxe-Antuñano, 2013). The current paper originates at the interface of Cognitive Sociolinguistics and Cognitive Translation Studies. It purports a corpus-driven, statistics-

based method for the visualization of the structure of semantic fields which allows for intralingual (between registers, between translated and non-translated language) comparisons. These visualizations can help us to understand the mental schemata that lie at the basis of translation and register-specific text production as a cognitive task. We map out the semantic field of the Dutch inchoative verb *BEGINNEN* through an extension of Helge Dyvik's Semantic Mirroring technique (1998, 2004), which is based on the idea that translations can be used to identify different senses of a source language word. First, all French translations of the Dutch lexeme *BEGINNEN* are checked manually in the Dutch Parallel Corpus (n=292), resulting in a set of 11 unique French translations (the T-image). Then, inversely, all translations of the 11 T-image lexemes back into the initial source language are looked up (n=823), resulting in 23 unique Dutch lexemes (the Inverse T-image). Finally, the French translations of the Inverse T-image are again queried from the corpus (the Second T-image) (n=7079). We use the (source language) frequencies of the Second T-image and apply the statistical technique of correspondence analysis for visualizing the semantic field of Dutch inchoativity (Greenacre, 2007; Lebart et al., 1998). By doing so, we are able to generate visualizations of the semantic field of *BEGINNEN*. By using the (target language) frequencies of the Inverse T-image, we can interlingually compare visualizations of original with translated language. The visualized results show structural resemblances and small but noteworthy differences in the semantic fields of original texts and translations. Translation seems to flatten meaning difference, with lexemes clustering closer together in translation, especially in the prototypical center of the semantic field. Finally, our method also allows for register-specific visualizations of the semantic field under study for the five text types available in the corpus.

Daniel Van Olmen

Lancaster University

Retrospective directive constructions and the meaning of the imperative

Only two Indo-European languages in Europe possess so-called retrospective imperatives (Bosque 1980): Spanish and Dutch, as in “haber venido ayer!” [have come yesterday] and “had gisteren gekomen!” [had yesterday come] ‘you should have come!’. This paper argues against both ‘reductive’ analyses as optatives or hidden conditionals (Bennis 2007, Biezma 2010) and analyses as ‘straightforward’ imperatives (Proeme 1984, Vicente subm.). They fail to explain, inter alia, the constructions’ directivity and prototypical function, their crosslinguistic scarcity and the occurrence of nonoptative particles and the subject’s absence in Dutch. In a way, the present analysis offers a middle ground. The constructions are regarded as the typologically plausible outcome of a network à la Goldberg (1995: 180-198). For Dutch, the counterfactual conditional inversion construction is argued: 1. to acquire the functions of reprimand and call for justification; 2. to be insubordinated (see Evans 2007 on the process’s role in the directive domain across languages); 3. to lose its subject (see Aikhenvald 2010 on the nonfiniteness of imperatives) by formal as well as functional analogy with the imperative construction, which is facilitated by the optative construction and the variation between the conditional imperative construction and the conditional inversion construction. A similar account is proposed for Spanish. The nonexistence of retrospective imperatives in English and German, which have the same ‘source’ constructions and insubordination patterns as Dutch

(D’Hertefelt 2013), is attributed to, inter alia, morphological differences between the inverted auxiliary and the imperative and different degrees of specialization of the conditional inversion construction (Van den Nest 2010). More generally, the paper shows that there is no need to postulate some abstract schema for the imperative in which directivity is omitted or backgrounded (Dancygier & Sweetser 2005, Takahashi 2012) to account for its atypical uses. They can be explained in terms of constructional networks (see Fortuin & Boogaart 2009 on the conditional imperative too). Such a schema is inevitably too broad and unlikely from the perspective of exemplar theory.

Lorella Viola

University of East Anglia

Italian dubbing from pragmatic interference to language change: Evidence from the analysis of a back-channel signal and a greeting formula

There exists a number of studies (i.e., Pavesi 2005) concerning Italian dubbing which claim various linguistic expressions to be interference phenomena due to the audio-visual translation (AVT) process from (American) English. These studies also state such expressions have affected the end users’ language. However, no empirical evidence of such an influence has been provided so far. This research aims to empirically assess whether Italian dubbing can be considered as an agent in pragmatic language change. For this purpose, a total of 72 linguistic expressions have been gathered and categorised in the light of the definition of pragmatic interference adopted throughout (Thomas 1983): linguistic formulas that appear similar in their meaning or structure are transferred from one language into the other. Three main categories stemmed from our review analysis: pragmatic markers (sub-categorised in metadiscourse markers, attention getters, modality markers), formulaic language (including forms of address, rituals, greetings and farewells), and fixed expressions (simple formulas, sayings, similes). A diachronic, lexicographic and quantitative analysis carried out within dictionaries and corpora of written Italian (DiaCORIS, CORIS) led to a shortlist of 57 phenomena most likely to have been affected by pragmatic interference from dubbing. From this investigation, 58 items have been identified and their presence and frequency searched within spoken Italian corpora (LIP; LABLITA; CLIPS). In this paper, the results of one back-channel signal and one greeting formula are presented: *esatto* (exactly) and *buona giornata* (have a nice day). The findings strongly indicate that, at the pragmatic level, an influence from dubbed Italian on spontaneous Italian cannot be excluded.

Nikola Vukovic

University of Cambridge

Yury Shtyrov

Aarhus University

Embodiment of meaning in first and second language: An EEG spectral (de)synchronization study

Understanding neurocognitive mechanisms supporting the use of multiple languages is a key question in language science. Recent neuroimaging studies in monolinguals indicated that core language areas in human neocortex together with sensorimotor structures form a highly interactive dynamic system underpinning native language comprehension. While the experience of a native speaker promotes the establishment of strong action-perception links in the language comprehension network, this may not necessarily be the case for L2 where, as it has been argued, the most a typical L2 speaker may get is a link between an L2 wordform and its translation equivalent. Therefore, we asked whether the motor cortex, thus far absent in bilingualism research, shows differential responses depending on the language of the stimuli and their action semantics. We used EEG to dynamically measure changes in motor activity, indexed by event-related desynchronisation (ERD) of the cortical mu-rhythm, in response to L1 (German) and L2 (English) action words in a passive reading task. Analysis of motor-related EEG oscillations at the sensor level revealed an early (around 200 ms) and left-lateralised coupling between action and semantics during both L1 and L2 processing. Crucially, source-level activation in the motor areas showed that mu-rhythm ERD, while present for both languages, is significantly stronger for L1 words. This is the first neurophysiological evidence of rapid motor-cortex involvement during L2 single word reading. Our results both strengthen embodied cognition evidence obtained previously in monolinguals and, at the same time, reveal important quantitative differences between L1 and L2 sensorimotor brain activity.

Lara Warmelink

Lancaster University

Using WMatrix to detect deception in short interviews

WMatrix is a software program that analyses and compares corpora (Rayson, 2008). It contains several British National Corpus samplers, so that it is possible to compare a corpus to one of the BNC samplers. Comparing to two uploaded corpora is also possible. One academic field where text analysis is used is deception, and detecting deception (Vrij, 2008). The goal of text analysis in this field is to find differences in the statements of truth tellers and liars. Traditionally this has been done by coding the data for particular cues (e.g. level of detail) by reading and scoring it by hand (e.g. Köhnken, 2004). Text analysis can also be done using software (e.g. LIWC). This software has advantages and disadvantages. WMatrix may help detecting deception by analysing slightly different aspects than coding systems already available. In our study we gave 130 participants a task to

perform in the future and told them they'd be interviewed about the task. Half of the participants were told to do task A and tell the truth in the interview, the other half were told to do task B, but lie and say they were going to do task A in the interview. The interviews were very short and were conducted by two different interviewers. The interviews were transcribed and analysed using WMatrix. Comparing the participants' statements between truth tellers and liars shows that truth tellers use more Numbers, Strong obligation or necessity and Using and Liars use more Exclusivizers/particularizers; paper documents and writing; putting, pulling, pushing, transporting; speech: communitative. Other results, implications and limitations of the study will also be discussed.

Przemyslaw Wilk

Opole University

Towards a cognitive model profile of EUROPE in press discourse: A pilot study

The aim of the project is to reconstruct a partial cognitive model profile of EUROPE as manifested in the Guardian. The study is based on a corpus of news items retrieved from the Guardian from May 2004 through December 2009 (approximately 1 million words). To facilitate the process of data analysis, WordSmith Tools 4.0, computer software offering a number of useful text analysis tools, such as wordlist analysis, keyword analysis, or concordance analysis, is used. Since news production is a highly institutionalized process, which translates into the fact that any newspaper is ideologically invested, it is hypothesized that the ideological slat of the Guardian might have some bearing on its conceptualization of EUROPE. The reconstruction of a cognitive model profile of EUROPE is grounded in the LCCM (lexical concepts cognitive models) theory, a theory of lexical representation and semantic composition developed by Evans (e.g., Evans, 2009). Importantly, to be able to explain inherent variation in word meaning (cf. Evans, 2009), we need to account for every aspect of conceptualization, including valuation. Hence, the study attempts to incorporate some constructs of axiological semantics (cf. Krzeszowski 1997) into the LCCM theory, to more accurately reconstruct an ideologically invested cognitive model profile of EUROPE in the Guardian.

Julia T. Williams Camus

University of Cantabria

A contrastive corpus-based study of the use of WAR, VIOLENCE AND AGGRESSION metaphors in cancer popularisation articles in the English and Spanish press

Although the use of lexis related to war and violence is a commonplace in the discourse of illness and disease (Goatly 2007, Semino 2008), few studies have carried out a systematic contrastive study of the actual presence and use from a cross-linguistic perspective. The aim of this presentation is to shed light on the use of metaphorical expressions from the WAR, VIOLENCE AND AGGRESSION

(WVA) source domain in a comparable English and Spanish corpus of 300 press popularisation articles on cancer advances. Although there was degree of similarity in the linguistic metaphors used in the two languages, differences were observed in terms of the frequency and preference of the metaphorical expressions. Thus, the quantitative comparison of the English and Spanish subcorpora showed a greater number of WVA metaphors in the English subsection of the corpus (946 vs. 775 instances) and, when text length was taken into account, a significantly higher metaphor density was found in the English articles (12.14 vs. 7.50 per 1,000 words). Comparison of the ten most frequent WVA metaphorical concepts revealed a tendency in the Spanish press towards the use of consolidated metaphorical expressions from scientific discourse whereas the English subcorpus relied more on images related to violent action. When the actual realisations of WVA metaphorical expressions were examined in the texts, the analysis showed that this system was not always extensively exploited in the articles. In both the English and Spanish subcorpora, the WVA metaphors were unevenly distributed, and in 31.3% and 44% of the articles, respectively, they appeared only sporadically (1-3 instances) or not at all. In articles where these expressions were used more systematically, WVA metaphors were seen to perform a range of important discourse functions either as a single frame of reference or in combination with other metaphorical systems.

May Wong

The University of Hong Kong

Exploring metaphor, metonymy and subjectification in Cantonese slang

This presentation will focus on the notions of metaphorisation, metonymisation and (inter)subjectification as they operate in one domain of Cantonese lexicon, viz, slang expressions. The primary concern is with the pragmatic properties of these expressions in contemporary spoken Cantonese. I will argue that the source meaning of these expressions has undergone what Traugott (1989, 1995, 1997, 1999, 2003, 2007a, 2007b, 2010) calls metaphorisation/metonymisation, and this process of semantic change has been accompanied by the development of pragmatic, interpersonal, speaker-based image schemata (inter(subjectification)). What emerges from the current study is a comprehensive picture of lexical items from a literal domain being used with a non-literal meaning that could be attributed to a body-mind mapping. It seems that conceptual metaphor theory has been able to provide a convincing explanation for why two distinct semantic fields can be seen as the realisation of a conceptual metaphor that connects the two domains at the level of thought in general, and offer a predictive framework for the metaphorisation of semantic meaning in Cantonese slang words in particular. The current study makes a contribution to Traugott and Dasher's (2002) hypothesis that nonsubjective meanings are often recruited to express and regulate beliefs and attitudes and become more subjective and even intersubjective. Although the use of metaphoric, extended meanings of slang words appears to be on the rise, it is to be expected that the older meanings survive alongside the newer ones as polysemes and the older generation is largely immune to it. Further research can perhaps explore the extent to which slang words and colloquial phrases have infiltrated across different sectors of the language community and the effect this has on the prototypicality of meaning in the Cantonese lexicon.

Suwei Wu

VU Amsterdam

Alan Cienki

VU Amsterdam

Linguistic structure, event structure and gesture

It is believed by some that speech and gesture units arise from a single underlying thought (e.g. McNeill and Duncan 2000). What is more, research shows there is a correlation between syntactic encoding and co-speech gesture (e.g. Kita, et al., 2007). Consequently, it becomes important to explore grammar as multimodal, which in turn motivates research on linguistic structures in relation to gesture. Examples include the study on multimodal motion events by Zima (2012), on aspectual cues in relation to gesture by Hinnell (2013) and on multimodal communicative patterns by Feyearts et al (2013). However, as basic categories of human comprehension and production, transitive, intransitive and non-transitive (copular) constructions in English have not been examined in this respect, making them the focus of this study. This study involves analysis of a set of interviews from the Red Hen video data corpus (<https://sites.google.com/site/distributedlitteredhen/home>), which contains 474 clauses in total. The analysis involved annotating the clauses for transitivity (transitive, intransitive or copular), gesture function (representational or not), and semantic content of gesture (e.g. object, action/manner, motion/path, etc.). The preliminary results in the pilot study show the following: 1) There is a correlation between transitivity and gesture; in other words, representational gestures (N=67) tend to be accompanied by transitive and intransitive constructions more often than by copular constructions (19% & 7%). 2) Different constructions tend to be accompanied by gestures specifying different semantic roles. For example, the gestures co-occurring with transitive and intransitive constructions tend to specify the action or motion respectively while those with non-transitive constructions tend to just specify the entity. However, some events like the creation events tend to be accompanied by gestures specifying the objects overwhelmingly, which suggests that the event structure of clauses also plays a role alongside the linguistic structure (transitivity).

Mingjian Xiang

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Who's reading? Rhetorical questions as intersubjective mixed viewpoint constructions in an old Chinese text

This paper deals with rhetorical questions in the Inner Chapters of Zhuangzi, a foundational text of Daoism (4th century B.C.). This text is highly interactionally structured, with a large number of non-information seeking questions, such as rhetorical questions for argumentative purposes (Xiang & Pascual in prep.). Rhetorical questions have interrogative syntax, but the illocutionary force of a

strong assertion of the opposite polarity from what is presented as being ‘asked’ (Sadock 1974; Han 2002). As in English, yes-no questions in Old Chinese can be used as rhetorical questions in certain contexts, lacking grammatical marking and thus being entirely context-dependent. Moreover, there are eight other ways to indicate the occurrence of rhetorical questions in Old Chinese texts (Pulleyblank 1995). These markers may indicate whether the rhetorical question in general appears with an adjective or is used adverbially, or whether it is used to present a comment or a comparison for instance. Our corpus search suggests that there are 110 rhetorical questions in the Inner Chapters, of which 66 instances make use of rhetorical question markers (Xiang & Pascual in prep.). These questions should produce either affirmative or negative answers in the reader’s mind, thereby involving a fictive type of interaction (Pascual 2006, forth.; Xiang & Pascual in prep.). We analyze rhetorical questions as intersubjective constructions (Verhagen 2005, 2008), not just involving a conceptual blend of question and assertion but also a viewpoint blend (Dancygier & Sweetser 2012) of the assumed reader’s perspective and that of the writer’s. Moreover, there are also multiple viewpoint blending chains in Zhuangzi when a rhetorical question is produced by a character in the text (e.g. a talking oak tree), which is meant to be conceptually integrated with the writer (Xiang in prep.).

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Differential effects of modulated speech perception on speech production for Chinese and Japanese speakers

Speakers' fluency relies on accurate feedback of speech production. The current study determines which properties of speech are required for effective production, and whether there is between-language variation in these properties. Chinese and Japanese speakers’ auditory feedback was adjusted either by varying the temporal delay, or by varying the fundamental frequency of the speaker’s auditory feedback. Eighteen Chinese and 18 Japanese participated in a delayed auditory feedback (DAF) and frequency altered feedback (FAF) experiment as subjects and were required to read a set of sentences taken from Harry Potter (Chinese translation for the Chinese subjects and Japanese translation for the Japanese subjects). They were instructed to read according to their normal habit while hearing the modulated feedback voice through a headphone. In DAF experiment, delay times were set with 50, 200, and 400 ms. In FAF experiment the modulation width of pitch (F0) of auditory feedback voice was 6 semitones, and the modulation frequencies of sine-wave were set at 0.05, 0.1, 0.5, 0.9, 2, 4, 6, 8, 10, 12, 14, and 16 Hz. Fluency and variation of pitch in speakers’ productions were measured. Feedback delay slowed speech and reduced variation in produced pitch for both language groups. Feedback pitch change impaired fluency of both language groups, but

affected Chinese more than Japanese speakers in pitch variation production. This is consistent with the finer-grained pitch variation control required for the complex tonal system in Chinese, and indicates that pitch and speed can be controlled independently during speech production. We propose that internal attributes of different language and language experiences might have affected and altered an individual's perception of speech respectively.

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Which features of encyclopaedic descriptions are useful for identifying entities? A case study of animals

The aim of this study was to define the features useful in identifying the entity of animals when describing their encyclopaedic meaning. We performed two experiments to investigate which elements are effective in categorisation. Experiment 1 (participants: 20 native Japanese speakers age 20–50 years): Which features promote Gestalt cognition? Participants were asked to identify 20 animals based on their descriptions in ten dictionaries, in the manner of the game 'Twenty Questions'. Participants who could not answer correctly were asked to describe the type of information they considered necessary for identification. Results suggested that specific features based on participants' personal experience (e.g. 'where it is found' or 'what it eats') and discriminative features from other members of the assumed category (e.g. 'size', 'mottled pattern', etc.) were important for identification. Experiment 2 (same condition as Experiment 1): In addition to the original information obtained during Experiment 1, we performed another experiment using the results of the first experiment. The correct response rate increased or remained at the same level, in comparison with Experiment 1. When participants were able to identify the animals using the descriptions, most used features identified in Experiment 1. Conversely, incorrect answers were frequently given according to the prototype of the assumed categories. For example, without full knowledge of the 'jaguar', subjects selected 'cheetah' from the 'feline carnivores with spots like a leopard' category. 'Small bird' may be a basic-level category; therefore, members ('finch' or 'sparrow') were not distinguished. Conclusions: 1. The features useful for categorisation are triggers to accessing an individual's knowledge or personal experience and qualities that distinguish target animals from other members in the ad-hoc category. 2. Defining the differences between the target animal and the basic-level prototype facilitates cognition effectively when attempting to identify animals by using descriptive text.

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The acquisition of semantically fine-grained ditransitive constructions in Mandarin Chinese by French adult learners

The term “ditransitive” is used to refer to three-argument constructions. French and Chinese both exhibit ditransitive constructions whose central meaning is a caused possession event. It is well known that different types of verbs are semantically restricted in certain ditransitives constructions in Chinese (Liu 2006), while French doesn’t exhibit such restrictions. Furthermore, the French clitic dative ditransitive construction demonstrates a rich construction polysemy (Goldberg 1995) such that it can be used to express not only successful transfer event, but also intended reception, concerned benefaction, concerned malefaction, demonstrative benefaction, etc. (Leclère 1976, 1978, Coleman 2010); these events are expressed by different ditransitive constructions in Chinese: prepositional dative construction, double object construction and preverbal GEI (equivalent to the preposition to) construction. This study examines French learners’ acquisition procedure of Chinese on a three way interface: lexical semantics - construction semantics - syntactic form. According to Goldberg & Casenhiser (2008), the acquisition of new constructions is based on input and could be interfered by pre-acquired forms. Our hypotheses are as follows: learners are supposed to acquire the ditransitive construction paired with central meaning more accurately than other extended form-meaning pairs, and have difficulties in learning the combination im/possibility of different verb classes and construction forms due to interference from pre-acquired languages. Two experiments are carried out: one acceptability judgment task examining learners’ awareness of verb class restrictions in different constructions and their generalization of form-meaning pairs with different constructions in Chinese, and an elicitation task examining learners’ production in describing different but semantically related events. The results show that French learners of Chinese do acquire core ditransitive constructions more quickly and more accurately than extended constructions; the two experiments also show a gap between comprehension and production in construction learning.

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The effect of animacy of nouns in Chinese students’ production of English relative clauses

This study focuses on the effects of cognitive perception on second language learners’ production of English relative clauses. Previous studies about relative clauses in all languages demonstrate that there is a strong connection between the antecedents’ animacy and the relative clause constructions in participants’ native languages as well as their second languages. The present study used a picture description task and a free writing task to explore the effect of animacy, on Chinese students’ production of English relative clauses. Forty-five Chinese college students were recruited as the

experimental group, and they were divided into three subgroups according to their English proficiency level. Five native English speakers were recruited as a control group. The results from the picture description task show that Chinese students behave similarly to native English speakers in that on the one hand, they prefer animate head nouns and subject relative clauses; on the other hand, there is an overwhelming usage of S-S relative clauses when the head nouns are animate, while when the head nouns are inanimate, native English speakers and high proficiency level students tend to vary on the choice of relative clause sentence structures. However, the free writing test has a different result from the picture description task. Of all the participants, no matter whether the antecedent is animate or inanimate, the production of S-S is quite rare, but O-S, O-O and other types of relative clause constructions are used much more frequently. Most of the main clause subjects are animate nouns but the strong influence of the antecedents' animacy has not been found.