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Preface

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This volume contains the papers and posters presented at UK-CLC 2016: 6th UK Cognitive Linguistics Conference held on July 18-21, 2016 in Bangor (Gwynedd).

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Kenny Coventry (University of East Anglia, UK)
Vyv Evans (Bangor University, UK)
Dirk Geeraerts (University of Leuven, BE)
Len Talmy (University at Buffalo, NY, USA)
Dedre Gentner (Northwestern University, IL, USA)

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Where, whither, whence? Spatial language and its acquisition in a Mayan society

Penelope Brown (Max Planck Institute for Psycholinguistics)

Spatial cognition plays a crucial part in normal practical and social life, and children have to rapidly learn the nature of their spatial world and how to talk about where things are and how animates move about in it. A fundamental question is this: To what degree is the task of learning spatial vocabulary influenced by the nature of the particular language children are learning, or by the cultural shaping of interactions involving talk about space? Research on the acquisition of spatial language has tended to stress universals, for example the distinction between 'what' vs. 'where' systems, and children's predisposition to presume certain kinds of spatial meanings (e.g. UP/DOWN, FRONT/BACK/LEFT/RIGHT] guided by properties of the physical world (e.g. gravity) and of the human body.

This talk examines how Tzeltal Mayan children learn a system of spatial description that differs markedly from those in familiar European languages in at least two ways. First, the predominant frame of reference for locating things at all scales is an absolute ('geocentric') spatial frame of reference based on the uphill/downhill slope of the land, and second, there is a richly spatialized vocabulary of relational nouns, positional verbs, and placement verbs that encode shape, orientation, and other spatial properties of objects being located, placed or moved.

I will present an overview of Tzeltal spatial language used in locative and motion constructions, and show how Mayan children learn these terms, highlighting the language specificity of their acquisition patterns and the importance of interactional routines in what and how they learn. Drawing on longitudinal corpora, elicited interactions between children, and natural adult-child interactions, I conclude that Tzeltal children by the age of 6 or 7 have indeed acquired major elements of a 'cognitive style' coloured by the characteristics of Tzeltal language and culture.

Spatial Demonstratives and Perceptual Space: Describing and remembering object location

Kenny R. Coventry (University of East Anglia)

Spatial demonstratives – terms including this and that – are among the most common words across all languages. Yet, there are considerable differences between languages in how demonstratives carve up space and the object characteristics they can refer to, challenging the idea that the mapping between spatial demonstratives and the vision and action systems is universal.

Overviewing findings from multiple experiments, I show direct parallels between spatial demonstrative usage in English and (non-linguistic) memory for object location, indicating close connections between the language of space and non-linguistic spatial representation. Spatial demonstrative choice in English and immediate memory for object location are affected by a range of parameters – distance, ownership, visibility and familiarity - that are lexicalized in the demonstrative systems of some other languages.

The results support a common set of constraints on language used to talk about space and on (non-linguistic) spatial representation itself. While demonstrative systems are not diagnostic of the parameters that affect demonstrative use in a language, demonstrative systems across languages may emerge from basic distinctions in the representation and memory for object location. In turn, these distinctions offer a building block from which non-spatial uses of demonstratives can develop.

Crossing the Symbolic Threshold: Communication, grammar and how we got so smart
Vyv Evans (Bangor University)

In his landmark work, *The Symbolic Species* (1997), biological anthropologist 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.

Entrenchment as onomasiological salience
Dirk Geeraerts (KU Leuven)

The notion of onomasiological salience specifies entrenchment as the relative frequency of competing expressions. This talks argues that such an onomasiological definition of entrenchment is necessary to avoid some of the problems inherent in Langacker's initial definition of entrenchment (1987: 59-60). The talk introduces the main types of onomasiological salience: formal, conceptual, and typological. It offers an overview of the (predominantly lexical) research in these three areas, and explores how an onomasiological perspective contributes to the study of entrenchment at large.

Gestures as Cues to a Target
Leonard Talmy (University at Buffalo, NY, USA)

This talk examines one particular class of co-speech gestures: "targeting gestures". In the circumstance addressed here, a speaker wants to refer to something -- her "target" -- located near or far in the physical environment, and to get the hearer's attention on it jointly with her own at a certain point in her discourse. At that discourse point, she inserts a demonstrative such as *this, that, here, there* that refers to her target, and produces a targeting gesture. Such a gesture is defined by two criteria. 1) It is associated specifically with the demonstrative. 2) It must help the hearer single the target out from the rest of the environment. That is, it must provide a gestural cue to the target.

The main proposal here is that, on viewing a speaker's targeting gesture, a hearer cognitively generates an imaginal chain of fictive constructs that connect the gesture spatially with the target. Such an imaginal chain has the properties of being unbroken and directional (forming progressively from the gesture to the target). The fictive constructs that, in sequence, comprise the chain consist either of schematic (virtually geometric) structures, or of operations that move such structures -- or of both combined. Such fictive constructs include projections, sweeps, traces, trails, gap crossing, filler spread, and radial expansion.

Targeting gestures can in turn be divided into ten categories based on how the fictive chain from the gesture most helps a hearer determine the target. The fictive chain from the gesture can intersect with the target, enclose it, parallel it, co-progress with it, sweep through it, follow a non-straight path to it, present it, neighbor it, contact it, or affect it.

The prototype of targeting gestures is pointing, -- e.g., a speaker aiming her extended forefinger at her target while saying *That's my horse*. But the full range of such gestures is actually prodigious. This talk will present some of this range and place it within an annalytic framework.

This analysis of targeting gestures will need to be assessed through experimental and videographic techniques. What is already apparent, though, is that it is largely consonant with certain evidence from the linguistic analysis of fictive motion and from the psychological analysis of visual perception.

Analogy, Metaphor and Relational Concepts
Dedre Gentner (Northwestern University)

I seek to bring together two lines of research from adjoining fields: metaphorical mappings and relational categories. Cognitive linguistics has demonstrated the pervasiveness of large-scale metaphoric mappings in language and cognition, and a persuasive case has been made that many of our abstract ideas arise from metaphors originating in embodied domains. My first guiding question is How do these metaphoric systems arise, and how are they processed? The second question arises from a gap in work within cognitive psychology. Despite vast amounts of research on concepts and categories, hardly any attention has gone to relational categories—categories like *barrier*, for which membership cannot be expressed in terms of common intrinsic properties.

I will make the case for the Career of Metaphor theory, according to which

- Metaphors and similes are typically understood via a process of structure-mapping from a base concept—which is often concrete and embodied—to a target concept.
- Metaphoric bases undergo gradual abstraction over use, resulting in conventionalized metaphoric meanings
- Because structure-mapping favors relational mappings, the conventionalized meanings are often relational abstractions.

I present evidence for this account from psychological experiments, as well as from historical studies. This account underscores the intimate connection between metaphoric extension processes and the evolution of abstract concepts in language. Further, this account sheds light on the nature of relational categories and suggests a connection between relationality and abstractness.

Regular Programme

Metaphors in Magazine Advertising in Ghana: A Cognitive Linguistic Study

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The paper examines selected advertisements by some financial institutions in Ghanaian magazines within the framework of the Conceptual Metaphor Theory (CMT), put forward by Lakoff and Johnson (1980). The purpose is to identify the underlying conceptual metaphors and how pictorial and verbal means of expressions are used to create these metaphors. Metaphors are often said to be grounded in culture and can hence serve as a good resource for the investigation of cultural beliefs expressed in language (Lakoff and Johnson, 1980 & 1999; Lakoff, 1987 & 1993; Kövecses, 2002 & 2005 and Özçalişkan, 2003). Thus, the paper also addresses how the conceptual metaphors identified inform us about aspects of the cultural beliefs and values of Ghanaians in general. The conceptual metaphors IDEAS ARE FOOD and A PURPOSEFUL LIFE IS A JOURNEY were found to be underlying most of the magazine advertisements by the financial institutions in Ghana. The approach and findings also substantiate the claim that metaphors can occur verbally or multimodally (Forceville 2006). The dominant cultural values reflected in the advertisements are generosity and kindness.

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The Benefit of a Cognitive Linguistic Approach to Learning Noun Countability

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This study investigated to what extent the learners of English as a foreign language (EFL) benefit from a cognitive linguistic (CL) approach to learning noun countability, so that they become able to use the English articles more appropriately. Twenty-four Japanese learners of EFL participated in the study. The Japanese learners were chosen because they often find difficulty in making countable-uncountable distinction in English, due to the fact that their first language, Japanese, does not require noun countability (e.g., Butler, 2002).

The study consisted of three stages: pretest, learning, and posttest. At the pretest stage, the Oxford Quick Placement Test and an original article test were administered. At the learning stage, the participants studied the English article system, using material based on CL insights into noun countability. The participants had five learning sessions (one session [60 mins] per week). After the learning stage, they took two posttests (one week and three weeks later).

The material for learning the English-article system was adapted from Kishimoto (2003) and developed according to CL insights into noun countability: *discreteness* and *boundedness* (Talmy, 2000). Talmy explains how the English-article system may shape a speaker's ways of perceiving objects. According to Talmy, because the English-article system requires a person to constantly decide whether the referent of a noun is countable or uncountable, English-L1 speakers become sensitive to the discreteness and boundedness of objects. For example, if the referent of a noun has an unclear, fuzzy outline, it is cognized as an uncountable, non-discrete substance, while the referent of a noun with a clear outline against its background is most likely cognized as a countable, discrete object. This concept of discreteness and boundedness, therefore, is considered to be useful in explaining the concepts underlying noun countability. In particular, it explains lucidly why mass nouns come to be countable in some cases (i.e., the individuation of abstract or material nouns).

MANOVA results showed a significant main effect of test [Wilks' Lambda = .22, F(2,22) = 38.22, p < .0001, η_p^2 = .77]; the learners improved their overall knowledge of noun countability (M=56.2, SD=20.1 for the pretest; M=68.0, SD=19.8 for the one-week delayed posttest; M=71.0, SD=19.0 for the three-week delayed posttest; Max=100). The learners, however, had difficulty in understanding the usage of English articles for individuated mass nouns. In fact, individuated abstract or material nouns were the only items whose accuracy in English-article usage remained relatively low before and after the learning stage (43.5 for the pretest; 44.8 and 52.1 for the posttests). The learners' comments on their erroneous use of English articles for these items illuminated that they could not grasp the contexts that individuated the target objects or failed to revise their predetermined, stereotypical concepts of abstract or material nouns.

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Investigating Focus Constructions in an EFL context

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The study follows a cognitive and constructionist approach to research syntactic means for information highlighting in an EFL context, as this is the model used by Lambrecht (1994), the most elaborate and psychologically plausible account to date of information structure and linguistic form. Cognitive approaches are usage-based approaches that view language as part of human cognition which is used as a means for making meaning in a social context (Ellis & Cadierno, 2009; Tomasello, 2003). The study aims at finding out the type of knowledge Saudi learners have about the conventionalized ways of information highlighting in English. It also aims to find out the role of L1 Arabic in the acquisition of focus constructions related to object (patient) focus. These constructions are *it*-clefts, *Wh*-clefts, reversed *Wh*-clefts and preposing constructions.

The field of SLA research has witness an increased interest in the distinction between implicit and explicit knowledge in relation to the identification of linguistic knowledge (Ellis 2005; Hulstijn 2005). The type of knowledge L2 learners have about the conventionalized ways of information highlighting in English has received little attention in the literature. A total of 99 participants participated in this study. Participants were grouped according to their proficiency level in English; intermediate proficiency learners, advanced proficiency learners and native speakers of English. An off-line task was implemented to find out to what extent native speakers of English and L2 learners (L1 Arabic) show similar preferences for the use of English object focus constructions in certain communicative contexts. Participants were also asked to perform an on-line task (self-paced reading task) to find out whether native speakers and L2 learners show similar sensitivity to the appropriate use of focus constructions in different contexts. Comparing their performance in the tasks presented evidence as to when learners, over the course of their interlanguage development, come closer to native-like knowledge of English focus constructions and diverge from L1 norms.

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Mental simulations, semantic complexity,
and the distinction between events and states

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Since at least the well-known work of Vendler (1957) the classification of linguistically expressed situations concerning their internal temporal structure is part of the day-to-day business of event semantics. Furthermore, within this classification linguists have established two main categories: telic events and atelic states.

But does this distinction have a psychological equivalent? If so, what are the differences between the mental representation of an event and the mental representation of a state? And are these differences reflected in the processing of eventive versus stative sentences?

So far, only few studies have examined these questions. The experiment in Gennari & Poeppel (2003), for example, reveals longer reading times for event sentences than for state sentences, suggesting that the processing of events is more complex than that of states. But while Gennari & Poeppel explain this complexity with the more substantial decompositional structure of eventive verbs, an alternative account applies this notion to differences in mental simulations: the mental simulation evoked by an event has a more complex structure than the simulation evoked by a state.

A crucial factor for this higher level of complexity within a simulation is motion, which is a defining component of (at least concrete) events. According to Grounded Cognition theories, the processing of a linguistic expression that describes motion entails an activation of the motoric modality. Most importantly, Glenberg & Kaschak (2002) have established the action-sentence compatibility effect (ACE) to describe an influence of linguistically expressed motion on the movement which has to be performed to give a task response.

In my presentation I will illustrate in detail how the theory of differences in the complexity of mental simulations can contribute to the classification of situations in events and states. Furthermore, I will present three empirical studies that provide evidence for this account of simulation complexity:

The first experiment, a phrase-by-phrase self-paced reading study with moving-window design, reveals longer reading times of event sentences than of state sentences and thus replicates the results of Gennari & Poeppel (2003). In experiment 2 and 3 the action-sentence compatibility paradigm is used. Within the results there is subtle evidence for an ACE during the processing of event sentences that describe a movement, while this is not the case with state sentences.

To avoid confounding factors, in all experiments German eventive-stative-ambiguous verbs like *bedecken* (cover) and *schmücken* (decorate) are used.

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Conditionals in Written Discourse:
A Functional Analysis of Arabic Conditional Sentences

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According to Haiman (1978), the subordinate clause (henceforth protasis) of a conditional sentence should be characterised as *Topic* (the element that presents the aboutness of a particular sentence). He supported his thesis by conducting cross-linguistic analysis which explores several languages. The main reason behind his claim is that the propositional content held by the protasis is seen as given information. Giveness is considered as a typical feature for topics (Gundel, 1985). Haiman's view has been greatly influential and debated in the field of functional linguistics (Schiffrin, 1992; Dancygier, 2006; Akatsuka, 2009).

In this paper, I demonstrate practical analyse of Arabic conditional sentences to challenge Haiman and other linguists. I maintain that conditionality in Arabic should be approached from a functional perspective. Following Schiffrin, I set up two criteria in order to provide proper understanding of how the conditional functionally works in Arabic: (i) the preceding context, and (ii) the clause order. Besides, I draw attention to how the content of conditional sentences interacts with the pragmatic dichotomy (e.g. giveness vs. newness). This leads to uncover the cognitive status of the information delivered by the speaker. The 'cognitive status' means here the ways in which the information is realised in the mind of the addressee. Concerning the data, actual examples have been collected from different Modern Written Arabic genres: fiction and non-fiction. The number of conditional examples collected was 628 tokens, which were manually examined one by one.

The analysis reveals that conditional sentences allow three structural orders: *preposed*-protasis, *postposed*-protasis and *medial*-protasis. Preposed-protasis examples (represent 73%) constantly denote the function "Topic", and their propositions develop different cognitive statuses: explicit shared, implicit shared and Semi-shared information. Postposed-protasis examples (represent 24%) most often indicate a topical proposition. However, unlike Haiman and Akatsuka, my analysis of such examples reveals they can also provide a focal proposition. Medial-protasis examples are statistically the least occurring structures in the data with 3%. Their functional role is to provide parenthetical comment on the proposition expressed in the main clause. These results which have emerged from the empirical analysis reveal some aspects of the contextual roles that Arabic conditionals play in the written discourse.

Key words: conditional, topic, focus, clause order.

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Arabic Concessive Conditionals

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In Arabic, there are four common particles that express the concessive conditional, a construction equivalent to the English construction initiated by "even if"; they are: *wa-in, wa-law ḥattā wa-in* and *ḥattā wa-law* (Badawi *et al*. 2004). In most modern Arabic grammars, as in some of the English literature, concessive conditional clauses tend to be analysed as a sub-type of conditional sentences. However, other studies deal with concessive conditionals under the separate heading "concessive clauses" (König, 1986). Recently, it has become evident that the distinction between concessive conditionals, concessive clauses and conditional sentences has drawn the attention of linguists. This confusion and imprecise position for concessive conditionals has led some linguists, such as König (1985, 1986, 1988) and Dancygier (2006), to investigate the semantic features of this class.

In this paper, I analyse Arabic concessive conditionals in the context of König's intensive cross-linguistic studies in which he draws five semantic features that are likely to be held by concessive conditionals universally. I argue that Arabic concessive conditionals are semantically close to concessive clauses because of the common ground between the two classes that can sometimes result in overlap. That is to say, depending upon the context, the Arabic concessive conditional particles that I examine can possibly be rendered by "even if" or "even though". The data analysed were collected from different Modern Written Arabic genres. Hence, it is deemed to reflect the actual use of the concessive conditional sentences.

Furthermore, in this paper I address the distinction between (i) the overt concessive conditional, where the concessivity is marked by a particular lexical item, and (ii) the covert concessive conditional, where a pragmatic force drives the concessivity. In addition, this study provides a statistical analysis of some relevant aspects of Arabic concessive conditionals. These include the common particles used to express this class of concessional conditionals, the clause order tendencies, and the interaction between the particles and modality meanings.

Keywords: Concessive, Conditionals, Arabic.

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Metaphor Comprehension in Arabic-Speaking Children: On the Development of Primary and Perceptual Metaphors

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Previous research suggests that comprehending metaphorical utterances is a relatively late-developing skill, emerging around 5 - 6 years of age. However, few studies have sufficiently distinguished different types of metaphors when looking into the emergence of metaphorical understanding in children (Olofson et al., 2014, Stites and Ozçalişkan, 2012). This study explores metaphorical understanding in typically developing Arabic-speaking children, an area of research very much still in its infancy. It predicts that metaphor comprehension varies by metaphor type and metaphor conventionality. We ask if primary metaphors that are claimed to be rooted in embodiment and learned early on as the child starts to experience the world (Grady, 1997) (e.g., I *see* your point) differ from perceptual metaphors that are based on perceived similarities between the target and source domains (e.g., Juliet is *the sun*). The study also examines the role of metaphor conventionality on metaphor development. This, in return, will show that children may show better understanding of metaphorical expressions and at a younger age than what was reported in earlier studies on metaphor development.

To establish the development of comprehension of different metaphor types, this study tested 87 typically developing children between three and six years of age, and 20 typically developing adults between 18 and 30 on a new metaphor story comprehension task. The task consisted of 20 short stories that contained 20 Arabic metaphors: five conventional primary conceptual metaphors, five novel primary conceptual metaphors, five conventional perceptual metaphors, and five novel perceptual metaphors.

Results show that children's comprehension of metaphors showed differences by metaphor type. Children in all age groups show better understanding of primary metaphors than of perceptual metaphors. For both metaphor types, conventional metaphors generated better performance rates than novel metaphors, but children, as predicted, perform worse on novel perceptual metaphors.

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The role of frequency in the association between verbs and argument structure constructions

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In Goldberg's (1995) Construction Grammar, argument structure constructions encode sentence structure: they associate syntactic forms with event-level meanings. Argument structure constructions are defined as a set of mappings between grammatical and semantic roles, independent of particular verbs.

Ellis et al. (2014) reported that properties of language use affected how often speakers named verbs that could occur in the intransitive construction. The authors found that verbs' lexical frequency and the frequency of verbs' occurrence in the construction were both significantly correlated to how often speakers named verbs. The present study explored the effect of these two frequency measures on verbs produced in response to eight unique argument structure constructions.

Twenty native speakers of British English took part in a verbal fluency task in which they named verbs in response to argument structure constructions. The noun phrases of constructions were encoded as pronouns, and a blank space stood in place of the verb, such as *you _____ at us*. Two measures of frequency for the verbs produced in response to each argument structure construction were derived: the lexical frequency of each verb in British English (Leech et al. 2001), and the frequency of each verb in the construction (British National Corpus (Davies, 2004-)).

The rate of occurrence for verbs produced in response to each construction was significantly correlated with verbs' lexical frequency and verbs' frequency in each construction. For six of the eight constructions under investigation, the relationship was stronger for construction frequency, and in four cases the correlation with construction frequency was significantly greater than the correlation with lexical frequency.

These results demonstrate an effect of language experience on language use. Findings are consistent with exemplar-based language representation (e.g. Bybee, 2010) where verbs and argument structure constructions are associated, and the strength of these associations vary based on frequency.

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The boundaries of metaphor: shape, colour and other attributes

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This talk provides a data-driven perspective on the complex nature of different types of metaphor, with a particular focus on links to and from physical attributes such as shape, colour and texture. The discussion arises from the identification of metaphorical links between semantic categories within the Mapping Metaphor project, which has mapped all such links in the English language over time. The Metaphor Map of English, a major output from this project, is available online at: http://mappingmetaphor.arts.gla.ac.uk/. The data analysed for this project originate from a number of major lexicographical resources – the Historical Thesaurus of English, itself constructed from data from the *Oxford English Dictionary* and *A Thesaurus of Old English* – and so provide a relatively complete picture of the recorded history of the English language.

During the data analysis for the Metaphor Map of English, the limits of what can be considered as metaphor were determined for every potential link between pairs of semantic categories. In many cases, the identification of these links as metaphorical or not was quite straightforward. For example, *whitewashing* has a literal sense of making fabric or buildings lighter and this has been extended to the abstract sense of concealment of the truth in order to give an outward appearance of honesty (in line with the positive connotations and metaphorical qualities of *white*). However, other connections were less easy to categorise, particularly where the relationship was between physical entities. These instances pose questions in relation to the boundaries between literality, metonymy and metaphor. This also allows us to reflect on whether different physical characteristics which are transferred, such as the shape and colour of a *rose*, can be treated similarly in relation to where the boundaries of metaphor lie. It is these more complex relationships that form the focus of this paper.

Drawing images and constructing texts

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At the light of the concept of Cognitive Projections, discussed by Fauconnier (1995; 1997; 2001), Fauconnier and Turner (1994; 2002), Turner (2014), Bergen (2012) and Hofstadter and Sander (2013), this paper aims to show the relevance of analogue processes projection, such as metaphor, metonymy and parables in the construction of written text, and in particular of an argumentative text. Based on studies of Arruda (2007), the use of these processes consciously functions as important tools in the construction of the argument of the text, since they create images with greater visibility and refer to situations with which the interlocutors are familiar. As a secondary school teacher in Brazil, working on "reading" and "writing" with these students, I believe that they need these domains not only to enter higher education, considering that most selective processes in Brazil requests production of argumentative text, but mainly because they need the reasoning for everyday communication. This work was performed though a series of activities based on the theory of "didactic sequence", proposed by Swiss authors Dolz, Noverraz and Schneuwly (2004) and aimed at contributing to the teaching of writing proposing to professional education as enabling this feature, by means of a learning methodology that drives this type of production. What I bring here, considering the theory I buy and the work I have been developing as a Composition teacher in Brazil in a secondary school, is the result of this process demonstrated though the analyses of a student production.

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Prototypical tastes in English

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The sense of Taste has been investigated from several scientific and philosophical perspectives: physiology and neurology (Beauchamp and Bartoshuk 1997; Holley 2006), neurogastronomy (Shepherd 2013), human evolution (Cavalieri 2014); linguistics (Backhouse 1994; Kuipers 1984; Lehrer 1975, 1983, 2007). Yet, to the best of my knowledge, cognitive linguistics has given only scant attention to the Taste descriptor categories.

In her seminal work on categorization, Eleanor Rosch (1973, 1975, 1978) showed the asymmetric structure of conceptual categories. That is, some members have a special status within the category itself, as a result of prototype effect. This view challenges the previous definition, according to which all members of a category would share the same status. According to Lakoff (1987), one of the experimental paradigms to elicit prototypes is the production of examples, holding that "when asked to list or draw examples of category members, subjects were more likely to list or draw more representative examples" (1987:41).

In the present research, I asked a pool of both American and British English native speakers to list as many words as possible that describe tastes. I gave each informant three minutes to complete the task. At the end of each minute, they were asked to move on to a different column on the same sheet to better distinguish the category elaboration process. Furthermore, I compared the results from this test to earlier results, which I obtained from a free-sorting task (Bagli, *forthcoming*).

The objective of the paper is to explore the conceptual structure of the sensory domain of Taste, and to validate the results of the previous outcome, by eliciting prototypical tastes through an experimental procedure. This research represents a first step towards a better understanding of the role of Taste in the English language, through the cognitive linguistics paradigm.

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A Hyperbole-Based Account of the Intensificatory Usage of "Literally"

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The use of "literally" as an intensifier of metaphorical statements, as in "When John discovered the theft, he literally exploded," has often been derided as misuse. However, some researchers (e.g., Israel 2002, Nerlich & Chamizo Domínguez 2003) have argued that the usage is based on general semantic/pragmatic principles. For instance, arguably the "literally" prompts the understander of our example to re-relate John's reaction to literal exploding, rather than just using a relatively weak, entrenched metaphorical meaning for "explode."

This approach is appealing, but we can improve on it by systematically linking the usage of "literally" to another phenomenon and theory. Barnden (2015) has argued that in sentences like "John's reaction wasn't merely LIKE an explosion, it WAS an explosion", the second clause is not to interpreted in an ordinary metaphorical way, but rather in a "likeness-hyperbolic" way: "was an explosion" is to be interpreted simply as a *hyperbolic* way of saying "was *exceptionally like* an explosion". (But there are important divergences here from the well-known elliptical-simile view of metaphor.)

The present paper generalizes that likeness-hyperbolic account to cover forms of metaphor other than A-is-B, as in "When John discovered the theft, he literally exploded." The "literally" is explicitly included here to signal that the "exploded" should be considered in its literal sense, prompting the treatment of that sense simply as, again, a hyperbole for some action that was exceptionally like exploding (while still being within the normal orbit of human reaction).

We thereby unify the issue of the "literally" usage in question with the issue of simile/metaphor juxtapositions above under the heading of a more general, principled theory, rather than having two special theories. The presentation will also extend the account to the use of "literally" as an intensifier in non-metaphor cases.

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Time for change: Political flip-flops in gesture
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The use of space to think about time has been studied in gesture research and cognitive linguistics for many years (Casasanto & Boroditsky, 2008; Cienki & Müller, 2008). Recent work has shown that mental timelines are apparent in speakers' gestures when talking about the past or future (Núñez & Cooperrider, 2013). But how do people communicate a change from the past to the present, or a potential future? One example is a politician could *flip flop* on an issue; he could be *for* granting asylum to refugees *before* being against it. We analyzed American political debates to investigate how change is communicated, and discuss two common co-speech gestures.

First, we analyzed politicians' gestures for temporal order statements. We found several examples of a rightward gesture stroke. This consistent directionality of the gesture stroke implicates the use of a mental timeline, where the left is the past and the right is the future.

Next, a second gesture emerged for the phrase, *a 180-degree reversal*. One speaker pointed his fingers in opposing directions in the center of his body and made a circular motion. Then, his index fingers traced a path in opposite directions. We argue that the purpose of this gesture was to show confusion on the part of the political opponent with respect to where his thinking would lead.

We suggest that these examples of co-speech gestures during temporal order statements are evidence for embodied experience. In the case of *before* utterances, politicians tend to use gestures that suggest a mental timeline is accessed. For 180-degree reversals, a type of co-speech gesture was used that shows a confused path is communicated to the audience. In both of these cases the political figure is making use of space to talk about time; a fundamental tenet of conceptual metaphor.

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Y luego se pintan patrás - Embodied metaphor and the grammaticalisation of patrás in Nuevomexicano Spanish

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The expanded use of *patrás* [back] (or para atrás) is one of the most salient features of US Spanish and is commonly attributed to English influence. Lipski (1985) claims that it constitutes a syntactic calque, Otheguy (1993) maintains it shows cultural but not linguistic influence and Villa (2005) ascribes *patrás* to a process of grammaticalisation completely internal to Spanish. One shortcoming of previous studies is that they did not define precisely what uses of *patrás* are innovative in their semantics. Using corpus data, I propose a grammaticalisation path of *patrás* from its historical uses to its contemporary use in New Mexican Spanish. The New Mexican corpora present uses of *patrás* that cannot be accounted for by the syntactic calque analysis. I argue that *patrás* has undergone semantic extension, which was accelerated because of Spanish-English contact but which was not limited by English constructions in the way that Lipski's analysis suggests. Instead, the semantic change can be understood in terms of the embodied metaphor 'Return Is Backwards Motion' which has historically determined the grammaticalization of the prefix *re-* in Romance and adverbs deriving from the noun *back* in Germanic languages.

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Verb semantics and the category of 'associated motion'
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The talk focuses on 'associated motion' (henceforth AM) and, drawing on its semantic and distributional resemblance to path-encoding satellites such as deictic directionals, shows the importance of verb semantics in defining the category.

The term AM has been increasingly popular in recent work. It generally refers to a range of affixes and particles ─ found in Australian, Amazonian and African languages (Koch, 1984; Wilkins, 2006; Voisin, 2013; Guillaume, under review) ─ whose function is to frame a verb's event in relation to a motion event. The most complex paradigms described in the literature contrast forms which indicate whether the associated motion pertains to the main verb's subject or another grammatical argument, whether it is prior, concomitant or subsequent to the main event, its orientation and/or deictic direction in space, and sometimes its aspectual contour. These affixes are generally productive and their semantics fixed: each can associate a particular motion event to all types of verbs, including those already encoding translational motion (Wilkins, 2006; Guillaume, 2009; Vuillermet, 2013).

However AM is not a homogenous category. The most basic systems described in the literature include fewer affixes, which contrast only with respect to the deictic direction they encode (e.g. Atlantic languages, Voisin, 2013). Some systems have forms whose temporal relations are not fixed, and must be interpreted as concomitant with certain verbs, often translational motion verbs. In such contexts, AM affixes look very similar to deictic directionals, whose main function is to specify the deictic path of motion events. A clear distinction between the two categories is made even more difficult by the fact that, in some contexts, deictic directionals too may presuppose associated motion events (Belkadi, 2015; under review).

In the presentation I show that a clearer distinction can be made between AM and deictic directionals when looking at the verbs they modify and the type of interpretations they derive. Deictic directionals are more likely to mark AM with verbs that do not encode translational motion events, vision or perception events and change of states. AM markers, on the other hand, are less likely to derive concomitant motion with these verbs. The hypothesis developed is based on examples of associated motion from Australian, Amazonian and Atlantic languages provided in the literature (cited above), a corpus of deictic directionals with associated motion interpretations from more than twenty languages from the four main African phyla, and discussions on deictic directionality in the typological literature.

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Conceptual Mapping and the Experiential Character of Embodied Metaphor

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The inception of Embodied Metaphor Approach (Lakoff & Johnson, 1980) laid down the foundations of a theory which accounts for metaphor not merely as a linguistic phenomenon but as a conceptual tool that manifests itself cognitively through mapping directly and indirectly meaningful phenomena—source and target domains, respectively. Being directly and indirectly meaningful are intrinsically related to whether a given phenomenon is bodily-experienced or abstract. Because source domains are bodily experienced (therefore, they are directly meaningful), their experiential character has been attributed a dominating role in conceptual metaphor. In the present research, we shall assess whether being directly and indirectly meaningful are reliable criteria to differentiate source and target domains. Later, we shall explore metaphor cases[1] where the target domains take on a more active role in constructing conceptual mappings. In particular, we shall focus our attention on two metaphor cases: first, we shall analyze the conceptual metaphor which draws on two bodily-experienced phenomena and assess whether the above mentioned criteria fit this metaphor case. Second, we shall explore the conceptual metaphor which is grounded in the co-occurrence of source and target domains such as Quantity Is Verticality to show how target domains carry out a more dynamic role in certain metaphor cases. Findings are finally brought to bear on the theoretical claims of the embodied metaphor theory in light of the above mentioned criteria.

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[1] Data for this study is collected from METALUDE.

Exploring the content of source and target domains in visual vs verbal metaphors through semantic features norms

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Recent studies suggest that multiple systems (such as the linguistic system and the conceptual/simulation system) represent knowledge (e.g. Barsalou et-al 2008, Evans 2009); that language statistics (e.g. words' distributions and covariance across texts) and perceptual simulations, both play a role in conceptual processing (e.g. Louwerse 2011); that these two streams of do not fully overlap in the meaning they convey (e.g. Evans 2009).

In this perspective, linguistic stimuli and visual (or, in general, perceptual) stimuli afford different routes to meaning construction, and they might highlight different aspects of the (rich and complex) semantic representations in our memory. This claim is empirically supported in many functional neuroimaging studies, showing different patterns of neural activation involved during word vs picture processing (see Binder et-al. 2009).

In this study verbal metaphors (identified through the MIPVU procedure, Steen et-al 2010) and visual metaphors (identified through the VISMIP procedure, Šorm, Steen accepted) are contrasted, in relation to the amount and type of knowledge that the metaphorical domains share. Such shared knowledge (which accounts for the similarity established by the metaphorical comparison) is operationalized in terms of elicited semantic features norms (an established methodology in cognitive psychology, see for example McRae et-al. 2005). Semantic features norms provide insights into core conceptual content, and play a role in deep conceptual processing, as opposed to 'shallow' linguistic processing.

The analysis shows that the modality of expression of the metaphor predicts the presence of shared semantic features between domains: visual metaphors' domains are more likely to share knowledge that is captured by the semantic features, compared to verbal metaphors. The theoretical implications of these results are discussed within a theoretical framework in which different dimensions of meaning play a role, as well as different types of cognitive operations.

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Gesture in the Resolution of Syntactic Ambiguity: Negation and Quantification in English

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Gestures are associated with expression of negation, e.g. Open-Hand-Prone gestures (Kendon, 2004), head shakes (e.g. Kendon, 2002; Calbris, 2011), and their interaction/synchronization (Harrison, 2014). The current study examines a context of syntactic ambiguity in English, specifically negation + quantification, and asks to what extent gestural forms/timings help speakers convey intended interpretations.

In a quasi-experimental design, 14 native speakers of English were familiarized with syntactically ambiguous sentences embedded in disambiguating contexts, and subsequently produced the target sentences while being video recorded. Analyses focused on ambiguous sentences incorporating quantifiers and verbal negation (e.g. *All the magnolias won't bloom.* – see Syrett et al. 2014), for which one of two interpretations were each possible.

Analyses of 164 gestures revealed that the majority of gestures were head gestures, notably head shakes. However, subtle differences were also visible. In contexts were quantifiers took scope over negation (i.e. *all > not*), head shakes appeared longer, spanning more lexical items and more often covering both the quantifier and the negator regardless of their syntactic positions. In contexts were negators took scope over quantifiers (i.e. *not > all*), head shakes appeared shorter, punctuating individual items, primarily the negator irrespective of its position relative to the quantifier. A number of nodding head gestures were also produced with somewhat similar patterns. One and two-handed Open-Hand-Prone gestures were also observed with largely comparable gesture-speech alignments in contexts containing quantifiers *many/most,* where the negator preceded the quantifier, although such patterns were not evident for sentences containing quantifier *all,* where the quantifier preceded negation.

Results are discussed with reference to gesture and scope of negation (see Harrison, 2014). Moreover, the contribution of gesture will be evaluated in the context of mixed results regarding the robustness of prosodic patterns in production of ambiguous sentences involving quantification and negation in English (e.g. Syrett et al. 2014).

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A grammar of resistance: Using Cognitive Grammar to account for resistant reading

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In Critical Discourse Analysis, it has long been held that grammatical forms encode an ideological perspective. Use of the passive voice or nominalisation are ways of 'reducing' (Fairclough, 1989: 103) the information available to the reader and thereby mystifying what might be important aspects of the situation or events being described (for example, compare the nominalisation, 'the bombings', to 'the Americans bombed Vietnam'). Whilst this approach has been very productively employed to examine how texts promote particular ideologies, it is also a fact that readers are capable of *resisting* the ideological interpretation of events proffered by the texts they read.

In this paper, I use Cognitive Grammar (CG, c.f. Langacker, 1987, 1991, 2008) to address this issue of reader resistance. CG has increasingly been used in the analysis of literary discourse (e.g. Harrison, forthcoming; Harrison et al, 2014; Stockwell, 2009), and has very productively been applied in CDA (e.g. Hart, 2014). In CG, all grammatical forms 1) evoke conceptual content and 2) construe that content in some way. The conceptual content evoked depends upon the experiential knowledge possessed by the reader. In this model, resistant readings can be accounted for by a clash in the preferred construal of the reader versus the construal placed on the conceptual content by the writer.

I report on a pilot study involving three participants, all of whom were members of the British Labour Party. The participants were asked to listen to and discuss a speech by a prominent Conservative Party politician. I use the CG concepts 'specificity', 'focusing', 'prominence' and 'perspective' (Langacker, 2008: 55-85) to analyse the ways in which participants re-construe the conceptual contents of the speech, thereby creating resistant readings.

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Prominence and perspective with classifier predicates
in Spanish Sign Language (LSE)
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This poster provides some outcomes from a corpus-based research on predicate constructions in Spanish Sign Language (LSE). The corpus consists of more than four hours of recorded signed discourse, of which almost 80% has some type of annotation. The glossing and grammatical annotation is based on the glossing system designed for Auslan corpus (Johnston 2013). By observing how entities are profiled -according to the semantic class of the verb and having into account the selected perspective- interesting configurations when classifier constructions are at the center of attention can be detected.

Classifier predicate constructions in signed languages (Emmorey 2003) have been broadly described as semilexical units that combine a movement or placement (the verb 'stem') with a nominal 'stem', expressed by a manual handshape which constitutes a schematic representation of a person, object, etc. The possibility of a simultaneous use of several articulators and specifically the fact that each hand can stand for a different argument – holding a different semantic role- allows to observe how they can be selected as primary and secondary figures. When hands are used non-symmetrically, there is a clear tendency to associate the dominant-hand with the primary figure (trajector) and the passive-hand with the secondary figure (landmark). The signer's choice of primary figure is related to inherent properties of referents, their semantic role in the event, and discourse status. This functional difference in the role archetypes of incorporated arguments is reflected in our data: the passive hand is preferred for patient, goal and location, while the dominant hand is preferred for agents, themes or instruments.

Moreover, perspective changes usually known as 'role-shift' or, more commonly in sign language cognitive literature, as 'constructed action', add another factor of complexity to these simultaneous classifier constructions (Aarons and Morgan 2003; Liddell 1998; Perniss 2007). We will show in detail that, in many of these cases, there are two or more elements to compete for a trajector status owing to a discourse motivation, and the resulting expression can be accounted for as a blending of two or more construals on the same event through the exploitation of simultaneity.

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A multimodal analysis of verbal and gesture expression by simultaneous bilinguals.

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This poster presentation reports on work in progress, an analysis of the expression of static locative relationships in English and French focusing on simultaneous bilingual speakers. The data is drawn from video-taped picture descriptions where subjects were asked to talk about the location of certain entities on these pictures. Simultaneous bilinguals, who are considered to be raised with two different languages in childhood (Baker 2011), can be expected to have a shift of gestural behaviour when switching languages. Given the typological differences between Romance and Germanic languages (cf. Talmy 2000, Lemmens & Perrez 2010, 2012, forthc.), this is particularly expected to occur with respect to the expression of the manner of location as well as to how and where this information is expressed. We will consider differences at different levels, showing how lexical and syntactic choices interact with the use of co-verbal gestures. Gestures differ across languages, particularly between Satellite-framed languages (English) and Verb-framed languages (French) (see, e.g., McNeil 2000, Kita & Ozyürek 2003, Brown & Chen 2013). Cross-linguistic variation in gesturing between monolinguals and bilinguals (Brown & Gullberg, 2008) leads to the hypothesis that simultaneous bilinguals do not always adopt the same gestural behaviour as their monolingual peers when switching languages. Our data, English monolinguals represent iconicity more than French monolinguals do in gesture; while still to be confirmed by further analysis, the bilingual speakers tend to have a higher degree of gestural iconicity when speaking English than when speaking French.

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***"He killed the chicken, but it didn't die"*:**
An empirical study of the lexicalization of state change
in Mandarin monomorphemic verbs
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Languages vary systematically in how semantic information is "packaged" in verbs and verb-related constructions (Levin & Rappaport Hovav, 1995; Pinker, 1989; Talmy, 1985, 2000). Mandarin contrasts typologically with English in its lexicalization of state change (Talmy, 2000). The majority of Mandarin monomorphemic verbs is moot about or only implies a state change, whereas English has many monomorphemic verbs (e.g., *kill, break*) that entail the fulfillment of a state change. For example, it is felicitous to say in Mandarin *he killed the chicken, but it didn't die* as the Mandarin counterpart of the English verb *kill* only implies a state change of death and this implicature can be canceled.

This study investigates the state-change implicature in Mandarin monomorphemic verbs. An experiment was conducted to elicit adult native Mandarin speakers' semantic knowledge about the strength of the state-change implicature in monomophemic Mandarin verbs. 84 native speakers of Mandarin (age range 19-21 years) participated in an online rating task (using a 5-point Likert scale) about the acceptance of 16 sentences that expressed the failure of the attainment of the state-change implicature of a target verb (e.g. *ta sha le ji, ke shi ji mei si* 'he killed the chicken, but it didn't die'). ANOVA analysis reveals a significant difference among different target verbs on the acceptance rate of such sentences (F=21.37, p <.000), and post hoc comparisons show a continuum of state-change implicatures in the target verbs (e.g. verbs such as *guan* 'do.closing.action', *zhai* 'do.picking.action' and *sha* 'do.killing.action' were less likely to be accepted with a failed realization of the state-change implicature in comparison to verbs such as *bai* 'break.by.bending', *qie* 'cut', *zhu* 'cook').

This study is the first to empirically show the nuanced state-change implicatures and the existence of such a continuum among Mandarin monomorphemic verbs. The finding corroborates Talmy's (2000) proposal that English implied-fulfillment verbs follow a cline in the strength of the state-change implicature. This study further suggests a typological implicational hierarchy in the event representation of state change crosslinguistically.

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Windowing and Gapping in Chinese BA-construction
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Regarding meaning of expressions, Goldberg (1995, 2006) contends for the independent status of constructions from verb and proposes a constructionist model, representing the semantic integration between construction and verb for the expression meanings. She convincingly argues for the advantage of the constructionist model over lexicalist models (Levin 1993, Pinker 1989) in dealing with mismatch sentences. However, some of my ba-sentence data extracted from the two authentic Chinese corpora CNC and CCL indicate that no direct semantic association is possible between verb and the construction in which the verb occurs. For example:

> *Chuang hui ba shen-zi shui   ruan*
> Bed   will BA body   sleep soft
> 'Sleeping on this bed (for too long) will make (you) feel lacking of strength.'

The verb sleep has no direct semantic relation with body soft of the construction. Nor the bed can be understood as making the body uneasy. This example may reveal that many theoretical models (including constructionist models, lexicalist models and causation model) are inadequate.

I contend that the verb-construction unmatched Chinese ba-construction can be investigated with a fully consideration of its background knowledge represented in an event frame (Talmy 2000) of sentence, which has not been done by any other Chinese linguists. It is some of the unexpressed yet accessible background knowledge that semantically mediates and associated the verb and its construction. Talmy (2000) proposes a rich event frame, including several sub-events. In his event frame, some sub-events are windowed and overtly expressed, while others gapped. In the unmatched cases, I will argue, the windowed verb conception can only be integrated with windowed construction conception through mediating background knowledge represented as the gapped sub-event(s), but not through direct verb-construction fusion proposed by Goldberg. I also contend that without the mediating background knowledge, neither the strong version of componential principle by Chomsky nor the weak version by Goldberg holds water.

Keywords: unmatched verb-construction relations, Chinese ba-constructions, event frame, constructionist approach

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Comprehension of conventional metaphors by second language speakers: Do they show the same degree of emotional engagement as natives do?

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Figurative expressions are used pervasively in everyday communication and preferred over literal ones when people describe how they felt during an event rather than what happened (Fainsilber & Ortony, 1987). Recent neuroimaging research suggests that figurative language plays a special role in conveying emotion (Citron & Goldberg, 2014; Citron, Güsten, Michaelis, & Goldberg, 2016). Specifically, conventional metaphors (e.g., *She looked at him sweetly; He had a rough day*) elicited significantly enhanced activation of the left amygdala than their literal counterparts (e.g., *She looked at him kindly; He had a bad day*). Since the amygdala is associated with processing of emotional or salient stimuli, the authors suggested that metaphorical formulations may be more emotionally engaging than literal ones, despite both stimuli having been rated as highly similar in meaning and equal in emotional valence and arousal.

In the present study, we investigate how proficient second language (L2) speakers process these expressions. Do they show stronger emotional engagement as natives do? Similar sentences such as the ones used in Citron et al. (2016) were presented to 22 proficient speakers of German whose native language is Italian (formal education: M = 6 years; had been living in Germany: M = 3 years). They were asked to silently read for comprehension while their brain activity was being recorded (fMRI). When comparing the two groups, L2 speakers show recruitment of more cognitive resources than native speakers overall. Results also suggest that L2 speakers process metaphorical expressions similarly to literal ones, i.e., they show activation of the language network to the same extent in both conditions. Of particular interest is that L2 speakers show emotional engagement (i.e., amygdala activation) in response to both figurative and literal expressions, unlike native speakers. One interpretation is that the higher the cognitive load associated with comprehension of sentences (metaphorical only for native speakers, both types for L2 speakers), the stronger the emotional engagement, possibly due to the rewarding experience of problem solving.

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Do repetition cues influence reading process in short scientific texts?

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Repetition cues are a specific type of metatext markers. Like all metatext markers they refer to the text itself and the information they provide may be still inferred from the text if they are deleted (Shiffrin, 1988; Fraser, 1999; Hyland, 2005). Metatext markers may also be described as processing instructions for readers (see also Lemarié, Lorch, Eyrolle and Virbel, 2008). Repetition cues, for example "as was mentioned", "the described", explicitly inform readers that something already given in the text is to reappear, thus allowing them to reactivate information remembered from the text. However, repetition cues may also serve as importance cues foregrounding the following words or phrases.

To test how repetition cues influence text processing a series of experiments on short scientific texts in Polish was conducted. In Experiment 1 participants read the texts and decided, whether gaps preceding repetitions should be filled with a metatext marker. The texts were then used in three self-paced reading experiments. In Experiment 2 all the experimental texts included a repetition, either "bare" or preceded by a repetition cue. In Experiment 3 incoherent conditions were added in which a new word appeared instead of repetition (again, "bare" or cued). In Experiment 4 a synonym was used instead of a lexical repetition.

The results of the studies indicate that readers perceive repetition cues as appropriate even in short texts, but the text length may influence the way the markers are processed. In reading experiments the influence of correctly and incorrectly used markers seem to interact with reader's reading rate and text's length. This result is in line with the idea by Lemarié and colleagues (2008) that there is and interaction between metatext marker's scope and accessibility of the information it may provide.

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Redundancy and Analogy: a *Cognitive Discourse Analysis* look at *as* in spoken data

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As is a polysemous word in English whose grammatical category is largely determined by its function (in line with Croft 1991). In this paper, I examine data from live television broadcast (breaking news format) in order to try and determine a core semantic value - or instruction (Col et al. 2012). Within the framework of Cognitive Discourse Analysis (Tenbrink 2015), cognitive bases and discursive motivations are the target of semantic annotation. The analysis is based on the fine-grained characterization of a highly constrained speech (situation): CNN's live broadcast on 9/11. I will first demonstrate why it is possible to transpose CODA to naturally occurring speech. I will then suggest new analytical approaches to the use of *as* in the corpus.

Although CODA is meant to study data collected in controlled situations, I argue that the highly specific constraints framing the corpus offer natural control parameters. Indeed, live commentary on a never-seen-before and ongoing event is based on a unique and constant attentional focus. All the speakers share the same discursive and interactional goal: describing and understanding what is going on. As in event descriptions tasks, informational and temporal pressures add to the constraints speakers deal with. Sociodiscursive profiles were also established to account for interspeaker differences, using interactional analysis.

An intersubjective functional typology of *as* is built using semantic annotation (with Analec software - designed by B. Victorri/LaTTiCe) in terms of semantic repertories. It shows that instances in the corpus do not match the typical uses described in the literature (clause order, semantic relation to main verb, type of subjects). This functional cognitive framework led me to criticize previous accounts in terms of identification, since it is a costly and complex cognitive mechanism that cannot account for the ease of treatment and variety of uses associated with *as.* In trying to account for the discrepancy, I test another semantic hypothesis aiming at increased cognitive and psychological plausibility: *as* expresses vague co-incidence. Its semantic instruction, as I will try to show, is based on informational redundancy. *As* acts as an indicator that "nearby" information is redundant, readily available and, more times than not, activated. In detailing this mechanism, I will argue that it represents an instance of analogy (Fauconnier/Turner 2002; Hofstadter/Sanders 2013). The breaking news format of the corpus favors the emergence of analogical constructions, whether they should be linguistic or multimodal (after Steen/Turner 2013). *As* constructions in the corpus align with a broader analogical phenomena, comforting a cognitive approach.

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"Et voilà!": a cognitive perspective

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Voilà is a unique word in the French language, challenging many a categorization (syntactic, semantic and functional). Our paper presents collaborative research that aims at understanding why this word has been spreading so widely in spoken French (Pourquery 2014). After reviewing the literature, we propose to tackle the word and its many uses from a cognitive point of view.

Such an approach is warranted by the deictic origins of the word (literally see-here), by its presentative uses and the way it contributes to discourse cohesion and intersubjective adjustment in discourse. In other words, *voilà* has to do with pointing to the world or pointing to a place in discourse or interaction (Bergen & Plauché 2001). Such a framing function makes the word highly context-sensitive.

Corpus data from varied sources (written, spoken, historical and contemporary) exhibits such a wide array of functions. It also shows that correlation exists between sentence position, syntactic complementation and function. This study yields a typology of uses (Col/Danino/Rault 2015) and provides us with semantic hypotheses to be tested.

Building from this research, psycholinguistics experiments were conducted in order to further examine its key role in information structuring and in interactional cooperation (Clark 1996). Our claim is that *voilà* signals the integration of informational elements by grouping them into a perceptible set on the verbal scene (Col/Rault/Danino/Knutsen 2015). More specifically, the results of our experiments suggest that *voila* enables speakers to express his or her agreement with information presented previously. It also facilitates verbal interactions by making grounded information more salient in situations in which dialogue partners experience increased cognitive load.

Further experiments show that *voilà* manipulates points of view: they converge to create a shared set of information, whether from the world or from the interaction. Its role in dialogue management might explain its current expansion.

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Occupation Nouns in Persian: A Cognitive Construction Morphology Account

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The present article is a case study that aims at investigating the morphology of Persian compound and derived occupation nouns from a cognitive-constructional view. Affixation and compounding are two major Persian word-formation processes through which Persian occupation nouns are made. Some of the most frequently used suffixes involved in their formation are "-gær", "-kɑr", "-dɑr", "-bɑn", "-ʧi", "-mænd" (added to nouns) and "-ænde" (added to present verb stems) and the two main compounding processes include adding a noun to present verb stem, such as "mojæsæme-sɑz" (sculpture-make "sculptor") and adding a modifier noun to another occupation name, such "dændɑn-pezeʃk" (tooth-doctor "dentist"). The data are from two online corpora, Takvaj (http://takvaj.ir/) and Bijankhan (http://ece.ut.ac.ir/dbrg/bijankhan/), supplemented with a data-base generated by the authors and analyzed based on Langacker's (1987, 2008) Cognitive Grammar (CG) with a focus on the notion of "construal" and considering its four classes of specificity, focusing, prominence and perspective. The very fundamental notions of categorization and conceptualization are also taken into account. Furthermore, we try to link the Cognitive Grammar approach to that of Construction Morphology (CM) (Booij, 2010, 2015) and argue that construal could be considered a property of morphological constructions. That is, each constructional schema (or subschema) construes the reality of the world in a specific way.

By doing this, we try to provide answers to the following questions: What is the outcome of analyzing Persian derived and compound occupation nouns through the use of the fundamental notions of Cognitive Grammar? How can we integrate the notion of "construal" with the constructional schemas in CM? The study shows that the integration of CG with CM could provide a deeper account of the occupation nouns in Persian and reveal the construal phenomena that seem to play main role in formation of these complex words.

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Additional complexity in complex sentences in child-directed speech

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Young children appear to have difficulty in comprehending and producing temporal, causal and conditional sentences. Between three and five years they misinterpret sentences like "Before the girl jumped the gate, she patted the horse" to mean that the jumping occurred first (e.g., Clark, 1971). They also reverse cause and effect in causal sentences (e.g., Emerson, 1979). Different factors have been suggested to influence children's performance, such as iconicity (e.g., Clark, 1971) or memory limitations (e.g., Blything, Davies, & Cain, 2015). It has also been claimed that main-subordinate clause orders should generally be easier to process and to produce (Diessel, 2005).

From a usage-based perspective, to understand how children learn these complex constructions, we need to know the nature of the language they hear and how this might interact with the acquisition process. However, there is hardly any information on the kinds of complex sentences children are exposed to.

We extracted all complex sentences containing the subordinators *after, before, because* and *if* in about 93 hours of child-directed speech (N = 1438) from two dense (British) English corpora of parent-child interaction (Lieven, Salomo, & Tomasello, 2009), starting at the third birthday and covering six weeks.

We found that, in addition to great variation in relative frequency of occurrence and preferred clause order across the four sentence types, strikingly, more than half of all sentences contained some sort of additional complexity. For instance, some sentences contained more than one subordinator (e.g., *because after*) or were embedded in complement clauses (e.g. "I do think it would be more sensible if…"). We will present an analysis of these sentences, and discuss the challenges they pose for children's acquisition of complex sentences. We will also consider the implications of our findings for an account of the mechanisms involved in learning complex syntax from natural discourse.

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Audience Design and Spatial Description in Tseltal Maya and English

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How do speakers choose to describe an object's locations in small-scale space in light of what they know/assume about their interlocutor? Do they choose to describe them from their own perspective, the perspective of the addressee or from a perspective outside both the addressee and the speaker? Locative and motion descriptions require an anchoring viewpoint (the anchor), which can align with the ground (the reference entity), an outside observer, or an environmental landmark. Preference for how a spatial description is anchored may be mediated by the language of the speaker (Levinson 1996, 2003; Bohnemeyer et al 2012, 2014, 2015). Some language communities prefer to anchor the description with the ground or some environmental entity or gradient; this is true of Tseltal Maya speakers of Mexico. Other linguistic communities, such as English speakers, prefer to anchor their descriptions to an observer's body and need to specify whether that observer is the speaker or the addressee. Speakers may also adapt their descriptions to the needs of the addressee, e.g. in response to a perceived difference in cognitive burden (Schober 1995, 2009). Audience design is adapting to the needs of the addressee. We examined whether language and orientation of the stimulus ('offset') had an effect on the use of addressee-centered, speaker-centered or other-centered descriptions. Pairs (16 English, 18 Tseltal) completed a referential communication task (Clark and Murphy 1982) where they did not share a visual field and the addressee was at a 90-degree offset from the speaker. Speakers described spatial arrays to an addressee so that they could be rebuilt. The array either had the same 90-degree offset vis-à-vis the speaker as the addressee or it had no offset. Multinomial regression shows that Tseltal speakers are less likely to produce either addressee-centered ($p<.001$) or speaker-centered descriptions than English speakers ($p<.05$). This study contributes to our understanding of how language mediates interactions involving spatial descriptions.

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Largest chunks as short text segmentation strategy: a cross-linguistic study

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Based on findings on short text segmentation, our work aims to draw attention to a distributional dimension of speech segmentation. Using the algorithm of Drienkó (2016), we segment CHILDES texts in four languages: English (Anne, Manchester corpus; Theakston et al. 2001), Hungarian (Miki, Réger corpus; Réger 1986, Babarczy 2006), Mandarin (Beijing corpus; Tardif 1993, 1996), and Spanish (Koki, Montes corpus; Montes 1987, 1992). The algorithm looks for subsequent largest chunks that occur at least twice in the text. Then adjacent fragments below an arbitrary length bound *k* are merged. Assigning various values to *k,* we can get a picture of how precision values change. By text we mean a single sequence of characters, without punctuation, or spaces. The length range of texts is 3756-31844 characters. Our results suggest that looking for largest recurring chunks may be a powerful cognitive strategy cross-linguistically as well. In particular, we find that the Boundary Variability precision metric stays below 1 for all conditions, which means that, for a given Redundancy value, a learner could obtain an optimal segmentation – i.e. where all inferred boundaries are correct – by shifting the inferred boundaries less than 1 character, on average, to the right or to the left. In other words, language learning might be based on memorizing tentative chunks that could be "finalised" later, as cognitive development progresses. The k-merge behaviour of our precision metrics is also similar to the previous findings for English data indicating that merging longer segments, and thus inserting fewer boundaries, yields higher Inference Precision. The philosophy behind our segmentation strategy is, broadly speaking, compatible with that of Peters (1983) in that we first identify "large" utterance fragments in unsegmented texts and then apply "fusion" – "merging", in our terminology – to affect precision, reducing Redundancy, in particular. Our data also allow a "less is more" interpretation (Newport, 1990): less detail of utterance structure may facilitate higher precision of boundary inference.

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Principle of pithiness in US prison slang

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'Annoyance and frustration await anyone who searches the professional literature for a definition or even a conception of SLANG that can stand up to scrutiny' (Dumas & Lighter 1978:5). More than three decades later, slang continues to intimidate linguists: it changes rapidly, it is difficult to access and record, so that studies of slang are few and far between. Nonetheless, because it is probably found in all languages, it is unquestionably creative and fundamentally figurative, slang deserves attention, and prison slang, as its least studied variety, even more so.

Prison culture is a complex involving many different aspects, such as hierarchy, norms, regulations, and the jailers-inmates relations. The members of prison subculture share common beliefs, values, attitudes, and norms regulating life behind the bars. A successful form of prison social coexistence calls for the use of a common idiom. Therefore, prison slang is a code that serves as a smokescreen when a situation demands it. It only belongs to the chosen ones.

Drawing on the insights of the Current Discourse Space theory put forward by Langacker (2008), combined with the Conceptual Blending Theory as proposed by Fauconnier and Turner (2002), the paper will investigate a modicum of examples from *Green's Dictionary of Slang* (2010) and online prison glossaries. The paper will also focus on the overall context of prison as a proper understanding of prison slang requires insight into the specific nature of the facility. It will be argued that in order to communicate effectively on different levels (prisoner-prisoner, prisoner-jailer, prison gang-prison gang, etc.), prisoners need to apply what I call "the principle of pithiness", in response to the necessity of expressing oneself and conveying information in as few words as possible. Hence a frequent use of metaphor and metonymy. Only by following this principle can prisoners establish a prison code that serves a successful exchange of information with fellow prison parties (jailers or inmates).

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A great deal of evidence based on a great many instances: A usage-based comparative corpus-study of two English nominal constructions

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In Hjulmand & Schwarz' (2008: 126) reference grammar of English for Danish students, the authors state that, when translating from Danish, "'en hel del' is *a good/great deal* of in front of uncountable nouns, but *a good/great many* in front of countable nouns in the plural". This claim calls for empirical support. With significant distributions of count nouns vs. non-count nouns (100% vs. 0% in the latter construction, 1.5% vs. 98.5% in the former), a study of COCA suggests that the claim holds up at least for American English. However, the claim ultimately remains monolithic, belonging to what Harder (2015, see also Gregory 1967) calls incomplete accounts. In the perspective of the usage-based foundation of contemporary cognitive linguistics, such a claim would leave out information potentially useful to Danish learners of English. Drawing on principles from construction grammar (e.g. Goldberg 1995, Croft 2001) and (variationist) cognitive sociolinguistics (e.g. Pütz et al. 2014), this paper presents a synchronic and diachronic usage-based comparative corpus study of the two constructions. Drawing on data from the COCA and OANC, distinctive collexeme analyses (Gries & Stefanowitsch 2004) show that, not only do they differ in terms of preference for count vs. non-count nouns, the constructions also have different preferences for specific individual nouns and semantic noun classes. Moreover, variety-centered multidimensional scaling analyses and heatmap analyses indicate that these patterns display register- and lect-variation; for instance, the patterns of construction-noun preference are highly sensitive to domain and register. In addition, Shibuya-style (2015) richness analyses reveal differences in the two constructions' productivities. Furthermore, data from COHA show that both constructions, while peaking in the mid 1800s, are used less frequently nowadays, with 'a great many N' currently facing extinction.

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Constructing empathy in Polish discourse on refugees and immigrants

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The paper aims at demonstrating the discursive strategies employed to shape attitudes towards refugees and immigrants in recent Polish media discourse. Over the last 20 years, we can observe an increasing interest in studying the linguistic representations of 'the other' in various countries (e.g. van Dijk 1997; Eastmond 1998; Pickering 2001; Baker et al. 2008; Khosravinik 2009, 2010). In 2015, due to the so-called European migrant crisis, this issue became particularly vital, and we could observe stance-taking in many forms of discourse. My focus is on empathy understood as a specific viewing arrangement, i.e. along the lines set by S. Kuno (1987: 206): "Empathy is the speaker's identification, which may vary in degree, with a person/thing that participates in the event or state that he describes in a sentence." The analysis aims at depicting the grammatical exponents of such empathetic attitude. To that end, Ch. Hart's conception of "grammar of point of view" is employed (Hart 2014). This framework seems to offer the most comprehensive account of grammatical (mostly syntactic) means of expressing various points of view in discourse. However, due to typological differences between English and Polish, in the analysis of Polish material a systematic reflection on inflectional exponents of point of view is also required (e.g. the use of 1st-person singular and plural forms of verbs). The study is based on a corpus compiled out of articles published in 2015 in major Polish weeklies representing various attitudes towards the migrant crisis.

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The conduit metaphor and beyond: communication needlework constructions in Portuguese

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The literature on figurative language has pointed out that one of the most pervasive metaphors for verbal communication is Reddy's (1979) now well-known *Conduit Metaphor*, in which verbal communication is conceptualized as physical object transfer. According to this metaphorical mapping, linguistic forms are conceived as containers which the speaker fills with meanings and send to the addressee (e.g. *He gave me an idea*).

Although the analysis provided by Reddy has focused on English data, Conduit Metaphor has been attested in languages non-related to English, such as Japanese (Nomura, 1993), and also in gestures (Müller, 2004). However, it also seems to be the case that the metalanguage for verbal communication may be language specific. For example, taking the activity of "Building" as source-domain, English speakers may use phrases like 'to build a proposal' whereas Portuguese speakers, in similar contexts, would prefer phrases such as *costurar uma proposta* (literally, 'to sew a proposal').

These Portuguese metaphorical phrases are associated to a specific kind of transitive construction termed here as the "*Communication Needlework Construction"(CNC)*. This construction has the structure [NP1 V NP2], in which NP1 codes the speaker and NP2 codes the utterance. Drawing on Construction Grammar and Blending Theory insights (Goldberg, 1995; Fauconnier & Turner, 2002), this paper's main goal is to describe the CNC, and show that: (i) it can be seen as a metaphorical extension of the literal transitive needlework construction; (ii) it is instantiated by a set of highly frequent needlework verbs (iii) its syntactic pattern is associated with a family of related senses; (iv) it prompts for blending networks, mostly one-scope but also double-scope ones.

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Prototype Effects in Morality Judgments

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The theory of Universal Moral Grammar (UMG) (Mikhail 2007, 2011) aims to provide an account of moral cognition based on a theoretical analogy with constructs of Generative Grammar. Assuming that —like language— morality is a universal, innate, human faculty, Mikhail (2007) holds that a moral grammar is a "domain-specific set of rules, concepts and principles… [which] enables individuals to determine the deontic status of an infinite variety of acts and omissions" under the form *permissible* or *impermissible* (: 144; cf. also Hauser, 2006; Hauser *et al*., 2008).

This study provides original experimental data from different moral-judgment tasks and questions the assumptions of UMG and its scientific method. We tested the categorization and framing of short stories containing fictional intentional killing events (FIKEs) relative to their degree of moral permissiveness, as judged by participants. Results show that judgments on permissiveness construe the values *permissible* and *impermissible* pertaining to *ad hoc* categories (Barsalou 1983) exhibiting prototype effects, rather than objective and universal categories. We therefore argue that the categories PERMISSIBLE and IMPERMISSIBLE behave both as semantic prototypes (Coleman and Kay 1981) and moral prototypes (Johnson 1993). Additionally, permissiveness judgments of the FIKEs do not consistently relate to participants' stated beliefs about killing permissiveness, assessed prior to the judgment tasks. This, too, conflicts with the 'rules, concepts, and principles' proposed by UMG as the components of a moral grammar enabling clear-cut moral deliberation.

We argue for the role of imagination and meaning re-definition as fundamental mechanisms of moral deliberation. Additionally, we claim that the structure of the idealized cognitive models (Lakoff 1987) defining our moral concepts can be examined linguistically. Finally, we argue that a well-articulated account of moral judgments is needed from a non-rationalist, non-objectivist, and, crucially, cognitive linguistic perspective.

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The English can't *stand* the bottle like the Dutch: ERPs show effect of language on object perception

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Previous research shows that linguistic labels affect perception, reflected in modulations of ERP components (P1/N1/P300; Thierry et al. 2009; Boutonnet et al. 2013). Here, we go beyond terminology to examine how perception is influenced by argument features of verbs: Dutch uses posture verbs (staan/liggen 'stand/lie') to describe locations of objects, encoding object position (Lemmens 2002). In contrast, position is not obligatorily encoded in English ('there is a cup on the table'). We ask, whether this difference is reflected in object perception, by recording ERPs in English and Dutch participants during a picture-matching task.

Dutch (N=28) and English (N=26) participants saw sequentially presented pairs of pictures (N=400), each showing an object on a surface (e.g., a suitcase on a table). Each object (N=10) was manipulated across two spatial dimensions, i.e., rotated 90 degrees along the horizontal or the vertical axis. The former manipulation reflects the obligatorily encoded position distinction in Dutch verbs. Participants pressed a button only when they saw a different object in the second picture. We used an oddball design with four conditions: (a) Object Match (frequent condition, 70% of trials), (b) Object Mismatch (response oddball, 10%), (c) Orientation Mismatch (control distracter oddball, 10%), and (d) Position Mismatch (critical distracter oddball, 10%). ERPs were time-locked to the onset of the second picture. Analyses revealed a significant Language by Condition interaction on amplitudes of an early component associated with automatic and prelexical perceptual discrimination processes (the N100, the earliest negative going peak; cf. Boutonnet et al. 2013): Whereas an enhanced N100 was obtained for the response condition in both groups, Position Mismatch oddballs elicited an N100 modulation only in Dutch participants.

In sum, Dutch participants displayed increased selective attention to verbally encoded object features, before this information can be accessed lexically, adding to the evidence that language affects our perception of the world.

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Two grammars in the input – two different strategies to process the input. The usage-based perspective on grammatical development in a bilingual child.

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This study examines the onset of grammatical acquisition in a bilingual toddler (1;10.16-2;5.11) exposed to Polish and English from birth but dominant in the latter. It examines the extent to which input, the central tenet of the usage-based perspective (Tomasello, 2003), can account for the emergence of grammar in the acquisition of Polish and English - two languages which offer typologically different stimuli for the child to work from. The data come from 30 half-an-hour recordings and from a diary.

The last three decades have seen an increasing role of cognitive models of first language acquisition and yet the debate on the nature of grammatical acquisition remains unresolved (Ambridge & Lieven, 2011). This study contributes to the growing body of evidence that grammar emerges in response to input which calls into question more traditional models of language acquisition. The main question explored in relation to grammatical development is whether the development of Polish and English nominal inflection can be explained by the frequency, complexity and consistency of the input received in both languages (Lieven & Tomasello, 2008). The data show that the order of acquisition of case markings attempted by the child corresponds with the proportions of these markings heard in the input (Dąbrowska & Szczerbiński, 2006) in English but not in Polish. Considering the complexity of the Polish case system and the reduced input in this language (35%), the case markings are also examined in isolation from their grammatical function. In particular, the early emergence of the –i marking is looked at in relation to its 'promiscuity' in the input as well as the complexity and consistency of its application to diverse grammatical contexts. Lastly, frequency, complexity and consistency are discussed as responsible for what appears to be 'regression in acquisition' of the plural/case marking system.

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Mental state verbs in dialogic constructions

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In line with recent work on discourse constructions (e.g. Fried & Östman 2005, Östman, 2005, Linell, 2009, Nikiforidou et al, 2014), this paper aims to provide a Construction Grammar analysis of a family of constructions featuring mental state verbs in the imperative, such as *believe you me*, *believe it or not*, *believe me*, *guess what*, *think again*, *mind you*, and *rest assured*. E.g.

1. *And to catch all of this action of this book, all you would need to do is you logging in to our online bookstore that has these bestselling titles of Dan Brown's signatory on them.* **Believe you me** *this book is riveting and nail biting at its appeasing extent*. /http://www.wantitall-books.co.za/the-lost-symbol-dan-brown/

2. One of the Indians fell off the raft and was drowned. Just swept away. We stared at the water which was pretty choppy and waited for the Indian to surface but he never did. Naturally we said we'd stop work for the day. **Guess what**? The Indians wouldn't hear of it. What good old troupers they are! (BNC/Sketchengine, G1X)

It will be argued that, while inheriting the semantics of the verbs in question and the directive speech act force typically associated with the imperative, these expressions also show idiosyncratic features pertaining to internal and outer syntax (Linell 2005), lexicalization of speaker and addressee, and discourse pragmatics. On the basis of a corpus driven methodology, it will be shown that they contribute a dialogic perspective in allegedly monologic text types of expository discourse, such as articles from periodicals, brochures, and novels, while marking new and unexpected information. Following Traugott (2008), it will be claimed that these constructions are dialogic in perspectivizing preceding or following propositions to imaginary interlocutors, expressive in presenting subjective point of view, and conditioned by particular evaluative contextual features (e.g. *riveting*, *nail biting*, or the exclamative clause, in the examples above). This systematic co-occurrence and their discourse pragmatics suggest that these constructions have developed an intensifying discourse function.

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The cognitive development of collocations: a dynamic model

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Focusing on collocations, this study investigates how the cognitive development of collocational proficiency in native speakers' language attainment could be modelled and explained. Against the background of usage-based approaches such as Construction Grammar (i.a. Goldberg 2006) and Complex Adaptive Systems (i.a. Ellis/Larsen-Freeman 2009), it argues that collocations should not just be regarded as idiosyncratic phraseological items. Thus, this study regards collocations as dynamic linguistic phenomena, which could be seen as subject to constant change rather than more or less static combinations with an additional level of syntagmatic and paradigmatic restrictions.

Based on a dynamic model of the cognitive development of collocations (DMCDC-model) this study tests whether the attainment of collocational proficiency develops from holistically stored items to semi-productive constructions along a u-shaped learning curve (cf. Wray/Perkins 2000). The methodology includes corpus analysis and judgement tasks, which have been applied to trace age-specific development of collocational proficiency within different groups of native speakers. A follow-up study then investigates the degree of analogy and conceptual transfer participants apply to the decoding of a collocation's creative "exploitations" (Hanks 2013). The results suggest that different stages can be observed. A comparative study with learners of English shows that these findings can also be traced in L2 attainment. Yet, it also suggests that, while cognitively the underlying processes for the attainment of collocational knowledge might be similar for native speakers as well as learners of English, the input both groups receive could be responsible for differences as reported for example by de Cock (2004) or Nesselhauff (2004). Furthermore, it supports previous approaches as suggested by Bybee (2010); Ellis (2006); Dąbrowska (2004).

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Perceptual Profiles of Time in Russian and English languages and their Social-Cultural Underpinnings

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The concept of time has been of great importance for contemporary cognitive linguistics (Boroditsky 2000; Boroditsky and Ramscar 2002; Walsh 2003; Evans 2004, 2013; Casasanto and Boroditsky 2008; Casasanto and Jasmin 2012; Filipović and Jaszczolt 2012, 2012a; Moore 2014; etc.). Meanwhile, a number of cognitive aspects of time (in particular, some peculiarities of perceptual profiles of time in different languages) have not yet been investigated. For example, in the Russian language, time is often metaphorized as a living thing that has a face and hands, can perform various cognitive and volitional acts and can communicate with humans in various ways. Such a mode of metaphorization has been much rarer in English. Meanwhile, in the Russian language, an image of time as an object that we can possess, buy and sell has been elaborated to a lesser extent than in English. There is clear evidence that this difference emerged in the wake of differences in dominant sociocultural models in Early Modern Britain and Early Modern Russia: empiricism and the spirit of calculation vs. trust in irrational transcendent power.

These and similar observations lead to some philosophical problems. The ultimate issue that underpins up-to-date researches in cognitive linguistics is the space-time dichotomy, which is concerned with a particular type of time: time in mechanics and in the special theory of relativity. There is no arrow of time on this level, and time is a space-like phenomenon in these domains. Meanwhile, the arrow of time emerges in thermodynamics, and it is the key feature of time as a characteristic of psychological and social-cultural changes. The perceptual profile of time in language represents all types of change; conceptual metaphors of time as living thing and as a resource (money) characterize sociocultural level of time's structure. Importantly, such metaphors are likely to be impossible to apply to space.

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Interactions between bilingualism and non-linguistic spatial processing

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The relationship between language and space has been intensely investigated. The underlying question has been whether one affects the other, usually within the scope of spatial language. For example, Bloom, Peterson, Nadel, & Garrett's (1996) "Language and Space" collected a broad series of perspectives on the different ways they interact. Largely ignored is the possible role of bilingualism. Given that the average person speaks more than one language, and the mounting evidence showing that bilingualism interacts with non-linguistic processes (e.g., Bialystok & Senman, 2004), we investigated what effect bilingualism would have on non-linguistic spatial processing.

We tested 120 participants with a range of linguistic abilities (evaluated using the LEAP-Q questionnaire, Marian, Blumenfeld, & Kaushanskaya, 2007) using four classic spatial tasks adapted from the literature. All had been found to show sex differences in spatial abilities. Two favored women and two favored men. The tasks favoring women were 'The memory game' in which participants attempted to match pairs of cards placed face down, and a spatial array task in which participants had identify items that had been switched. The tasks favoring men were route learning in which participants had to learn a route on a desktop map and mental rotation in which participants had to identify sets of identical rotated objects. Our study, using bilingualism as an independent variable, showed that the sex differences either dissipated or reversed as linguistic ability improved, when controlling for socio-economic status and education level. These findings raise questions beyond those involving the relationship between spatial language and spatial processing, suggesting that language as a cognitive process may share a common neural substrate with space.

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Evidentiality, attribution and epistemic modality: A corpus-based diachronic study of Latin *secundum* NP ('according to NP')

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Based on the *Latin Library* corpus, this paper discusses some previously under-researched meanings of the *secundum* NP construction and traces them over about 800 years. The discussion focuses on the meanings of reportative evidentiality and attribution, a functional category ascribing a proposition to someone as their mental content (opinion, thought or belief). Two sub-categories of attribution are identified: other-attribution and self-attribution. I argue that whereas the former is modal epistemic in nature, the latter is not. My data suggest that the attribution and reportative meanings, sometimes conflated in the literature, are in actual facts distinct senses. My analysis shows that the spread of Christianity acts as a relevant social context for the emergence of the reportative evidential meaning out of the meaning of conformity of *secundum* NP. Contexts of prophecy act as bridging contexts for this semantic change and the associated change in scope. The notions of extended intersubjectivity and interpersonal evidentiality play a central role for the emergence of the reportative meaning. Christianity is also relevant for the development of the new construction evangelium secundum N$_{evangelist}$ 'the Gospel according to N$_{evangelist}$,' possibly emerged as a calque from Greek, and suitable to expresses a theologically important stance about the word of the Lord. The appearance of the attribution meaning out of the limitation sense of *secundum* NP is not linked to Christianity, but emerges at the same time as the reportative meaning. The different evolution paths identified for the meanings of reportative evidentiality and attribution as well as their preference for different sets of argument NPs further support the idea that they are indeed distinct senses. Finally, my research shows that metonymy plays a crucial role in the development of these meanings.

Event-frames affect blame assignment and perception of aggression: An Experimental Case Study in Critical Cognitive Linguistics

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Critical Cognitive Linguistics (e.g. Chilton 2004; Hart 2010, 2014) seeks to show the ideological and/or legitimating effects of language enacted through the conceptual structures and processes specific language usages invoke. While analyses are well-founded, based in a combination of insights from Cognitive Linguistics and social semiotics, they remain speculative. Starting from a series of case studies in Critical Cognitive Linguistics which show that newspapers of different political orientation have different preferences for regular transactive versus reciprocal verb constructions in reporting violent encounters at political protests (Hart 2013a/b), this paper takes an experimental approach to show that the alternative event-frames (Talmy 2000) invoked by these constructions have ideological effects in how participants apportion blame and perceive aggression. Regular transactive versus reciprocal constructions are analysed as invoking one-sided versus two-sided action event-frames respectively. These competing construals serve to distribute blame and responsibility in different ways and attribute to the social actors involved different levels of aggression. Moreover, within these construction types, voice and information sequence are analysed as inviting a point of view from which the event-frame is conceived (Langacker 2008), with consequences in particular for perception of aggression. To test the interpretations that emerge from a Critical Cognitive Linguistic analysis, participants were given a fictitious press report of a political protest in one of four conditions which differed only according to the following constructions: (i) regular transactive, active voice ('protesters attacked police'); (ii) regular transactive, passive voice ('police were attacked by protesters'); (iii) reciprocal, protesters first ('protesters clashed with police'); reciprocal, police first ('police clashed with protesters'). The results show that the use of regular transactive versus reciprocal verb constructions significantly affects blame assignment and perception of aggression. They further show that while voice in regular transactive constructions does not affect blame and aggression perception, information sequence in reciprocal construction does.

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Compound worlds and metaphor landscapes:
A case study of incipient constructionalization

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How do linguistic constructions come into being? This question is of particular interest for cognitive-linguistic, constructionist, and usage-based approaches to language. The study of constructionalization (Traugott & Trousdale 2013) can give valuable clues to the cognitive foundations of language change as well as cultural and social-interactional factors influencing the development of a language. Therefore, the study of so-called affixoids, i.e. compound constituents that have assumed affix-like functions, while their unbound counterparts continue to exist (cf. Booij 2010: 57), is highly relevant to a cognitively plausible understanding of linguistic morphology (cf. e.g. Hüning & Booij 2014).

In this paper, I present a quantitative corpus-based analysis of German compounds with the second constituents *-landschaft(en)* 'landscape(s)' and *-welt(en)* 'world(s)', e.g. *Hochschullandschaft* 'university landscape', *Lebenswelt* 'life-world'. While not everyone will agree that these two items can be seen as affixoids, it can plausibly be argued that they show typical signs of grammaticalization (or constructionalization, in Traugott & Trousdale's terminology), such as semantic bleaching and expansion/generalization (cf. Hopper & Traugott 2003). A diachronic analysis of data from the German Text Archive (Deutsches Textarchiv, DTA) and the Core Corpus of the Digital German Dictionary (Digitales Wörterbuch der Deutschen Sprache, DWDS) shows that over the past century, these items have been combined with ever more first constituents, expanding their semantic scope from literal to highly metaphoric uses.

I will argue that for both constructions, different constructional subschemas (Booij 2010; Hilpert 2013) can be distinguished. The diachronic emergence and loss of these subschemas can in turn give valuable clues to the cognitive and usage factors determining morphological constructionalization. In addition, the case study under discussion provides a prime example of the key role of conceptual metaphor (Lakoff & Johnson 1980) as a major driving force in language change.

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Retrieval not rules: A construction-based analysis of spoken errors in aphasia

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Linguistic research in aphasia has largely been underpinned by generative theory (Chomsky, 1957 onwards). Accordingly, language deficits in this impairment have been categorised into distinct types, such as morphological, lexical, syntactic, etc., with the latter often explained by damage to rule mechanisms (e.g. Grodzinsky, 2000). However, generative grammar is increasingly being questioned, including in aphasia research (Zimmerer et al., 2014), and we have recently highlighted constructivist, usage-based theory (as described by Ambridge & Lieven, 2011) as a promising new perspective from which to characterise aphasic language. In this view, no distinction would be made between, for example, lexical and syntactic errors. Rather, both could be viewed as problems with constructional retrieval, at various grain-sizes and levels of schematicity.

This study uses constructivist, usage-based theory to examine the errors made by six people with a range of aphasia severities in spoken narratives of the Cinderella story. In particular, in-depth constructional analyses are presented of errors that might traditionally be seen as resulting from syntactic deficits.

Results show that the more impaired participants made more word omissions and morphological errors, whereas the more capable speakers instead made more blending errors that may traditionally be linked with syntactic impairments. Analyses suggest that while seemingly different in manifestation, all the error 'types' could indeed be explained by difficulties with constructional retrieval at various grain-sizes and levels of schematicity, supporting constructivist, usage-based theory. Furthermore, the finding of blending errors in the more capable speakers only, fits predictions from our previous work that the constructions available to the most impaired aphasic speakers are very limited in schematicity, meaning that blending errors - involving the merging of at least partially schematic constructions - are less likely. These findings have potential implications both for the classification of deficits in aphasia and their assessment and treatment clinically.

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Language and body: Linguistic knowledge neutralizes automatic valence evaluations

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A previous study of embodied cognition has shown that spatial location is related to valence and affect, such that negative words are responded to faster when their position is lower, and positive words are responded to faster when their position is higher (Meier & Robinson, 2004). This is consistent with the idea that "up is good and down is bad" (Lakoff & Johnson, 1980). In Israeli Sign Language (ISL), location and direction of the sign constitute phonemic elements. Research has shown that semantics can neutralize the automatic and presumably universal valence of phonemic elements (in spoken languages, Garcia & Bargh, 2003; Miron, 1961). We thus hypothesized that none-signing participants will evaluate words according to the direction of movement, such that downward signed signs will be evaluated as more negative than upward signed words, consistent with previous embodiment studies. However, we hypothesized that signing participants will disregard direction of movement information and base their estimates on semantics alone. 17 ISL signers and 24 hearing participants were asked to evaluate the valence of ISL signs. As hypothesized, we found an interaction between direction of signing and language background, whereby only non-signers followed the predictions of embodiment theory. This study supports the notion that bodily movements activate valence categories; but also delimits it, showing how linguistic knowledge can override automatic and presumably universal tendencies.

Graph 1: Valance evaluations by hearing and ISL signing participants by direction of sign
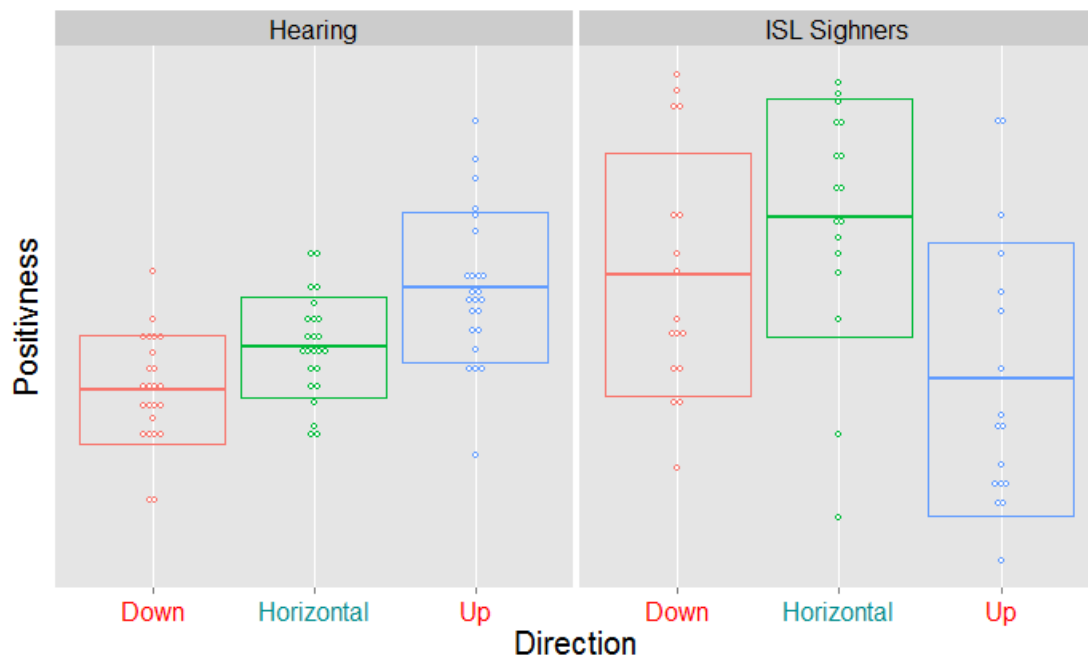
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Constructionalization of Dangling Participial Clauses/Phrases with Intersubjective or Discursive Function

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Dangling participles, whose implicit subject does not correspond to that of the main clauses, are "non-canonical," but their usage is cognitively well-motivated: they describe the speaker's fictive/cognitive process required/presupposed to perceive the content/scene depicted in the following main clauses at the speech time ((1)).

(1) ***Turning left***, *a beautiful scene of Ben Nevis comes into view.*

From such usages in speech domain emerge some meta-linguistic phrases like *speaking of X* or *generally/politically speaking*, with some variations ((2)). The survey on BNC as well as COCA corpus reveals that the meta-comment function is obtained as long as they provide determinative factors for the content of utterance described in the main clauses.

(2) *Speaking {a. of allergies, / b. as your friend, / c. in military terms, / d. to our parents},* (…) .

(2a) provides the topic of, (2b) and (2c) specifies the speaker's stance that affects the content of, and (2d) presents the news source of, the following utterances; In contrast, *speaking {in London/ with humour}* are not acceptable dangling participles in any case, because they are regarded as irrelevant to the content of the main clauses. The survey confirms that (2a) is the most frequent / entrenched pattern among them.

One specific version of (2a), *speaking of which*, shows a further semantic shift.

(3) *Ridge: Unfortunately, I promised the accountants we'd only use this system for business purposes.*
 Brooke: Oh. Darn those bean counters. They're always spoiling our fun.
 *Ridge: "****Speaking of which****, I better go. It's kind of late here," (COCA)*

In (3), *which* loses its explicit antecedent and nothing seems to be related: instead, the whole phrase functions as a topic change marker, here to interpersonally signal the closing of the conversation. This new form-meaning pair has a similar phrase like *talking of which*. Such analogical expansion suggests the (beginning of) a new constructional schema extraction (Traugott and Trousdale (2013)): a new construction emerges from a specific dangling participial environment and some specific expressions further shows a further constructional changes based on frequency and entrenchment.

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The (in)compatibility of empty elements and constructional autonomy? Discursive ellipses from a constructional perspective.

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The paper deals with the question if fundamental assumptions of constructional approaches are compatible with specific types of elliptical structures in spoken interaction.

Even though researchers of constructional approaches reject the idea of empty categories, argument omissions are of a great interest for their approaches. Whereas some researchers (e.g. Fillmore 1986; Goldberg 2001) try to avoid the notion of empty categories by stressing semantic restrictions and a non-topical status of the omitted arguments, other approaches (e.g. Ruppenhofer/Michaelis 2010) consider the importance of the discourse context and genre. However, none of the approaches deals in detail with the relationship of argument omissions and the denial of empty elements, nor with the problems that arise when dealing with naturally occurring data. Pursuing an interactional linguistic approach I will deal with this by analysing grammatical form and sequential and semantic relations of discursive ellipses, i.e. 'analepses' in spoken German. Analepses omit arguments that occurred as antecedents in prior utterances, such as "die suppe is lecker" – "ja, [ ] schmeckt gut" (*the soup is tasty – yeah, [   ] tastes good*). Analepses exhibit crucial problems with two main assumptions of constructional approaches (cg. Fillmore, 1986, Goldberg 2006), i.e.

1) the rejection of empty elements: the semantics of analepses is not interpretable without "filling the gap" by its antecedents. Given the form/meaning-correlation, the "semantic gap" also needs a syntactic "gap";

2) the autonomy of constructions: from 1) follows that the semantics of every single analepsis is strictly dependent on the context, its autonomy is debatable. For many analepses it is not possible to find overarching semantic features of the antecedents, thus the antecedent can only rarely be identified via frames (cf. Fillmore et al. 2012, esp.334-336) or as a schematic part of an "analeptic construction". If it is not a construction, but the result of generalizations or abstractions over constructions (cf. Hilpert 2015), it remains unclear how those generalizations might explain the *in-situ*-interpretation of semantically dependent utterances.

The analysis draws on a corpus of 34 hours of spoken German, including informal interactions between friends, roommates, couples etc., as well as interactions in institutional settings like political talkshows.

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The Effect of Age in Relation to Occupation When Interpreting Ambiguous Metaphors about Time

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The English language exhibits two deictic space–time metaphors: the *"moving ego"* metaphor, where one conceptualizes the ego as moving forward through time, and the *"moving time"* metaphor, where a one conceptualizes time as moving forward towards the ego (Clark, 1973, pp.51). This has been measured by experiments which require participants to respond to the question: "The meeting originally scheduled for next Wednesday has been moved forward two days. Which day has it been moved to?"(McGlone & Harding, 1998, p.1217). Previous research has demonstrated that lifestyle and occupation may have an effect on the mappings from space, the source domain of the metaphors, to time, the target domain (Duffy & Feist, 2014). This investigation expands on prior research about lifestyle and occupation in relation to space-time mappings by comparing additional gathered data and incorporating the additional factor of age. Furthermore, this paper examines the effect both work and study in different capacities (such as working full time while studying part time) have on space-time mappings. I propose that while occupation has an effect on space-time mapping, differences in age among occupational groups may increase the likelihood of full time workers undertaking a moving time mapping and full time students undertaking a moving ego mapping.

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Cyclic gestures and complex sentence constructions

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Co-speech gestures have been shown to interact with spoken language in the co-creation of meaning in interaction (Kendon, 2004; McNeill, 1992). Although we know that co-speech gestures are tightly tied to language processing and production, less is known about the specific functions that gestures serve in interaction. I suggest that co-speech gesture meanings can be systematically studied through careful description of the functional-semantic properties of the spoken language constructions with which gestures co-occur. For example, if a particular gestural form is recurrently used with spoken language constructions sharing common semantic properties or discourse functions, it can be inferred that the gesture meaning is related in some way to those semantic and discourse functions.

Using data collected from American English talk shows, I perform fine-grained semantic analyses on spoken language constructions co-occurring with cyclic gestures. Cyclic gestures are those displaying a "continuous circular movement of the hand" (Ladewig, 2011). In this study, I focus on complex sentences (i.e., multiclausal constructions), a subset of construction types with which I have found speakers to recurrently use cyclic gestures in the data. Cyclic gestures recurrently occur at clause boundaries with coordination and adverbial subordination. Drawing on tools from construction grammar (Croft, 2001; in prep) and cognitive grammar (Langacker, 1987; 2008), I explore properties of information structure expressed in the complex sentence constructions occurring with cyclic gestures. In order to determine whether semantic distinctions are overtly coded in the gestural expression, I describe formal properties of the cyclic gestures (e.g. direction of movement, number of rotations, handshape) and look for patterns across the formal expression of cyclic gestures and the semantic properties of the complex sentences with which they occur.

My findings suggest that just as complex sentence constructions are used to encode different types of information (e.g., pragmatic assertion, figure-ground relations, causal or temporal relations), certain formal variants of cyclic gestures used with complex sentences correspond to different aspects of information structure. This study contributes to a growing body of research exploring the multimodal nature of linguistic constructions.

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The phonology of attributive vs. predicative adjectives

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This paper builds on Berg's (2000) suggestion that adjectives (in general) are phonologically more similar to nouns than to verbs. Berg explains this with reference to processing: since adjectives often form constituents with nouns, separate from verb phrases (e.g. [My old friend] [arrived punctually]), phonological similarity between adjectives and nouns might facilitate comprehension. In addition to these phonological and syntactic affinities, Berg also points to literature on semantic and pragmatic similarities (e.g. Croft 1991). Together, Berg labels these striking affinities across the different levels of language the "cross-level harmony constraint".

The suggestion that English adjectives pattern with nouns may be problematic from the viewpoint of Croft (2001), who suggests that property predicates should in fact not be considered as adjectives, as they share their propositional act function with verbs, not with property modifiers — which are adjectives, in Croft's terms. Thus, Berg's cross-level harmony constraint would actually predict that adjectives that are prototypically predicative (e.g. glad, likely) should be more similar to verbs, not only syntactically and pragmatically (pace Croft 2001), but also phonologically.

I analyse the phonology of around 100 prototypically attributive vs. prototypically predicative adjectives taken from Biber et al. (1999) and Shibuya (2005), relying on phonological properties identified by psycholinguists (e.g. Kelly 1992, Monaghan et al. 2005) and discussed also by some cognitive linguists (Taylor 2002, Hollmann 2012, 2013, 2014). Regression analysis of these properties supports the hypothesis: attributive adjectives are phonologically more similar to nouns, whereas predicative adjectives are closer to verbs. Thus, we may refine Berg's cross-level harmony constraint as regards adjectives: property modifiers indeed pattern with nouns, but property predicates are more similar to verbs. As a more general conclusion I suggest that phonology deserves more serious consideration in research on lexical categorisation than it usually receives.

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Conceptualization of TIME in Kavalan

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This study sets out to investigate the conceptualization of TIME in Kavalan, an endangered Formosan language spoken in the Eastern part of Taiwan. Cognitive linguists propose that most languages maintain TIME-SPACE metaphoric relations; in other words, language users understand abstract concepts of TIME via bodily experiences in the concrete domain of SPACE. Such a cognitive mechanism is believed to be "biologically determined" and thus universal (Lakoff 1993:218; Radden 2003; Lakoff & Johnson 1980; Gibbs 1994; among others). However, our linguistic data in Kavalan do not support the claimed universal view, in that the time concept in Kavalan is highly sensitive to activities, i.e., event-based. Both linguistic and cultural factors play a significant role here. Kavalan does not have a generic noun denoting the abstract concept of TIME, and such linguistic characteristics could have discouraged the language users from thinking about TIME in terms of spatial entities. In addition, Kavalan has abundant morphosyntactic devices that enable its speakers to talk about time independent of space-time mapping. Second, the cultural practices in the language demand attention to event sequences and thus have encouraged the language users to employ a metonymic model to talk about TIME in terms of activity/event time instead of the precise clock time. The findings of this study may contribute theoretically to a better understanding of TIME-SPACE metaphoric mapping relations in Kavalan and may also contribute to a clearer picture of the emergence of semantic meanings of TIME from a cross-linguistic perspective.

Key words: time, space, metaphorical mapping, Formosan language

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Kinda Grammaticalized:
New Perspectives on the English SKT Construction
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Phrases like *this kind of thing* and *three types of people* are instantiations of the English SKT Construction (Denison 2002), which can be formally defined as:

(1) Determiner/Quantifier/Modifier + SKT word (*sort*/*kind*/*type*) + of + NP

While various functions and processes of grammaticalization of this construction have been identified (e.g. Traugott 2008; Brems & Davidse 2010), available studies emphasize the more grammaticalized functions, such as the "postdeterminer" use (Denison 1998) as in *these kind of things*, and the "degree adverb" use (Traugott 2008) as in *I kinda like it*. Little attention has been paid to the more basic "partitive" use (Traugott 2008), as in *that kind of man*, where the function of the construction is to select one or more members ("that kind") of a group ("man"). By observing diachronic data, however, the present study suggests that even the "partitive" use has grammaticalized.

Combinations of SKT words (*sort*/*kind*/*type*), NPs (*man*/*person*/*thing*), and their plural counterparts (e.g. *sort of thing*, *types of person*, *kind of men*) were searched on Google Ngram (Michel et al. 2011); token frequencies from 1700 to 2008 were compared. Results show that, before circa 1850, the number of the NP remains plural regardless of the number of the SKT word; the preferred singular form of, for example, *these kinds of people* would be *this kind of people*, unlike Present-Day English, in which the number of the NP agrees with the SKT word. This indicates that the change in (2), which led to the more grammaticalized "postdeterminer" and "degree adverb" functions (Traugott 2008), is already at work here.

(2) [SKT [*of* NP]] > [[SKT *of*] NP]
    Head = SKT   > Head = NP
    SKT + Mod   > Mod + NP

These findings demonstrate that the "partitive" use has grammaticalized and is no longer partitive in Present-Day English, calling for a reexamination of the construction.

Keywords: construction grammar; grammaticalization; English SKT Construction; diachrony; construct.

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Construal of Spatial Relationships in Mandarin and English: "shang" and "on"

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How do speakers of different languages describe various static spatial relations? Previous studies reveal that the choice of a preposition is attributed to various factors (Bowerman & Pederson1992, Vandeloise1995, Feist2000, Wolff &Zettergren2002, Zwarts2010). Bowerman & Choi (2001) elaborated on the crosslinguistic differences in categorizing static spatial relations, which indicate that Mandarin and English are typologically homogeneous in spatial semantics. In the present study, we conduct a usage-based contrastive study in spatial meanings of prepositions in Mandarin and English, and account for the cognitive motivation for their differences. We examine the spatial meanings of "shang" from the Mandarin Corpus CCL and its equivalent "on" in the English Corpus COCA.

The first finding is about the typological features of "shang" in Mandarin and "on" in English. On the one hand, the data prove that "shang" and "on" are closest equivalents, in describing spatial relations, such as attachment, support, encirclement, etc. On the other hand, there exists typological heterogeneity, that is, (1) there are interwoven mappings between "shang" and "in", and "li" and "on"; (2) "shang" overlaps with some other prepositions, such as "over", "around", "above"; (3) there are cases in which both "shang" and "li" are acceptable for describing a spatial relation in Mandarin but only "on" is acceptable in English, and vice versa; and (4) there are also cases in which many prepositions in Mandarin and English, besides "shang" and "on", are acceptable and interchangeable for describing the same spatial relation.

The second finding is about the cognitive motivation underlying the choice of a preposition to depict a static spatial relationship in Mandarin and English. The choice of a preposition is attributed to the speaker's construal in terms of specificity, focusing, prominence and perspective (Langacker,1987,2008). The discrimination between tight and loose attachment, and of other specific features by native speakers of Mandarin and English results in their language-specific representations of spatial relationships. The finding that the basic spatial concepts like support, containment and attachment are compositional supports the notion that there exists "a principled distinction between semantic structure and conceptual structure" (Evans 2010).

Generating Lexical Data for Novel Analogies between Computer Graphics Publications using Dr Inventor

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The "big data" era offers novel challenges for accelerating scientific progress and enabling new modes of discovery (Honavar 2014; Singh & Reddy 2014). We present some work on the "Dr Inventor" (O'Donoghue et al. 2014; O'Donoghue et al. 2015) creativity support tool that aims to uncover novel analogy-based comparisons (Gentner 1983; Fauconnier & Turner 1998) between academic publications.

Dr Inventor does not work directly on the publications, but instead generates Research Object Skeleton (ROS) graphs. Generation of a ROS graph starts when a pdf document enters the Text Mining Framework (Ronzano & Saggion 2015), addressing problems arising from the layout, text flow, images, equations etc. A parser generates the dependency tree for each sentence and, like Agarwal et al. (2015), we apply a set of rules to the dependency trees, generating connected triples of nouns and verbs forming the ROS graph. Crucially, multiple mentions of the same concept are uniquely represented within each ROS, using the co-reference resolution output from the dependency parser.

ROS graphs enable the application of Gentner's (1983) structure mapping theory to finding and evaluating analogies between ROSs - and thus between publications. This uses a combination of computational power and topologically driven analogical retrieval. Semantic web annotations (Ruiz-Iniesta & Corcho 2014) of sentences allow Dr Inventor to explore analogies between the "background" of one paper and the "approach" of another. Dr Inventor is being evaluated by experts in computer graphics for its ability to discover novel and useful analogies, inspiring its users and igniting their creativity.

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Lewin, Asch, and Arnheim: Some thoughts on the history of Cognitive Linguistics
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The role of Gestalt Psychology in the formation and early development of Cognitive Linguistics has been heavily underestimated. The influence goes well beyond well-known adaptations such as the *figure-ground* (aka *trajector-landmark*) segregation or the concept of a *gestalt* (such as in *constructions* or *blending*). In fact, a closer inspection reveals that gestaltist thinking permeates almost all aspects of the Cognitive Linguistics enterprise (cf. Sinha 2007). The poster will concentrate on the important but as of yet almost unknown contributions by three scholars that share a gestaltist and Jewish background in Central Europe as well as a later emigration into the United States.

Solomon Asch (1907-1996), better known as social psychologist, in 1958 anticipated what over twenty years later has been called *conceptual metaphors* (Lakoff & Johnson 1980 [2003]). Furthermore, the assumption of a close relationship between *conception and perception* as postulated by Langacker (1999), for instance, has been pointed out in 1969 by Rudolph Arnheim (1904-2007), who also gave an early account of so-called *construal* (see Ross 1987). But the single most important contribution has been made by Kurt Lewin (1890-1947), whose 1936 *topological psychology* clearly had a most profound impact on several sub-disciplines of Cognitive Linguistics, including *force dynamics* (Talmy 1988) and *image schemas* (Johnson 1987), as well as the *event structure metaphor* (Lakoff 1990). Lewin is also known for seeking what today is usually called domain general explanations, which is the very basis of Cognitive Linguistics (i.e., the generalization commitment). The poster demonstrates these unknown contributions beyond any reasonable doubt and argues for a reevaluation of the origins of Cognitive Linguistics.

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A Typology of Question Marking in Northeast Asia

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One of the most promising fields of cooperation between language typology and Cognitive Linguistics are so-called conceptual spaces, aka semantic maps (Croft 2003). This paper will focus on one particular space recently proposed by Hölzl (2015) for the marking of questions. While previous studies to question marking tended to focus on polar (or yes/no) questions and their different marking strategies (particles, word order etc., e.g. Miestamo 2011, Dryer 2013), this new approach has a broader basis and includes the marking of other question types (such as wh or content questions, focus questions, and alternative questions) as well as categories that are related to questions via grammaticalization (e.g., negation), cf. Dixon (2012). This allows the comparison of the semantic scope of different question markers from one or different languages. The original study was based on a global sample of 50 languages and identified several common cross-linguistic patterns. For example, polar and content questions tend to be marked differently, while focus and alternative questions often coalesce. In order to test both the conceptual space and the proposed typological tendencies, the present paper makes use of a larger sample of about 120 languages from 14 language families spoken in Northeast Asia, defined as the region north of the Yellow River and east of the Yenisei. The results will be presented with help of the revised conceptual space as well as geographical maps that roughly follow the style of the *World Atlas of Language Structures* (e.g., "Are polar and alternative questions marked the same way or not?"). In this way, both common marking patterns as well as areal groupings within this region can be established. In an ideal case the universally valid conceptual space as well as robust cross-linguistic tendencies allow inferences on the conceptual underpinnings of language, e.g. whether and how different question types are related conceptually. The paper is part of an ongoing Ph.D project.

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Does Direction Matter? Manner Encoding in Speech and Gesture
by L1 English-speaking L2 Japanese Bilinguals

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This study of the effects of manner saliency on bilinguals' construal of motion events examines the possible directional consequences of L1-L2 typological differences. Researchers using Talmy's framework (2000) have compared bilinguals' motion event construal with that of monolinguals in both speech and gesture (e.g. Brown, 2015; Brown & Gullberg, 2008; Choi & Lantolf, 2008; Negueruela et al., 2004, Stam 2010). Brown (2015) compared how learners of English (satellite-framed) with Japanese (verb-framed) and Chinese (equipollent) as L1s encoded manner in both their L1 and L2 as against a monolingual baseline. Results suggested universal features of development in manner encoding in L2 (i.e. low level of manner encoding in L2 English), while construal of manner in gesture in bilinguals' L1 and L2 revealed influence from both the source and target languages, suggesting a convergence. However, as some have argued (e.g. Eckman, 1977), which language functions as source and which target may have a significant impact on bilinguals' performance. We examined whether this is the case in manner construal using L1 English-L2 Japanese bilinguals' motion event descriptions in both speech and gesture in 13 L2 participants' narratives elicited by animated cartoon (Sylvester and Tweety Bird cartoon, *Canary Row*). Results showed that, unlike the previous findings, manner encoding in speech in L1 English was significantly different from L2 Japanese, each approaching the monolinguals' performance patterns reported by Brown (2007). With gesture, bilinguals' L2 performance resembled that of Japanese monolinguals, while gesture in English yielded a pattern somewhere in between that of Japanese and English monolinguals. Most importantly, manner encoding in gestures in L1 and L2 was significantly different. Based on these results, we argue that the direction of L1-L2 typology does matter and discuss its implications.

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Shifting between two scripts analogous to shifting between the two language: a case of Serbian bi-alphabetism

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Three features of writing system make Serbian an intriguing target for studies of linguistic processing: the shallow orthography, the discrete nature of the scripts (Roman and Cyrillic), and ambiguities introduced by overlaps between the scripts. While the most sounds in Serbian writing system are represented by different letters (such as the voiced velar plosive /g/ as 'G' in Roman, and 'Г' in Cyrillic), the two scripts share some of their letters (A, E, O, J, M, T, K), whilst, some letters appear in both scripts, where they represent different sounds (the letter 'B' represents the voiced bilabial plosive /b/ in Roman, but the voiced labio-dental fricative /v/ in Cyrillic). In the present lexical decision study, we contrasted (among others) a group of words which were constructed of ambiguous-and-shared-letters only with a group where we replaced one letter to make the ambiguous-and-shared-letters pseudo-word. Within two presentations of the same set of words we counterbalanced the order of presentation of Roman and Cyrillic alphabets. We observed the 3-way interaction, showing the inhibition effect with the ambiguous-and-shared pseudo-words in the first phase, followed by the facilitation effect in the second phase, except when shifting from Cyrillic to Roman script.

We conclude that the both scripts are activated simultaneously and that facilitation is present in the script which was first acquired (Cyrillic) similar to the effect earlier reported with native and foreign language processing when proficiency is high in both (Proverbio et al., 2004). The on-going research deals with the examination of the neural correlates of the described differences.

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Mental representation of motion events in Chinese and English children
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Previous studies of motion event typology indicated that language-specific properties influence children's L1 acquisition of motion description (e.g., Choi and Bowerman, 1991; Hickmann et al., 2009). For instance, in expressing caused motion events showing a rich variety of semantic components (path, cause and varied types of manner), children from three years onwards tend to include denser semantic information in Chinese (equipollently-framed) than in English (satellite-framed) because of the availability in Chinese of an easily accessible resultative verb compound which facilitates the simultaneous encoding of varied semantic components for motion (Ji, 2014). The present study extends the research along this line by investigating whether the effect of language typology attested in L1 acquisition can manifest itself in the maturation of children's spatial cognition. Specifically, monolingual speakers of English and Chinese at three age levels (i.e., 3 years, 8 years and adults) are invited to judge the similarity between caused motion scenes in a match-to-sample task. The results reveal, first of all, that the two younger groups of 3-year-olds are predominantly path-oriented, irrespective of language, as evidenced by their significantly longer fixation on path-match videos rather than manner-match videos in a preferential looking scheme. Using continuous measurement of reaction time, older children and adults show significant variations in spatial cognition that can be related to linguistic differences: English speakers tend to be more manner-oriented while Chinese speakers are equally manner- and path-oriented. Generally, our findings suggest a pattern which links typological differences in linguistic encoding of motion with regularities in spatial thinking: children may have the same pre-linguistic potential for conceptualising path as the most salient and central ingredient for motion. However, as they develop linguistically, they are selectively prompted by the structure of their respective input to view manner and/or path as more salient.

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The Semantics of Localizer *Shang* in Contemporary Mandarin Chinese

---Applying the Principled Polysemy Model

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Spatial terms describing embodied experience of location in linguistic data can indicate the diverse ways we conceptualize the spatio-physical world. Chinese localizer *shang* 'above' is used after nouns to delineate relative position; its meaning in constructions can be specific or schematic depending on the way it is used in a specific context (Peyraube, 2003). This corpus-based study explores the meaning of 690 instances of the localizer *shang* in three types of genre (reportage, science fiction and academic writing) in the UCLA Written Chinese Corpus. Based on converging evidence, we identify the proto-scene (the core sense) for localizer *shang,* which designates a trajector (TR) located on the surface of the landmark (LM). The linguistic evidence based on the *Principle Polysemy Model* (Tyler & Evans, 2003) includes four criteria:1) earliest attested meaning of localizer *shang*; 2) spatial configuration of TR and LM in which localizer *shang* is used; 3) predominance (frequency) of the sense in localizer *shang* polysemy network; 4) the usages of localizer *xia '*below*'* (a contrast with localizer *shang*). Wu (2014)'s experimental study on the comprehension of spatial senses associated with localizer *shang* by Chinese children also provides empirical evidence in supporting the proto-scene proposed in this study. The proto-scene of *shang*, making up 40.1% of the data, has a similar meaning to English ON THE SURFACE OF. Other derived senses contributing to the semantic network of localizer *shang* correspond to METAPHORICAL ON THE SURFACE OF (24.8%), AT (11.4%), IN (8.6%), METAPHORICAL IN (8.3%), METAPHORICAL AT (3.1%), METAPHORICAL ON AND ABOVE (2.7%), ON AND ABOVE (0.6%), and OVER (0.4%). In addition, four semantic functions of localizer *shang* are proposed: 1) converting a 'thing'-concept into a 'place'-concept; 2) materializing a virtual concept; 3) applying a geometric property of planarity to the LM; 4) ascribing a region of activity to the TR. It is revealed that the various extended senses associated with localizer *shang* are linked to its proto-scene systematically by multiple factors, including functional elements of 'supporting' and 'enclosing' offered by the LM of *shang* to its TR, force dynamics, metaphors such as ACTIVITIES ARE LOCATIONS (e.g. 'conference *shang*' which means 'at the conference') and metonymies such as WHOLE FOR PART (e.g. 'computer *shang*' which means 'on the screen of the computer' in a specific context). The results of the analysis also demonstrate that localizer *shang* tends to have particular functions in the three different genres to depict spatial and non-spatial domains.

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Reflexive verbs in Polish: compositional or formulaic?

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Reflexive expressions used with transitive verbs convey events where the same participant fills the agent and the patient role, e.g. 'John saw himself on TV'. Polish, like other Slavonic languages (e.g. Czech and Russian), has two markers of reflexive-like relations: 'się' and 'siebie'. Within Cognitive Linguistics Dancygier (1997) and Tabakowska (2003), in the spirit of Kemmer (1993), argued that the heavy reflexive marker 'siebie' encodes situations where the agent and the patient roles are filled by the same participant and the transitive meaning is still perceivable. In contrast, the light reflexive (or middle) marker 'się' denotes situations where the agent and the patient merge into one entity – it has a role-neutralising function (Dąbrowska, 1997, p. 325).

Previously, I conducted a behavioural profile (Divjak & Gries, 2006) study of się and siebie on data from the plTenTen corpus; I established that 'się' might not constitute one schematic construction – it seems to be a number of low-level schemas. Some verbs occur more frequently with się than without it, e.g. golić 'shave'. Due to that, some się-verbs (i.e. low-level schemas) might actually be the default option encoded in native speakers' grammars, instead of being compositionally derived from a transitive verb and a schematic się.

Using the self-paced reading paradigm (Just, Carpenter & Woolley, 1982) I investigate experimentally the hypothesis that some structurally more complex expressions are cognitively more basic than their simpler counterparts. Subjects read short text fragments that contain three versions of very similar situations with the same verb: transitive, się and siebie and their reading times are measured. If a verb occurs more frequently with się, the subjects should experience a processing penalty (indicated by longer reading times) when the fragment contains siebie or is transitive. This would indicate that those verbs are not derived compositionally but rather retrieved as a unit.

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Speaking of Music: The Metaphorical Basis of Musical Space Motion

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Over the past decades, conceptual metaphor has been shown to be a vital tool for conceptualizing a variety of target domains ranging from very basic aspects of experience to more abstract concepts. The target domain of music represents an interesting case in question since its fundamental elements as well as more elaborate descriptions of it seem to be exclusively expressed metaphorically. Musical progression and musical development are largely understood in terms of the source domain of motion in space. Johnson and Larson (2003) claim that this is because our conceptualization of music is based on more general metaphorical conceptions for time and on primary mappings that pertain to the Event Structure Metaphor.

In the present study, a sample of 10,000 words from academic musicology journals and newspaper concert reviews was analysed with respect to metaphorical expressions and their underlying conceptual mappings to find out whether they conform to what has been previously (and to a large extent introspectively) claimed in the literature and in order to give a more detailed and empirically-based description of conceptual metaphors for music. Metaphorical expressions were identified applying MIPVU (Steen et al. 2010) and grouped into potential conceptual metaphors according to their source and target domains.

The identified metaphorical expressions reveal a complex system of potential mappings between spatial source domains and target domain elements like pitch, melody and harmony suggesting that music is not simply conceptualized in terms of one single space but that it actually evokes different kinds of spaces, of varying complexity, dependent on the specific musical target domain: a horizontal space corresponds to temporal progression, a vertical space corresponds to change in pitch, and a far-remote space corresponds to musical key.

The findings aim to shed light onto how metaphors for music are motivated by examining their possible relation to more general primary mappings like time is motion and change is motion. Furthermore, it will be shown that the source domains of motion and space are employed for different purposes giving rise to distinct conceptual mappings which vary in their function as well as their formal characteristics (e.g. whether a metaphor is signalled or not). Thus, the paper hopes to contribute to research in Conceptual Metaphor Theory by showing how a more fine-grained analysis of metaphor in discourse may present a more revealing account of possible connections at the conceptual level.

Keywords: conceptual metaphor, music, time, event structure metaphor, motion

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Framing Young Offenders – A Study of Semantic Frames and Perception. From Cognitive to Experimental CDA.

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The present study integrates critically-oriented text analysis with experimental methods from cognitive psychology to study a social problem. Taking a cognitive-linguistic approach to CDA (Hart, 2011, 2014), in this article I examine: 1) the linguistic construction of minors (viz.: people aged 13 to 18) in a corpus of 489 articles from Uruguayan newspaper "El País" in the context of the so-called "Criminal Imputability Plebiscite"; and 2) the effect of such conceptualizations on how a group of readers perceive youngsters in situations outside these texts. In the first part of this study, I identify the semantic frames (Fillmore, 1982) in terms of which youngsters are represented across the corpus. I use FrameNet (Baker, Fillmore and Lowe, 1998) as a source of reference in tagging these frames and defining their relations. In the second part of the study, I expose a group of participants to a sample of texts from the corpus and provide evidence that the systematic association of young people with crime found in part 1 makes participants more likely to judge an age-ambiguous perpetrator of a crime as a minor. Throughout, I try to exploit the potential of cognitive CDA to provide empirically grounded explanations for the constitutive nature of discourse on social action and seek to address the dearth of experimental CDA studies.

Keywords: Critical Discourse Analysis, Cognitive CDA, Experimental CDA, Construal Operations, Construal Priming, FrameNet, Youth Crime, Media Reports, Uruguay.

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Analysing (conventionalized) indirect speech acts as constructions - what developmental data can tell us

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The current study addresses the issue of conventionalized indirect speech acts (ISAs, e.g., *Can you pass the salt?*) from a usage-based, construction grammar perspective.

Within traditional approaches, the interpretation of ISAs involves the hearer's starting out with and eventually rejecting the 'literal' interpretation. However, more recent cognitive approaches suggest that utterances which are conventionally used as ISAs become entrenched as constructions, concluding that they are not to be regarded as 'indirect' after all (Stefanowitsch, 2003).

It is an open question, however, whether these ISAs actually go through a stage of having to be interpreted 'ad-hoc' before becoming entrenched as constructions. Furthermore, it is not clear if/in how far these conventionalized ISAs are associated with particular prosodic characteristics. Since linguistic conventions are established during language acquisition, the analysis of developmental data promises to be particularly enlightening.

The current study is based on two high-density CHILDES-corpora (Thomas: Lieven, Salomo & Tomasello, 2009; Leo: Behrens, 2006). The focus is on two English constructions (*Can I X?*; *Why don't you X?*) and their German equivalents (*Kann ich X?*; *Warum X Du nicht X?*) which were coded for discourse function (n for English = 715; n for German = 123).

Analyses show that *Can I X?*, *Kann ich X?* and *Why don't you X?* are predominantly used as ISAs by both the caretakers and the children, i.e., they exhibit a very consistent mapping between form and 'indirect' function, suggesting that they are learned as direct mappings of form and 'indirect' function right away.

Analyses on the nature of the last pitch accent in the intonation contour of the English ISAs are still ongoing. However, so far the data suggest that prosodic characteristics should indeed be taken into account in order to arrive at a comprehensive description of (conventionalized) ISAs as highly entrenched constructions.

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Decoding time and place through cognitive analogy and mapping

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In this paper I argue that cognitive analysis can be successfully used to elucidate the process of decoding texts with intertextual references. There are several reasons for this. Firstly, cognitive analysis can elucidate the process of inferencing which is crucial for decoding intertextual references through analogy and mapping between different conceptual domains. Secondly, cognitive analysis can offer insights into the process of text comprehension by introducing fragments of personal and socio-cultural cognition into the mental model of the text.

In this paper I draw mainly on van Dijk's cognitive theory, and specifically, on the concept of the cognitive model of a text and the concept of ideology as a constituent of such model. Being the starting point for my analysis, van Dijk's theory is modified to accommodate specific features of literary texts in general and texts with intertextual references in particular.

In this paper I focus mainly on deictic parameters in the mental model of Pasternak's poem 'Hamlet'. On the surface, the narrative of the poem develops in a theatre where an actor playing Hamlet is about to make his appearance on the stage. However, as the poem progresses, the reader becomes increasingly aware of references to different times and places. Decoding these references depends on the acceptance of an analogy between the character, time and place at the explicit level of the poem and other fragments of knowledge stored in long-term memory. As a result, the time and location of the poem are strangely ambiguous: the explicit location is the stage before the performance starts, but there are also the contexts of Russia in 1917-1918 and the USSR in 1946, as well as Judea during the lifetime of Christ. For the analysis of time and place in texts with intertextual references I introduce the concept of deictic switch.

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'Man becomes a dog': The difference between metaphor and simile in the corpus

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This study seeks to distinguish between metaphor and simile in figurative expressions from proper usages in the Japanese corpora. Firstly, there has been much debate in the literature when analysing similes and metaphors (e.g., Barnden, 2016). The two terms generally differ in terms of how explicit it compares two objects, with similes being the more explicit. However, simile and metaphor use is dependent on the topic and vehicle (Chiappe & Kennedy, 2001), and they are not always interchangeable (Grucksberg & Haught, 2006). Studies with actual usages from corpus are also progressing (e.g., Wang et al., 2015).

We investigate the differences between similes and metaphors through an analysis of their usage. We first obtained data by surveying metaphor and simile usages in the corpus (topic: human, vehicle: animals), and (by analysing the use of figurative expressions in video content written works.

In the surveys, the metaphors and similes were properly used in meanings each usage. For a example; the case of 'dog' (where the topic: human, vehicle: dog, the frequency of 'dog' in the Balanced Corpus of Contemporary Written Japanese: 10,026 samples), when used with agent (19.5%) and miserable (18.3%), "dog" appears as a metaphor (169 samples); when used with various actions (25.4%) and appearance (14.3%), the term appears as a simile (252 samples). For other animals (e.g., rabbit, lion), the same trend occurs such that shapes and movements (visual elements) appear as similes, while general (idiomatic) properties are seen as metaphors. Moreover, for the form 'A becomes B,' the topic and vehicle can actually belong to the same category. Even without 'become', the metaphor 'He (human) is a dog' implies that 'He becomes a dog' through the category of change. We could interpret 'His tail wagged' (idiomatic expression) as a metaphor by processing it as 'He became a dog' context. Furthermore, we observed that figurative expression usages was limited to similes in our experiment works, and the simile expressions used in the same visual scene were individual and novel to the participants.

Metaphors were subsequently identified to be used restrictively and idiomatically when we are able to process the topic 'becoming' the vehicle from context. On the other hand, similes are more versatile but are limited to visual elements.

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Figure-Ground Reversal in Fictive Motion Expressions

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This paper explores Figure-Ground (F-G) reversal in English and Chinese fictive motion (FM) expressions. Talmy (2000, pp. 311-320) observed that language displays F-G organization, most obviously in clausal organization of locational predicates. In *The bike is near the house,* the bike is selected as the attentionally-prominent subject/Figure and the house as a locational reference point, hence Ground. This organization most naturally aligns with the perceptual F-G organization of the scene. But linguistic Figure and Ground need not align with canonical perceptual Figure and Ground. *The house is near the bike* is natural in contexts where the visually Figure-like bike is special or famous and thus can serve as the linguistic reference point/Ground for location of the house as Figure (Talmy 2000, p. 316). We call this unusual lack of alignment **F-G reversal**.

Our data comprise naturally-occurring FM descriptions extracted from the COCA corpus for English and from Chinese texts collected for the study of FM in Ma (2016). Among the FM examples in our data, we find that F-G reversal occurs specifically where there is a strong asymmetrical relation between the two entities in the relation, in terms of their intrinsic perceptual properties. In English, *On both sides of the road large trees bent forward over us* describes a scene of travellers moving along a road under trees. But the construal is of fictively moving trees as linguistic Figure, rather than the actually moving (perceptually Figural) humans portrayed as Ground. Similarly, in Chinese 高耸的洋楼在夜的云霄中扑迎着雪花 'The towering western-style building rushes at the snow in the night clouds', the visually Ground-like building is construed as a linguistic Figure fictively moving upward against a backdrop of snowflakes (Ground). But the snowflakes, as small moving objects, are perceptually Figure-like.

We claim that this pattern is part of a general interaction of FM (Talmy 2000, pp. 99-175) with F-G organization in language. F-G reversal harmonizes functionally and cognitively with FM: both are linguistic-conceptual manipulations reconstruing a canonical perceptual scene in an unusual way to enhance its expressiveness and vividness. Together, they select as a moving Figure what is in the factive scene a Ground. Our analysis provides a motivation for F-G reversal with FM in terms of two interrelated cognitive-communicative strategies that relate to the nature of the Ground and its intrinsic properties of dimensionality and function. The types of Ground-like elements found to be relevant relate to the "where-words" identified in the linguistic literature and the "large-scale" or "geographical" entities of Naïve Geography (Mark et al. 1999).

FM studies have so far focused on facets of motion and path (e.g. Matsumoto 1996, Matlock 2004). Our study takes FM research in a new direction by studying the nature of the participants as well. Doing so leads to generalizations that deepen our understanding of FM and link it with F-G organization, previously treated separately.

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Comparison of Source Domains in Russian and American Medical Discourses

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There is currently considerable interest in medical discourse, both within and outside linguistics. But it is almost impossible to analyze this type of discourse because of patient-doctor confidentiality. However, there is another way to analyze it – with the help of TV serials. It is not real but stylized «communicative event» and «social actors» (patient and doctor), but still it is one of the ways of analyzing medical «communicative acts» [T.van Dijk].

The purpose of this study was to compare «source domains» [Lakoff] of conceptual metaphors in Russian (RMD) and American (AMD) medical discourses. Conceptual metaphors were singled out and analyzed according to their source domains in both AMD and RMD. The target domain is always medical discourse. The classification of source domains was established from classification of discourses suggested by Russian philologist V.I. Karasik. He singles out institutional and personal types of discourses. Examples of institutional types are medical, military, religious, art, sport discourses and so on [V.I. Karasik].

The paper demonstrates comparative analysis of RMD and AMD supplemented by contextual method as well as linguostylistic method that help to single out and identify conceptual metaphors.

The analysis was carried out on the material of «House MD», «Emergency Room», «Doctor Quinn – medicine woman» episode scripts (as an example of American medical discourse) and «Doctor Tyrsa», «Sklifosovsky» and «Zemsky Doctor» episode scripts (as an example of Russian medical discourse). All in all, the size of corpora is 60 episodes (at least 10 episodes from each show). Three American Shows are comparable in terms of genre with Russian ones. «Doctor Tyrsa» is an equivalent for «House MD», «Sklifosovsky» - for «Emergency Room», and «Zemsky Doctor» is the counterpart for «Doctor Quinn – medicine woman». Doctor Tyrsa and Doctor House both work only with serious cases. In the Moscow hospital «Sklifosovsky» and in Chicago hospital where the show «Emergency Room» takes place all medical cases are urgent, both hospitals are emergency rooms. The scene of both «Zemsky Doctor» and «Doctor Quinn – medicine woman» is laid in the countryside far away from cities.

The results of investigation of medical shows with cognitive view tell that in RMD there are no metaphors with source domain «law discourse», but many metaphors with source domains «military discourse», «sport discourse», «art discourse», «personal discourse». In AMD there are no metaphors with source domains «military discourse», but many metaphors with source domains «law discourse», «religious discourse», «management discourse», «personal discourse» and others.

There are many conceptual metaphors where a doctor is a crime investigator; a disease is a criminal, symptoms are like clues or evidence. There is no such resemblance in RMD. Nevertheless, Russian medical «social actors» (patients and doctors) use many conceptual metaphors from source domain «military discourse». They may compare a doctor who left his workplace earlier with a runaway, a patient who tried to save another person's life with a hero, a disease with an enemy. Consequently, the author comes to the conclusion that in AMD scriptwriters conceptualize medical discourse mostly with the help of metaphors from «law discourse» and in RMD – from «military discourse».

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Modeling Shifts of Attention During Spatial Language Comprehension

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Given the sentence "The apple (located object, LO) is above the table (reference object, RO).", how do we evaluate the acceptability of the spatial preposition *above* for describing the relation of the objects? Regier and Carlson (2001) proposed a cognitive model (the Attentional Vector Sum model, AVS) that computes a rating for how well a spatial preposition (e.g., *above)* describes the spatial relation between a RO and a LO. In line with Logan and Sadler (1996), the AVS model assumes a shift of attention from the RO to the LO. However, shifts of overt visual attention from the RO to the LO seem infrequent (Burigo & Knoeferle, 2015). By contrast, shifts in line with the mention of objects (from the LO to the RO) occurred frequently, suggesting they may be sufficient for understanding a spatial description. These findings are consistent with results on spatial relation processing suggesting a shift of covert attention from the LO to the RO (Roth & Franconeri, 2012). Accordingly, we propose the reversed AVS (rAVS) model in which attention shifts from the LO to the RO (instead of from the RO to the LO, see Kluth, Burigo, & Knoeferle, 2016). When assessed with the data from Regier and Carlson (2001) both models achieve a comparable fit. Given the indecisive outcome of the simulations, we next asked whether these two models are at all distinguishable. Due to the different mechanisms of the two models, we hypothesized that they each predict different ratings for specific RO-LO configurations. These predictions concern two effects on acceptability ratings: (1) the influence of the *relative* distance of an LO to an RO (defined as absolute distance divided by the dimensions of the RO) and (2) the influence of asymmetrical ROs. A subsequent analysis with the parameter space partitioning algorithm (Pitt, Kim, Navarro, & Myung, 2006) confirmed our hypothesized predictions for the rAVS model but not for the AVS model. Arguably then, deriving clear predictions from the mechanisms specified in the AVS model is difficult. We evaluated the predictions (1) and (2) by asking participants to rate critical object configurations. The results corroborate the effect of relative distance predicted by the rAVS model: LOs *relatively* close to an RO were rated higher than LOs *relatively* far from an RO (mean difference 0.078, 95% confidence intervals: 0.151, 0.007). However, the participants' rating of the asymmetrical ROs disconfirmed both models. LOs equidistant from the center-of-mass of the RO elicited unexpectedly distinct ratings (mean difference: 0.518, 95% confidence intervals: 0.619, 0.428). Thus, people's ratings were affected by the center-of-object of the RO (instead of the center-of-mass of the RO). This goes against previous observations (Regier, 1996; Regier and Carlson, 2001) claiming that people base their acceptability rating on the center-of-mass of an RO.

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A cross-linguistic comparison of concepts of emotions in English, German, and Dutch, with a focus on the mental concept and linguistic use of goosebumps (Gänsehaut, kippenvel)

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Goosebumps are in the first instance a physiological reaction, for example for heat regulation. Muscle contractions cause hair follicles to stand up - with fur or feathers this would result in heat retention, in humans the absence of bodily hair makes that function obsolete. This physical reaction is governed by the limbic system in the brain and a direct effect of adrenaline release, which is why it is also linked to the experience of emotions such as fear, or anger, but interestingly also to positive emotions.

Although such basic physiological reactions might appear to be universal (universal embodied cognition), in fact they are to a large extent governed by psychological triggers, and therefore mostly culturally determined and, accordingly, possibly also language-dependent. This study investigates whether there are differences in the experiential and linguistic domains when comparing a sample of closely related Germanic languages.

In a first step a questionnaire will shed light on the question which are the primary triggers for goosebumps for native speakers of English, German, and Dutch respectively, and which are the predominant emotions speakers associate with this physical reaction. Further there will be a focus on a possible difference between men and women. Do the sexes experience the phenomenon in different ways?

In a second step the use of the concept and its linguistic realizations (for example in metaphors) will be compared with the help of a selective and partly diachronic corpus analysis in order to find out whether language specific applications vary and also whether there have been changes in the language realizations over time, possibly due to interference and transfer from other languages (for example transfer from English to German).

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Evidence from the lab: Entrenchment effects in analogical change-in-progress

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When they first postulated the Conserving Effect, Bybee and Thompson (1997) explained it on the basis of entrenchment: high frequency items are more strongly entrenched in the mental lexicon than lower frequency items, which makes the latter more prone to replacement by productive formations. In line with the authors' and subsequent research on frequency effects in analogical change, the current study examines production through the use of corpora, however extending the scope to a change-in-progress. More importantly, the present paper presents evidence from experimental data for entrenchment effects on the processing of the change-in-progress.

The change under investigation concerns the formation of the imperative singular in German strong verbs with vowel gradation. In this paradigm, the established i-stem-formation (e.g. *gib*! 'give!' and *befiehl*! 'command!') is replaced by an analogical e-stem form (*geb(e)*! and *befehl(e)*!). A corpus of very recent language material (2001-2013) has been compiled and analysed by means of mixed-effects logistic regression models. The effect of verb token frequency in the dataset strongly suggests a gradual assimilation of the imperative of strong verbs with vowel gradation towards a regular pattern, starting in the least frequent items up to the conservatively behaving most frequent items. Thus, the Conserving Effect is shown to work in the very early stages of analogical levelling.

In order for the gradual replacement of the established i-stem variant to be successful, speakers need to be familiar with and accept the analogical e-stem variant, i.e. perceive it as an equally valid form. To this end, a 'self-paced reading with recall' experiment was conducted in which the two imperative stems are presented in verbs of different token frequency. Surprisal at the encounter of these forms, as the inverse of their entrenchment, is measured in terms of response latencies and recall accuracies: the more entrenched the presented forms are, the less surprisal they should cause, i.e. the lower their response times and the higher their recall accuracy. In contrast to previous studies, surprisal is measured "cotext-free", in line with Schmid's (2010) distinction of cotext-free from cotextual entrenchment (e.g. the entrenchment of *kith* as a lexeme vs. its entrenchment in the structure *kith and kin*). Data were obtained from two age groups of participants from different regions in Germany. Mixed-effects regression analyses of the data present converging evidence for i) the classification of the phenomenon under investigation as a change-in-progress, ii) the working of the Conserving Effect of high token frequency in this early stage of language change, and iii) the explanation of the Conserving Effect on the basis of entrenchment.

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Developmental trajectories of bilingual language acquisition:
The case of grammatical gender

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This study explored the trajectories of the bilingual disadvantage in grammatical gender acquisition, focusing on two processes suggested to account for this disadvantage: The first is the reduced exposure of bilingual children to each language, and the second ties the disadvantage to cross-language interference. In total, 130 kindergarten, first and second grade children were tested, half of which were Hebrew monolingual and half were fairly balanced Russian-Hebrew bilingual children. On each trial two cards were presented – one displaying an object and the other displaying a color. Participants were asked to generate a Hebrew phrase containing the name of the object in the plural form and the color adjective in the correct form of agreement. We recorded both gender inflection errors (incorrect noun inflection) and gender agreement errors (incorrect noun-adjective agreement). Forty-eight pictures were presented, half of which were masculine and half were feminine in Hebrew. Critically, for each grammatical gender half had a congruent gender in Russian and the other half had an incongruent Russian gender. Overall, bilinguals showed more errors than monolinguals, but this disadvantage dramatically reduced with age. Critically, the difference between congruent and incongruent gender trials was larger for bilinguals than for monolinguals. This finding supports the cross-language interference account, suggesting that when the Russian grammatical gender directly conflicts with that of the Hebrew word error rate increases. Interestingly, even on congruent trials bilinguals produced more errors than monolinguals, and this disadvantage disappeared by the second grade. This finding supports the role of exposure frequency and the influence of long term-language experience. Taken together, the data suggest that the bilingual disadvantage is the result of two different processes - reduced exposure to the target language, and cross-language interference. This interference appears to persist after the gender agreement system in the target language has been acquired.

European Perceptions of English as a Lingua Franca: A Multifactorial Analysis of Experimental Data

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This paper applies advanced multivariate statistics to the results of the first European large-scale study on the perceptions of English as a Lingua Franca. In the research in question, 12 lectal varieties (8 L2 accents and 4 native ones) were evaluated on an eight dimensional semantic differential scale – and in a second step spatially identified - by panels of over 100 listeners at 8 European universities. The 8 L2 linguistic varieties represent the main language groups in Europe: Spain and France (Romance), Belgium, the Netherlands, Germany and Switzerland (West Germanic, exhibiting national variation in both Dutch and German), Denmark (North Germanic) and Poland (Slavic). The 4 L1 varieties were General American, Southern Standard British English, Australian and Scottish. The 12 speech fragments were selected by native listeners on the basis of prototypicality judgments from a pool of 115 30-second recordings of the same text. The experiment was also run at the University of Canterbury, New Zealand, to allow for an overseas bird's eye perspective. While basic statistics had been performed on the data, this is the first time that regression analyses are applied to include the sociolinguistic variables retrieved as part of the experiment, to throw light on the extent to which interactions and mixed effects play a significant role in the results. For instance, while the Duncan test proved that the West Germanic language groups (Belgium, The Netherlands, Germany and Switzerland) proved to be the best identifiers (though not necessarily the best identified) when compared to the Romance or Slavic or North Germanic languages, the extent to which sociolinguistic variables correlate with values pertaining to correct identification or relative evaluation on psychological attributes had hitherto not been sufficiently explored.
Keywords: cognitive sociolinguistics, lectal perception, attitudes, English as a lingua franca

The Meaning of Time in Eastern Slavic Languages and Cultures: diachronic polysemy and conceptual structure

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In this study, offering a linguistic investigation into the notion of time in Eastern Slavic languages and cultures, I depart from Vyvyan Evans' approach (Evans 2005) which recognizes a complex structure of time, and employ the methodology of his Lexical Concepts and Cognitive Models approach to tackle the structure of time in two Slavic languages: Ukrainian and Russian. My focus, thus, is on such two lexical items for time as Ukr. *час* and Rus. *время*.

An important assumption that I am making concerning Evans' understanding of lexical items as constituting form-meaning pairings, is that the form used for expressing the meaning is motivated rather than arbitrary. Here, 'motivated' means that linguistic forms are not invented arbitrary but are, rather, already meaningful when they are introduced for some specific function. This idea is implied in the concept of the Inner Form of the word defined as its closest etymological meaning, which is a fragment of meaning immediately represented in the outer form (sounds making up the lexical item) (Potebnya 1993 [1862]: 100). The inner form points out a feature of an object, which underlies its name, and arises as the factor that determines the specificity of conceptual structures related to words in different languages.

With regard to their inner forms, both Ukr. *час* and Rus. *время* exhibit interlingual diachronic polysemy, i.e. their genetic equivalents found in a number of kin languages have different contiguous meanings which build up the network of polysemy and collectively represent the content of time in each language. This network of polysemy can be structured as a radial category where the central sense is identified according to the principles proposed by Evans in (Evans 2005: 44), and interpreted as an array of lexical concepts integrated into a specific cognitive model for time.

The crux of my argument is that the proposed analysis of Ukrainian and Russian temporal terms uncovers two different cognitive models relating to such opposing cultural visions of time as the linear and cyclic conceptions. Accordingly, I also look into metaphysical conceptions of time formulated in Ukrainian and Russian cultural traditions to trace the correlations between the conceptual structures of Ukr. *час* and Rus. *время*, and the notions of time developed in respective Eastern Slavic Cultures.

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Morphological patterns in entity-related compounds. A Russian language study

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Russian Internet slang is a source of insights into new cognitive patterns which evolve in the language. One of these is extensive usage of entity-related compounds. In our previous study (Kulikov, 2015) we showed that entity-related opinion compounds of pre-determined polarity can be created by means of morpheme synthesis. However, there are a few cases that are not covered by the said technique. In this study we will focus on two of such derivational patterns, namely lexical blends with either one part or both parts of the word being modified.

In the first case one lexical part loses its initial meaning (the referent), instead the connotation is used. Here we find words like 'Putler' (Putin + Hitler) and 'ukroIGIL' (Ukrainian + ISIL). In the words of this type the second part of the lexical blend loses its direct referent while the negative connotation is preserved. A similar pattern is used for pseudo-blends like in 'nashist' ('member of Nashi movement' + fascist) and 'rashist' (Russian + fascist) where the suffix 'ist' following the sound [ʃ] creates the association with fascist ideology as shown by a psycholinguistic study of the people who are unaware of the words (Krendeleva, 2015).

In the second case the word can be modified graphically e.g. 'PoSSия' (Russia + SS) where there is a code shift or can be substituted with a similar sounding part of the word, e.g. 'Erdogad' (Erdogan + gad 'skunk'), 'Parashenko' (Poroshenko + parasha 'toilet').

Our study attempts to show that certain lexical concepts can evolve into morphological concepts while retaining the original connotation of the lexical concept. Thus, that makes it possible to automatically determine the polarity of the blend for a slightly modified (quasi)morpheme-based algorithm.

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The Constructicon and its development in the context of FrameNet Brasil

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This work aims to present the progress of the research developed in FrameNet Brasil for building the Brazilian Portuguese (BP) Constructicon, as well as regarding the multilingual alignment of this resource. The next step is to investigate the semantic relations between frames, between constructions and between frames and constructions, both linguistically and computationally. The purpose is to discuss and, if necessary, review the relations already described in FrameNet, proposing more refined descriptions, and to establish relations between constructions – which have not yet been defined. The investigations resulted in the stipulation of four semantic relations, namely the Full Inheritance relation, which will be used to model the relations between constructions, and the relations of Evocation, Evocation on Background and Filling Constraints, to model relations between frames and construction. For multilingual application resource, initially it carried out a contrastive analysis between English constructions and BP constructions. This task was carried out by taking the constructions described in Berkeley Constructicon database, taking English as a source language, and categorizing them as having full, partial or no equivalence, based on five criteria previously defined which take into account semantic and formal aspects. This work shows to be relevant, therefore, to collaborate with the theoretical discussions about the multilinguality of a syntactic resource and introduce the proposal of criteria focused on the alignment of resources. Thus, it intends to contribute in a practical way to increase the constructional analysis and to improve the Constructicon.

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Linking gesture-speech ensembles and the attention system of language in force-dynamically specified grammatical categories: A study in multimodal cognitive semantics

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The integration of grammatical constructions and co-speech gestures in terms of speaker-created gesture-speech ensembles (cf. Kendon 2004) is still an under-researched field of linguistics (see Fricke 2015). Those studies supporting a multimodal conception of grammar have had their starting points either in particular gestures, families of gestures, or in specific linguistic forms or form classes (e.g., deictic expressions or nominal groups). Less well represented are top-down approaches that would seek for correlations of larger conceptually defined grammatical categories and potential gestural substitutes, complements, or reinforcements. Given this research situation, my talk, which explicitly argues in favor of a multimodal extension of Talmy's cognitive semantics framework, is to present a small-scale case study on potential gestural affiliations of instantiations of the conceptual category of Force Dynamics, canonically taken to specify the non-epistemic meanings of the English Greater Modal System and of negation (cf. M. and G. Lampert 2013). Based on a corpus of selected U.S. presidential speeches, the paper suggests that the speech-gesture ensembles created on-line depend on the concrete strengths of attention associated with force-dynamically specified linguistic items in discourse—that is, with different degrees of attentional activation, attenuation, sustainment, and inhibition (see Talmy, forthcoming). And, in contrast to the results of earlier multimodal studies on negation and epistemics (see Roseano et al. 2015), my own case study shows that, in the register under scrutiny, force-dynamically specified items like non-epistemic modals (*must, should, may*) and their lexical equivalents *(necessary, obligatory, perhaps)* do not yield co-speech gestures of any kind. My explanation of this finding rests on the observation that these items are characterized by both a general and a discoursal attenuation of attention, which concomitantly leads to a suppression of potential force-dynamically specified modal-pragmatic gestures, like those represented in the open-hand or palm-down paradigms.

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Attention to Quotations as a Multimodal Phenomenon

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Investigations into the vocal dimension of quotations (Klewitz & Couper-Kuhlen 1999; Kasimir 2008) have commonly presupposed their quote-indexing and discourse-functional potential; likewise, gesture research has postulated and occasionally addressed their general potency in structuring discourse. Both Lorenz (2007) and Maury-Rouan (2011) find quotations, prosody, and gestures co-aligning in personal narratives and interview data about a life story to perceptually differentiate quoted and non-quoted discourse or changes in vocal, facial, gestural, and postural parameters co-occurring with shifts in footing.

Against this background, I will, from a cognitive semantics perspective, propose to frame quoting as an attention-based and modality-sensitive phenomenon, illustrating how the verbal, vocal, and kinetic dimensions of language variably and multiply interact in spoken settings (cf. Lampert 2013, 2014, 2015). Rooted in Talmy's (forthcoming) causal dynamics, introducers to quotations are re-analyzed as triggers responsive to modality-specific distinctions, to produce attentional effects on the hearer: Multimodal cues, including verbal, prosodic, manual, facial, and bodily gestures as well as gaze, (may) collaborate to differentially redirect some hearer attention to a speech-internal concomitant associated with quotation's referential content. Ranging along Talmy's proposed attentional gradient from activation over attenuation to inhibition, the multimodal devices subserve discourse-functional purposes, foregrounding, backgrounding, or suppressing the quotation's status as 'another voice': Emerging from the non-discrete, non-digital dynamism of voice and kinetics, such variability appears cognitively well motivated.

Recognizing that both prosody and co-speech gestures, on account of their unconstrainedness by convention and their gradient nature, as well as the structural variability of quotations and their discourse-functional demands call for a linguistics of particularity, two samples (from more than 330 video-taped instances of quoting by experienced public US speakers) will be presented, illustrating the variedness in representing another voice in public talk: Noam Chomsky and Bill Clinton.

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A Construction Grammar Approach to Signed Language Analysis

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"Building-block" theories of grammar propose that universal, abstract grammatical rules combine universal, abstract grammatical categories to generate constructions that are underlyingly identical, despite their superficial differences. By contrast, in Radical Construction Grammar, constructions are the essential unit of morphosyntactic representation, and are considered language-specific, with grammatical categories emerging from the scaffolding constructions provide (Croft, 2001). The study of sign language structure to date has been dominated by "building-block" approaches, leaving open the possibility that several language-specific generalizations have been overlooked, in favor of universal rules. Here, we present a construction-based morphological analysis, demonstrating that several constructions can be identified among what have typically been considered "monomorphemic" signs in American Sign Language.

We discuss families of constructions (Bybee, 2010) which have fixed handshapes but have schematic movement and location slots, and importantly participate in recurring predicational patterns. One example of such a family is the 'movable object' family of constructions (Lepic, 2015), which includes signs like CHALLENGE and FOLLOW (Figure 1a,b). In these signs, the movement of the hands profiles the movement of two objects relative to one another. Similarly, the 'emergence' family of constructions (Occhino-Kehoe, in prep) encompasses signs like INFORM and GROW (Figure 1c,d), which have a shared sign-internal handshape change. In these signs, the opening movement of the hand(s) profiles the emergence of some previously contained entity from a container.

We demonstrate that while the individual formational parameters of a given sign do not predict its meaning in any traditional sense, the relationships between whole signs and their meanings provide the scaffolding for more productive morphosyntax. Thus, many signs are constructions with identifiable internal structure, and whole signs also participate in larger families of constructions. Unlike current approaches to morphosyntactic analysis of signs, the construction-based approach therefore leads to a uniform analysis of "monomorphemic" and "multimorphemic" signs alike.

Figure 1. Four lexical signs in American Sign Language (images from www.handspeak.com)

a. CHALLENGE   b. FOLLOW   c. INFORM   d. GROW

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A behavioural profile analysis of the Mandarin Chinese verb reduplicative construction

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Your abstract goes here. Please take the reviewers comments into account as you prepare Studies on Mandarin Chinese verb reduplication generally agree on two main functions: attenuative of extent, i.e., 'doing something a little or for a short time', and attenuative of tone, i.e., a 'polite request' (Li & Thompson, 1981, Xiao & McEnery, 2004). They disagree on whether verb reduplication also expresses other functions such as tentativeness, casualness, mildness, iterativity. Li (2015) argues for four main meanings of Mandarin Chinese verb reduplication: attenuative of extent, attenuative of tone, iterative and continuative. This study tests this classification by analysing the behavioural profiles (Atkins, 1987, Gries, 2006) of Mandarin Chinese verb reduplicative examples.

I investigate the 549 examples of Mandarin Chinese verb reduplication in the Lancaster Corpus of Mandarin Chinese (McEnery & Xiao, 2004). Specifically, I examine 15 formal, semantic and contextual variables that are mentioned in Mandarin Chinese verb reduplication literature (cf. Li & Thompson, 1981, Dai, 1997, Xiao & McEnery, 2004, Chen, 2005, Chen, 2008). These include but are not limited to extendedness of the event as indicated by the VP, person of the subject, presence/absence of the object, object specificity, presence/absence of modal verbs, clause type, speech act type, genre, relative social status of speaker and hearer. Following Gries (2006), I apply the hierarchical cluster analysis to the dataset which sorts the examples based on the variables. I found two larger clusters which roughly correspond to the meaning of attenuative of extent and attenuative of tone.

I then run a correlation test between the function labels and each of the behavioural profile variables. It is found that clause type and person of the subject are the most important factors in distinguishing the attenuative of extent meaning from attenuative of tone. Within the function of attenuative of extent, the presence of modal verbs distinguishes examples expressing mildness from the rest. The result of the behavioural analysis is then compared with the result of a manual analysis in Li (2015).

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A reaction time study testing interactions between gender and the psychological reality of the vertical image schema for hierarchy

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According to the embodied metaphor hypothesis, metaphor is thought to derive unconsciously from experiential gestalts relating to our body's movements, its orientation in space, and its interactions with objects (Johnson, 1987). One embodied metaphor suggests that POWER IS UP and LACK OF POWER IS DOWN. Reaction time studies have shown that people judge a group's social power to be greater when the group is presented at the top of a computer screen than when it is presented in the lower part of the screen (Schubert, 2005).

In our study, we factored gender into Schubert's experiment by including matched pairs of gendered prompts, such as waiter/waitress, maid/manservant, king/queen, and so on. Our hypothesis was that the relationship between the prompt's power and its position in the hierarchy would be even stronger when powerful, male prompts appear at the top of the screen and when less powerful, female prompts appear at the bottom of the screen. Such a finding would provide empirical evidence for a subconscious gender bias in our participants. We were also interested to see whether such a bias is equally strong for male, female and transgender participants. 60 participants (25 male, 25 female and 10 transgender) participated in a reaction time study to measure the relationship between gender, vertical positioning and perceptions of hierarchy. In this paper, we report the findings from our study and discuss their implications.

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A cognitive approach to teaching Spanish aspect: preliminary conclusions from research

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The aspectual contrast preterit/imperfect is one the most difficult features of learning Spanish/L2 (Comajoan Colomé, 2014). While introduced in the early stages of learning, difficulties to discriminate between both tenses persist even in advanced stages. Approaches to teaching this item, with some exceptions (Palacio Alegre, 2009, 2016) have changed little over the years: they use lists of communicative functions often associated with temporal markers and discursive genres that trigger imperfect or preterit in a wide variety of situations. The learner is left to memorize "puzzle combinations" never really knowing why either tense is used. Instead of this traditional teaching approach, this paper advocates a cognitive and pedagogical alternative (Achard, 2008; De Knop & De Rycker, 2008, Llopis-García *et al*). Here, language is viewed as a symbolic representation of the speaker's world and its grammar as closely related to her reality, reflecting it and helping her build meaning through form. A cognitive view of grammar, then, portrays language as an outcome of the speaker's own selection, and not as part of a taxonomic set of rules. For the case of the aspectual contrast, the starting point of the cognitive instruction included an embodied prototype within a mental space and perspective, relative to the scope of the action in each tense. The traditional group received an instruction based on temporal markers and a list of uses. Both treatments were based on the current textbooks of the language program of the participating students.

To contribute to the literature on the potential benefits of a cognitive and pedagogical approach to grammar teaching, we conducted a quasi-experimental classroom-based study measuring the relative effectiveness of each type of approach to teaching Spanish/L2 aspect. A pool of 58 second-semester Anglophone university students enrolled in an Elementary II Spanish course was split in three groups: (a) a group receiving cognitive/pedagogical instruction as per their grammar textbook (n=17), (b) a group receiving traditional/prescriptive instruction as per their regular textbook (n=20), and (c) a baseline group (n=21). Following a pretest/posttest design and after a three-session instructional treatment (75 min/session), overall results support our hypotheses, i.e., significant benefits for the cognitive group. Related didactic implications are included and further research will be discussed.

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Grounding hand-related grammatical categories in peripersonal space: evidence from reaction times, pupil dilation and functional MRI

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Embodied cognitive theories predict that linguistic conceptual representations are grounded and continually represented in real world, sensorimotor experiences. However, there is an on-going debate on whether this also holds for abstract concepts (Mahon and Caramazza, 2008). Grammar is the archetype of abstract knowledge, and therefore constitutes a test case against embodied theories of language representation. Former studies have largely focussed on lexical-level embodied representations. In the present study we take the *grounding-by-modality* idea a step further by using reaction time data from the linguistic processing of numeral classifiers in Chinese. We take advantage of an independent body of research, which shows that attention in hand space is biased. Specifically, objects near the hand consistently yield shorter reaction times as a function of readiness for action on graspable objects within reaching space (Reed et al., 2010; Garza et al, 2013), and the same biased attention inhibits attentional disengagement (Abrams et al., 2008). We predicted that this attention bias would equally apply to the graspable object classifier 把bǎ, but not to the big object classifier座 zuò. Chinese speakers (N=21) judged grammatical congruency of classifier-noun combinations in two conditions: graspable object classifier and big object classifier. We found that RTs for the graspable object classifier were significantly faster in congruent combinations, and significantly slower in incongruent combinations, than the big object classifier. There was no main effect on grammatical violations, but rather an interaction effect of classifier type (Lobben and D'Ascenzo, 2015). Additional evidence that support these initial findings will also be presented: a pupil dilation study and an fMRI study, both using hand related numeral classifiers as stimuli. Thus, we demonstrate here grammatical category-specific effects pertaining to the **semantic content** and by extension the visual and tactile **modality of acquisition** underlying the acquisition of these categories. We conclude that abstract grammatical categories are subjected to the same mechanisms as general cognitive and neurophysiological processes and may therefore be grounded.

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The semantic extension of *FU* in Mandarin Chinese: subculture matters

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This paper aims to discuss on the factors that induce semantic change and on the interaction between conceptualization and grammar, in an attempt to connect cognitive linguistics with social phenomena. The findings are accord with Iwasaki's (2015) multiple-grammar model. The grammatical behaviour of a lexeme is considered to be fixed in two-level lexical semantic theories. However, a loanword from a foreign culture can bring fresh meanings and create innovations into the existing linguistic grammatical patterns, resulting in a semantic change such as in the case of *fǔ* (腐) in Chinese. In the past, *fǔ*, an intransitive verb and adjective, originally means 'rot, or something rotten or corny'. Nowadays a new expression *fǔnǚ* 'rotten women' (in Japanese *Fujoshi*, 'female fans of boys' love' or *yaoi*) arises in the subculture. Since this term came into Chinese community, *fǔ* has expanded its semantic field and its grammatical patterns. In other words, the conceptualization of *fǔ* influences its grammatical behaviours, creating a transitive-like usage (e.g., *fǔ le jǐ ge péngyǒu* 'putrefy some friends'), and a passive usage (e.g., *bèi fǔ le* 'to be putrefied'). Also, some primary metaphors are found to be at work underlying the novel use of *fǔ*, such as BAD IS STINKY, GOOD IS UP, BAD IS DOWN, and CONTROL IS UP. Even a semantic prosody of HAPPINESS can be recognized. All of these metaphors contribute to its semantic change. In the end of the paper, some factors, for instance, genre effect, register effect, and the contagious power of subculture, will be discussed since they play a role in the progress of semantic change and expansion. To sum up, this paper is a corpus-based study. The materials related to *fǔnǚ* were collected from two sources for comparison: news reports (i.e., *United Daily News*) and online posts from a forum dedicated to *fǔnǚ*. The investigated period covers from 2005 to 2015, and the corpus consists of 64013 Chinese characters. Compared to the formal register of newspaper, the usages of *fǔ* in the online forum show a great variety, which gives rise to the implications of this paper.

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Conceptual and Discourse Structures in Fantasies conveyed on the Internet

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Our research is an exercise in applying cognitive linguistics principles to an area of social significance: in particular, we seek to identify how fantasies structurally and conceptually differ from plans, to further the evidentiary power of legal argument in cases of sexual assaults against children. The methodologies we employ included narrative analysis, discourse structure and conceptual frames.

The material our work has been dealing with includes emails that outline illegal behaviours such as the sexual abuse of children and social violence. Although current laws have made it illegal to have such threatening material in your possession, it remains a necessity to be able to clearly identify whether such material is just a fantasy or a possible and projected threat. A huge problem for the prosecution in such cases has been to clearly evidence the latter, which without a linguistic database of fantasies has not been possible - i.e., linguists have not been able to identify an expected structure of fantasies, let alone document how it might contrast with other text types, which is essential to justify a linguist's argument in court.

To this end we have collected a modest dataset of fantasies made on the internet. This work has provided clear evidence that internationally, people are strongly disinclined to share their fantasies with others and when they do, they provide very little narrative detail. In this talk we will expand on these early findings, and present the discourse and conceptual structures that have been found in the longer fantasy emails, so that we may be able to offer linguists some justification for professional arguments made in court.

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How does the brain handle sentence-internal coordination?

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In leading theories of sentence-internal coordination, the coordination construction is classified as either symmetric (Lang 1984, 1991) or asymmetric (Johannessen 1998). In both cases, the point of departure is *the conjuncts themselves*: these supposedly have to adhere to certain (specified) similarity conditions. However, none of the current theories can explain what is going on at the outer fringes of the field, e.g. in sentences like the following:

(1)   But he found nothing more, and at last, dirty and discouraged, he went *down to the Spencer house* and *to follow an astounded Nora up the stairs* (Rinehart 1995: 423).

(2)   <u>That fact</u> *Calgary had already found out*, and *was the reason for his being there* (Christie 2003: 294).

In (1), a directional and a final adverbial are coordinated, and in (2), one syntactic phrase appears with two different functions (direct object and subject, respectively) in relation to the two (following) coordinated chunks.

Building on cognitive insights into mental simulation (Barsalou 1999, Strømnes 2006), we will present a detailed solution to the problem of coordination which can explain both the typical examples and the asymmetric cases (Lunde 2015). Our account challenges the view that primitive notions such as syntactic functions and categories are needed to explain coordination. Crucial for the grammaticality of sentence-internal coordination is *the grammaticality of each separate conjunct in relation to the structure in which it is embedded*. That is, acceptability is (to a great extent) determined by conjunct-external factors. This is consistent with Croft's (2001: 45f.) position that constructions, rather than categories and relations, are the basic units of syntactic representation.

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Statistical patterns in male and female names in a non-gendered language cue native speaker judgements of the semantic gender of pseudonames

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Native speakers of languages share implicit knowledge about wordlikeness of previously unknown words, allowing them to judge whether those belong to their language or not (Bailey and Hahn, 2001). This phenomenon can be partially explained by statistical patterns, e.g., bigram transitional probabilities (Frisch et al., 2000). Our study investigates if patterns extracted from male and female first names of the grammatically non-gendered Hungarian language (implicitly) cue native speakers in judging the semantic gender of invented pseudonames.

Analyzing the 100 most frequent male and female Hungarian names revealed gender specific differences in the transitional probabilities of letters. Divergent values allowed to define a proxy score predicting the perceived gender of a transition. Using this score, we constructed Female, Male, and Neutral pseudonym strings. In a crowd-sourced experiment utilizing a 2AFC design, 25 native Hungarians judged the gender of 60 target strings (e.g., Olill (F), Jáber (M), Názedi (N)). Fitting a GLMM on the results, we determined that the gender of the created strings had a strongly significant main effect on the judgment of participants (GENDER(χ^2(2) = 48.645, p < .001). Post-hoc analysis revealed strongly significant deviance from the Neutral baseline condition in the case of male (z = −5.155, p < .001) and significant deviance in the case of female names (z = 2.443, p = .0145). To assess the predictive strength of the above proxy score, we calculated the gender difference score of each target item (i.e., male judgements−female judgements); Spearman's rank correlation showed a good connexion between the values (ρ = .710, p < .001).

Our results suggest that speakers of Hungarian carry non-arbitrary, implicit knowledge about the semantic gender of artificial strings following the patterns associated with male and female names, while they perform at chance level when associating gender with 'genderless', neutral strings.

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Constructional complexity and information density in German spatial language development

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Children acquire important building blocks of the spatial language system early on (e.g., Bowerman & Choi 2001), but how do they integrate these components? Going beyond prior analyses, we investigate the interactions of different spatial elements in German preschoolers' descriptions of localization and motion events: Which kind of information do children explicitly encode and by which linguistic means?

Our analysis includes 3522 utterances from 48 German *Frog stories* elicited from monolingual child and adult speakers (3-, 5-, 9-, and 20-year-olds; Bamberg 1994). At the level of the individual building blocks (figure, path/ground, verb), younger children prefer simple elements, such as deictic paths/particles and modal verbs/lexical verbs without manner specification (e.g., *er will raus* 'he wants out'); with age, conceptual and structural complexity increase to include significantly more prepositional phrases/complex paths and manner verbs. At the global constructional level, younger children prefer light combinations, resulting, for instance, in negative partial correlations between figure and verb complexity at age three. This means, for instance, that (semantically complex) manner verbs are preferably combined with (simple) pronouns (as figure) rather than with full noun phrases. Young children thus often produce complex spatial language stepwise, across various utterances in a row (e.g., *Da ein Hirsch. Und der jagt den Hund.* 'There, a deer. It chases the dog.'). With age, information density and precision of spatial language constructions increase. Our findings show that mastery of individual spatial language building blocks at a young age does not yet guarantee fully competent information packaging/density.

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The role of embodiment in the semantic analysis of phrasal verbs: a corpus-based study

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A number of studies in Cognitive Linguistics (e.g. Johnson, 1987; Tyler and Evans, 2003) have highlighted the significance of embodied experience and cognitive processes to the analysis of English prepositions. No study, however, has investigated whether there is a correlation between frequency and the embodied meanings of spatial particles or in other words, whether high frequency particles are associated with a larger set of embodied experiences. In this study, the frequencies of 20 spatial particles in the Corpus of Contemporary American English (COCA) were retrieved and compared in terms of the TR-LM spatial configuration and embodied meanings. Tyler and Evans' Principled Polysemy Model was used for analyzing the particles under investigation. The comparison between high and low frequency particles in the corpus showed a tight correlation between frequency of use and the embodied meanings of the particles. According to the analysis, the reason for why certain particles including 'up', 'out' and 'off' appear so frequently in phrasal verbs is mainly due to a larger set of embodied experiences and a more complex semantic network associated with these particles. The TR-LM spatial configuration of proximity, orientation and boundedness were found to be particularly important in determining the frequency of the various particles. For instance, particles denoting proximal relation between the TR and LM (e.g. off, over, under) were found to be significantly more frequent than their counterpart in the contrast set (e.g. away, above, below). Additionally, particles denoting orientation such as 'to' and 'after' where found to be more frequent than their corresponding particle in the contrast set 'for' and 'before' as a result of the difference in the sequential meaning denoted by the particles. Finally, implausible constructions such as 'hold under' and 'drop up' were found to be explainable by examining the embodied meanings of the verb and the particle.

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Semantics of additive connectives guides referential processing: An eye-tracking study of connective processing in Dutch and Russian

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On usage-based accounts, each usage event leaves a trace in the processing system (Bybee, 2007; Goldberg, 2006; Langacker, 1987). Therefore, frequently used items should be more accessible in language production and more easily evoked as the most probable analyses in language comprehension (Ellis, 2002). An important question, however, is this: Can frequency distributions be overridden by other factors in discourse processing?

In order to answer this question, we conducted an eye-tracking experiment comparing the processing of the connectives 'and' and 'but' in Dutch and Russian. In terms of frequency distributions, the Russian additive connectives are very similar to their Dutch counterparts ('and' more often introduces reference maintenance and 'but' more often introduces reference shift). However, semantically, the two languages are different, since only the Russian connectives are specified for maintenance/shift in their semantics. The Russian connective *i* 'and' has a strong preference for maintenance continuations and can only be used for reference shift under specific constraints (such as obligatory causal readings). In contrast, the connective *a* 'but/and' is a prototypical marker of reference shift and can only be used for maintenance in contrastive contexts.

The experiment was conducted with Russian- and Dutch-speaking monolingual adults and with Dutch-Russian bilingual children (age 5, dominant in Dutch). The results indicate that the Russian-speaking adults were more likely to shift their gaze to an alternative picture after the connective *a* 'but/and' than after *i* 'and'. The same pattern was found for Dutch-Russian bilingual children, despite the fact that their production of Russian connectives is heavily influenced by Dutch (Tribushinina et al., 2015). In contrast, the Dutch connectives were not used for predicting referential continuation. It is concluded that irrespective of frequency distributions, connectives are only used as processing instructions for referential development if reference maintenance or shift is specified in their semantics.

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Metonymic syntactic transfers

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The wide range of constructions where Spanish *dar* (and English *give)* can be used has led researchers (Alonso Ramos 2004, Dancygier y Sweetser 2014, 130) conclude that GIVE has been reduced to a light verb with almost no meaning. *Dar* provides no more than the skeletal ditransitive syntactic structure to code events whose content is basically provided by the noun or the prepositional phrase it combines with (*dar una vuelta* 'take a stroll' *dar de comer* 'feed' *dar de beber* 'provide something to drink'). While there are uses where *dar* is in fact a light verb there is a wide range of construction where it is not. This paper attempts to account for four *dar* constructions that could not be accounted for without the basic semantic configuration of *dar*:

1.a.   Pitbull *le dio con todo a un fanático*. El rapero lo pateó y golpeó en la tarima
          'Pitbull beat up one of his fans. The rap Singer kicked and hit him in on stage' (Lit: gave it all)
 b.   la embarcación *dio con unas rocas*, (Lit: gave against)
          'The ship ran into (hit) some rocks'
 c.   …este periodista no *dio con ellos*, ellos *dieron conmigo*. (Lit: gave with me)
          'This journalist didn't find them, they found me'
 d.   Era vegetariano, pero un día *dio inexplicablemente en comer carne* (Lit: gave toe at meat)
          'He was vegeterian, but one day inexplicably he started eating meat'

It is proposed that the schematic representation of *dar* allows for a set of metonymic relations among constructions where the notion of transference-trajectory must always be preserved. While (1a) is construed on the basis of physical transfer--and the actual hit is inferred from the "hitting event" frame (Palancar 1999)--(1b) projects an extension of the hitting event where the whole body makes contact with some location without control. (1c) may be seen as the abstract correlate of (1b) where the contact established with the object is not controlled by the subject. Finally (1d) is a further metonymic extension of both (1b) and (1c) where the contact is now established unwillingly not with locations but with new actions. Based on Cognitive Grammar (Langacker 1987,1990, Newman 1966) the analysis proposes that rather that deleting or demoting arguments, as in formal approaches, the basic meaning of *dar* remains in the base to allow for different facets of the transfer construction (Goldberg 1995). While the direct object is inferred in (1a), all other cases imply subject control decrease applied in different realms leading to distinct interpretations.

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Eye tracking data on the contribution of signs in transmitting information during sign-supported speech

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Sign-supported speech (SSS) is a method of communication that involves the simultaneous production of signs and speech. It is often used in the education of deaf students to foster language comprehension. In particular, individuals with early cochlear implants are likely to obtain major benefits from the use of SSS (Knoors & Marschark, 2012). The current study intends to determine the role of signs in transmitting information to deaf people by exploring their gaze behaviour when perceiving SSS. Previous eye tracking studies indicated that deaf individuals focused their visual attention around the mouth, when perceiving sign language as well as SSS, suggesting that signs were perceived by peripheral vision (Lee De Filippo & Lansing, 2006). Forty-five Spanish adolescents, with severe or profound hearing loss, participated in this study. They wore either cochlear implants or hearing aids which had improved to a different extent their residual hearing. Fourteen participants were native Spanish sign language (LSE) users. Standardized measures were used to evaluate non-verbal IQ, working memory, receptive vocabulary and lip-reading skills. Participants were also tested to ascertain they had a basic comprehension of Spanish oral language and LSE. The task consisted of watching a set of videos where an interpreter communicated subject-verb-object sentences using SSS. Sign and speech referring to the sentence's object were either consistent or inconsistent with one another. Participants selected from four options displayed on a screen the image related to each sentence. In the consistent condition, one image referred to the object as communicated jointly by speech and sign, two images were semantically related to the verb and one image was semantically unrelated. In the inconsistent condition, two different images related either to the object as communicated by speech or by sign and the other two images were respectively semantically related or unrelated to the verb. Eye movements were tracked by using EyeLink 1000, SR Research. As a result of the conflict between foveal and peripheral vision produced in the inconsistent condition, we expected a major number of gaze deviations towards the signs when perceiving SSS, and larger reaction times (RTs) in the sentence-picture matching task. Results indicated that the image reflecting the information provided by speech was more likely to be selected, although native LSE users chose the image related to the sign to a larger extent than non-native LSE users. The relevance of lip-reading emerged especially among individuals with cochlear implants, who mostly selected the image reflecting speech, although their longer RTs in the inconsistent condition task suggest that, when missing information through lip-reading, they refer to the additional resource of signs offered by SSS. Looking at these results, it seems appropriate to suggest promoting the use of SSS as a complementary instrument to the lip-reading training in the intervention with deaf students.

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A Usage-based Approach to Second Language Acquisition of Japanese Particles

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Japanese locative particles, particularly *ni* and *de*, are challenging for Japanese-as-a-foreign-language (JFL) learners, since languages carve up the space in different ways and speakers construe the *ground* and the *figure* differently depending on the context (e.g., Talmy 1975, 2000; Masuda 2007). Moreover, those Japanese locative particles are even more challenging due to their polysemous nature with multiple related meanings.

In a usage-based approach (which falls under the general umbrella of Cognitive Linguistics), language learning is shaped through actual language use, rather than abstract rules, which can be described as type-token frequencies or a "Zipfian distribution" (Goldberge et al. 2014; Ellis 1996; Ellis and Collins 2009). Recently, a growing amount of research has demonstrated the relevance of a Zipfian distribution to the field of Second Language (L2) acquisition (Cadierno and Eskildsen 2015; Ellis and Ferreira-Junior 2009a, 2009b; Eskildsen 2009, 2012, 2014, 2015). The present study aims to contribute to this line of research by investigating JFL learners' patterns of locative particle use compared to native speakers' patterns by calculating token-type frequencies of locative particles in relation to predicate construction.

The L2 data consists of 21 one-on-one semi-informal conversations, totaling 6.7 hours between a Japanese TA and JFL English-speaking students of 3 different proficiency levels at a U.S. university (Novice, Intermediate, Advanced equivalent proficiency levels of American Council on the Teaching of Foreign Language: ACTFL, Oral Proficiency Interview: OPI guideline). The native speaker's data is *Japan Corpus* (Aoki et al., m.s.). The results show that the type-token ratios for goal *ni* occurring with motion verbs were very low and stable across the three levels of learners, but the token frequencies increased. Use of stative *ni* progresses from low item-based learning to high schematicity as their proficiency went up, although some learners followed a longer path towards recovery from overgeneralization. Tokens for locative *de* occurring with action verbs were relatively few with low type-token rations slightly decreased. Overall, the type-token ratios of JFL learners' difficult-to-learn locative particles *ni* and *de* were low and stable across three levels. The type-token distribution in both the native speakers' and the learners' particle usage is Zipfian distributed, suggesting that the L2 learners acquired the most frequent and prototypical exemplars of locative particle functions along with verbs. Thus, results lend further support to the applicability of item-based processing to L2 acquisition studies.

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The paths and directions of motion in Japanese multimodal metaphor of time

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Conceptual Metaphor Theory (Lakoff and Johnson 1980, 1999) maintains that metaphor is not only instantiated by linguistic expressions but it resides in the level of conceptual structures. This has been confirmed especially by the studies of multimodal representations of metaphors (Forceville 1994; Forceville and Urios-Aparisi 2009). The present study focuses on metaphors of TIME (Evans 2004, 2013, Moore 2014, among others), and see their multimodality. As previous studies suggest, pictorial representations and verbal representations of TIME IS MOTION seem to share the same properties (Coëgnarts and Kravanja 2012). Our experiment further shows that pictorial metaphors of time allow wider ranges of paths and directions of motion.

In a drawing task, 130 Japanese participants completed a picture of "passing time" by adding something around a pre-printed image of a person. They were allowed to draw anything except a picture of a clock or a watch. As a result, the drawings included many cases of visual representations of TIME IS MOTION, including both Moving Ego and Moving Time. We analysed the paths and directions of motion in the drawings, and found some peculiar tendencies. First, the paths of motion in the drawings were not limited to one-dimensional lines: many included more elaborate lines. Second, directions of motion could be different from the ones found in verbal metaphor of TIME IS MOTION. Many participants drew both forward and backward motions of ego or time mixed in one picture, which is impossible in verbal cases. Moreover, some participants put earlier time (or PAST) on the right side of the given space, drawing a right-to-left timeline, which may be saliently different from English and other European conception of horizontal timelines. Thus, visual representation of TIME IS MOTION seems to have more variations of movements than verbal instantiations, some of which may be culture-specific.

In sum, our results (i) confirm the previous finding that the TIME IS MOTION metaphor can be realized both verbally and visually, and (ii) suggest that visual instantiations allow broader images of motion, especially in paths and directions.

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Bilingual Advantage in Executive Functioning: P-Curve Meta-Analysis

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Recent reviews concerned with the Bilingual Advantage (BA) in Executive Functioning report evidence suggesting that research in this area often suffers from methodical flaws and biases favouring results that are both significant and in agreement with previous findings (Paap, Johnson & Sawi, 2015; de Bruin, Treccani & Della Sella, 2015). The present meta-analysis included 102 experiments investigating the BA: 62 reported significant results supporting it, 6 reported significant results showing a Bilingual Disadvantage and 34 showed no significant difference between language groups or mixed results. Thus, 39.22% of published articles are not in support of the BA. The 62 supporting articles were submitted to a p-curve analysis to assess the potential effect of p-hacking (Simonsohn, Nelson, & Simmons, 2014a, 2014b). Results show that the majority of studies find highly significant results (65% $p \leq 0.025$), suggesting that evidential value is present, but an increase in number of publications from $p = 0.03$ to $p = 0.05$ suggests that p-hacking may have occurred to some extent.

Comparison to the underpowered p-curve suggests that the submitted studies suffered from low statistical power, with an average estimated power of 48% (*90%-CI*: 32% - 63%). Underpowered studies tend to overestimate their effect size (Ioannidis, 2008) and considering the small average effect size (d=0.3) reported in a previous meta-analysis (de Bruin, Treccani & Della Sella, 2015) the magnitude of the BA has to be questioned.

This is in agreement with previously reported methodological issues (Paap et al. 2015), but the p-curve suggests that p-hacking, while present to a small extent, is outweighed by highly significant results. The effect of publication bias would consequently be very limited. The same applies to a confirmation bias with 39.22% of published research challenging the BA to some degree. A more serious issue is the combination of low statistical power with small effect sizes, which will need to be investigated further.

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The use of groundless locative statements in Chiapas Zoque

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Locative statements of all types are discussed with reference to two conceptual entities (Talmy, 1983): the *figure* (the object being located) and the *ground* (the object relative to which the figure is located). When discussing projective locative statements (those that require a frame of reference [FoR] for their interpretation) the additional concept, introduced by Levinson (1996), of the *anchor* (an entity that serves as a model for the FoR) is also required. An example of a projective locative statement with these elements labelled is,

[The car]figure is to [the west]anchor of [the house]ground

It is a well-known phenomenon cross-linguistically that some FoRs can be expressed through locative statements in which their anchor is ambiguous. A less commonly discussed phenomenon of under-specification in projective locative statements is the *obligatory* use in some languages of groundless locative statements to express particular FoRs.

I will present the case of Chiapas Zoque (CZ; Mixe-Zoque), an under-described language spoken in southern Mexico, in which groundless locative statements are the preferred, and in most cases the only, way in which to express non-intrinsic FoRs (those in which the ground and the anchor are *not* the same object). A representative example of such groundless statements is,

jə?=mə	tə?p-pa=mə	hama	∅-?it-u	te?	pelota
PROX=LOC	darken-ICP=LOC sun		3ABS-EXIST-CP	DET	ball

``*Here, the ball is in the west.''*

I will argue that this grammatical feature is directly related to the dispreference shown by CZ speakers for non-intrinsic FoRs when providing locative information on a small scale. This dispreference is in contrast to the free use of a variety of non-intrinsic FoRs observed in small-scale descriptions of orientation (the conceptual structure of which does not feature a ground). The primary data to be used to support this argument were collected by the author in the Mexican town of Ocotepec, using the Ball and Chair communicative task (Bohnemeyer, 2008).

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Fields of Conceptual Coherence: Or, How Making Sense "Makes Sense"
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The 'assumption of coherence' (Brown and Yule 1983: 192), or how a text (as a discursive event) "makes sense", is often described as a 'property of interpretations' (Fairclough, 1992, p.83; Charteris-Black, 2014, p.55). In this paper I argue that discourse coherence is an emergent property of conceptual relations structured by an integrated network of conceptual domains. The working hypothesis is that if we view coherence as the effect of an integrated conceptual network (Fauconnier, 2009) framed by a discourse space (Langacker, 2002) then we can begin to resolve the 'assumption of coherence'. I argue that it is the *assumed coherence* of integrated conceptual networks which constitutes not only the formation of meaning at a meta-textual level but also the 'entrenchment' of ideological construals, a matter which is of significant import to cognitive linguistic approaches to critical discourse analysis (Hart, 2014, *inter alia*). In this paper I build upon the integrated model of discourse processing proposed in McDonough (forthcoming) by establishing a correlation with the relational network model of neurocognition (Lamb, 1999) so that we can begin to develop a "fully cognitive" account of discourse coherence. I demonstrate this by mapping a selected discourse practice, namely, the development of 'austerity' as a concept in texts produced between 2009 and 2011. By mapping emergent conceptual properties, I demonstrate that coherence is generated as the result of the sum totality of conceptual relations rather than as a formal property of textual structure. Furthermore, I claim that it is the proliferation of recurrent conceptual networks in speech communities, and the recurrent commonality of their production, that leads to the entrenchment of coherent ideological narratives.

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Empty prefixes in Croatian: Busting a myth

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An empty prefix is defined as one that is purely grammatical, i.e. one that does not modify the meaning of the base verb, but simply changes its aspect. For a long time, empty prefixes have been an interesting topic in Slavic linguistics, generating polarized scholarly work – on the one hand, there are those who are absolutely certain that they exist, and on the other, those who are absolutely certain that they do not. In general, Croatian linguists have tended to avoid the issue. Even the grammar books at most state that in some cases the prefix does not seem to change the meaning of the verb, but simply changes its aspect and do not elaborate on this. Here, we will argue that empty prefixes actually do not exist in Croatian. Our position is that in those prefixed verbs that are usually considered to be the perfective pairs of imperfective simplex verbs (e.g. *napisati – pisati*) the prefixes are not empty, but in fact still retain their meaning (usually their original spatial meaning). However, their meaning does not feature as prominently in the meaning of the prefixed verb as a whole, as it does in the case of a lexical prefix. The reason for this is that in the case of such verbs the image schema characteristic of the preposition in question is already present in the event scenario of the base verb. Thus, in the case of *napisati* (to write (perf.)), the surface image schema that is expressed by '*na-*' *features* so prominently in the event scenario of this verb that it is taken for granted. Our claim is based on the semantic analysis of Croatian prefixed verbs that have, in various grammar books, been described as those containing empty prefixes, as well as of those for which the lexicographic description in Anić's dictionary indicates that the prefix affects primarily their status with respect to perfectivity. This analysis reveals that the semantic contribution of the prefix can always be identified.

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Straightforward metonym, versatile metaphor:
The power of non-literalness in how adults perceive idioms
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Main interests of this project: The factor of non-literalness in the semantic processing of (German) idioms; creating an idiom corpus based on empirical studies.

Metonymy is more basic to cognition than metaphor[2]; both are more complex than literal language, as theoretical and empirical findings suggest. This has not been tested in idioms. This project focuses on the effect of (non-)literalness on semantic and cognitive processing of idioms. Degree of familiarity, transparency, and degree and kind of non-literalness are expected to influence processing difficulty, also in idioms. Specifically, the author suggests a causal relationship from non-literalness to transparency *(article submitted)*: Nature and degree of non-literalness directly impact the degree of transparency. Transparency is defined as a combination of how closely related an idiom and its meaning are (Nippold and Taylor 2002; Cacciari and Glucksberg 1995) and second, an idiom's understandability (cf. Nunberg et al. 1994).

An explorative study with 430 adult German native speakers was conducted in four separate rating surveys on familiarity, degree of non-literalness, understandability, and relatedness between each idiom and its meaning. The items are 80 literal, 80 metonymic, 80 transparent metaphorical, 80 rather opaque metaphorical idioms, idiom types unknown to the participants and predefined by the author.

Several significant correlations in ratings were found. Most interestingly, participants seem very susceptible to the relatedness between an idiom and its meaning and to its degree of non-literalness. Significant correlations were found between understandability and the closeness of relation, and between understandability and non-literalness (the more easily understandable, the more literal the idiom was rated).

A highly significant negative correlation was found between degree of non-literalness and relatedness, i.e. the more non-literal an idiom was rated, the more likely the relationship between idiom and meaning was rated as distant. Strong interactions were found between idiom type and understandability as well as between idiom type and non-literalness: Metonyms were much more frequently rated as both more easily understandable and more literal than metaphors. The same, somewhat weaker, effect was observed in transparent vs. opaque metaphors. This finding indicates that the relatedness between metonymic idioms and their meanings is perceived as closer than in metaphorical idioms. In sum, the findings show that native speakers are very perceptive to different kinds and degrees of non-literalness. The findings are interpreted as causal relationships between transparency, non-literalness and understandability and it is hypothesized that they will be confirmed in future reading experiments (measuring reaction time and the N400 component).

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[2] Examples for metonymic idioms: *ein Auge für etwas haben*, [to have an eye for something]; *ein offenes Wort sprechen*, [to speak an open word]
Examples for metaphors:
1) transparent: *jmd'es Herz schlägt für jmd*, [sb.'s heart beats for sb]
2) opaque: *Geld auf den Kopf hauen* [to hit money on the head; to spend money recklessly]

The spontaneous production of a two year old child. A usage-based approach to the acquisition of Italian.

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According to Usage-Based models, children's grammar is describable as an inventory of schematic constructions developed around specific items (**kiss** *KISSEE*) and inferred by generalising across specific utterances previously encountered (*kiss me*, *kiss daddy*).

Earlier work, e.g. Lieven et al. (2009), has shown that 79% to 93% of what two year old English-speaking children say can indeed be described in terms of lexically-bound schemas, instantiated by specific sentences children have previously experienced.

However, it is not clear how well those results generalise to languages, such as Italian, with a freer word order and more inflectional morphology than English.

Dabrowska & Lieven's (2005) method was modified for use in this study. A 2 year old Italian native speaker was recorded for 36 hours during a period of six weeks and the data collected was divided into a test corpus (consisting of the last day of recordings) and a main corpus (everything else). The former represents a picture of the child's language at a given point in development. The latter represents his previous linguistic experience. Each multi-word sentence (*kiss you*) uttered in the test corpus was traced back to putative schemas (*kiss KISSEE*) instantiated (*kiss daddy, kiss me*) at least twice in the main corpus.

89% of sentences could be derived from lexically specific units that were attested at least twice in the main corpus; this is similar to previous findings on English-speaking children. Virtually all of the remaining sentences contained word combinations that had only one precedent in the main corpus. Hence, the child previously encountered (nearly) all the constructions he used. Results are consistent with usage-based models.

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Towards a Refinement of Frequency-Effect Accounts of Grammaticalisation

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Although supported by a substantial body of empirical studies, cognitive-linguistic explanations of grammaticalisation based on frequency effects are still in need of further refinement. Frequency-effect accounts of grammaticalisation rightly proceed from the assumption that the formal and functional changes characteristic of grammaticalisation may result from cognitive processes propelled by repetition. Most commonly, repetition has been considered in terms of a linguistic expression's (absolute) frequency of use, as represented by the measure of token frequency in a corpus. However, the pivotal role of frequency, at least of absolute token frequency, seems to be called into question by corpus-based reports on the grammaticalisation of low-frequent expressions (e.g. Brems 2007) and on cases of grammaticalisation with delayed increases of discourse frequency (e.g. Mair 2004).

Drawing on corpus data from three new case studies, this paper argues that special attention has to be paid to the actual complexity of frequency concepts and measures. The grammaticalisation processes of (i) the English habitual auxiliary *used to*, (ii) the conjunction-like formal idiom *X, let alone Y* and (iii) the German degree modifier *ein bisschen* 'a bit$_{DIM}$' involve high, low and medium discourse frequencies respectively, allowing for investigations into the motivations and mechanisms of grammaticalisation under different frequency constellations. By default, high token frequency is a key factor fuelling chunking, phonological reduction, loss of internal structure and other changes. However, the requirement of high absolute token frequency can sometimes be overridden by other factors, most notably by pragmatic salience and words' relative frequencies of co-occurrence. Moreover, lower-frequency expressions tend to grammaticalise not independently but only when assisted by strong paradigmatic associations to other (more established) micro- and meso-constructions that can serve as attractor sets. This paper concludes that more research must be devoted to testing the exact influence and interaction of diverse frequency- and repetition-related notions in grammaticalisation, including conceptual frequency (Hoffmann 2004), type frequency (e.g. Bybee 2013), critical frequency (Peng 2012), collocations (e.g. Bybee & Torres Cacoullos 2009) as well as cotextual and contextual entrenchment (Schmid 2014).

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How to cook with the locative alternation
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It has long been widely recognized that the two variants of the locative alternation reflect different construals of the same event: change of location and change of state (Pinker 1989). While most of the previous studies are based on invented examples, paying little attention to actual uses of the two constructions, this study presents a register-specific analysis of the locative alternation. Among the registers in which many alternating verbs (e.g. *sprinkle*, *drizzle*, *brush*) are often found is the recipe.

(1) Sprinkle salt over the meat
(2) Sprinkle the meat with salt.

Drawing on data from scanned cookbooks, I have examined how the two constructions are used in the recipe context. The results include the following:

1. The alternating verbs occur much more frequently in the location-as-object variant than in the locatum-as-object variant.

2. Although it is well known that direct objects are often omitted in recipes (Culy 1996), the omission is not evenly found in the two variants. Specifically, the location object, which typically corresponds to a main cooking ingredient, is frequently omitted (e.g. *Sprinkle Ø with salt*) while the omission of the locatum object, which usually corresponds to seasoning, is rare.

3. The locatum-as-object variant is sometimes used as the verb-particle construction such as *Sprinkle over the salt*, in which the location is missing again.

In connection with 1, I argue that the different uses of the two variants are motivated by some characteristics of recipes. One of the most important procedures in recipes is flavoring, which lends itself well to the construal associated with the location-as-object variant, i.e. changing the state of main cooking ingredients, such as meat and vegetables. With respect to 2 and 3, since location entities are usually considered to be topics, they can be easily omitted (cf. Haegeman 1987; Brown and Yule 1983).

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An Investigation into L2 Metaphoric Competence: A Language-based Approach

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The ability to 'comprehend' and 'use' metaphor in a second/foreign language (L2 *metaphoric competence*) has long been recognised as an important part of language learning and teaching. Foundational work in this area by Low (1988) and Littlemore and Low (2006) contains detailed descriptions of how L2 learners might need to understand, form and manipulate metaphor in language. Research into the relationship between *metaphoric competence* and vocabulary knowledge (e.g. Azuma, 2005) and language proficiency (e.g. Teymouri Aleshtar & Dowlatabadi, 2014), however, has been very limited. In cognitive based research (e.g. Littlemore, 2001; Chen & Lai, 2015), *metaphoric competence* has meant different things to different researchers and has often been measured in a highly restricted way. This paper begins to address these gaps.

This presentation reports on the only quantitative, systematic investigation into the 'measurability' of the construct and sub-components of *metaphoric competence* amongst L1 and L2 speakers. We also investigated the relationship of L2 *metaphoric competence* with L2 vocabulary knowledge and general L2 language proficiency. Participants were 112 non-native speakers of English (L1 Chinese) and 31 English native speakers. Participants completed a battery of ten *metaphoric competence* tests to measure metaphor-related skills and competencies as proposed by Low and Littlemore. All of the tests elicited receptive skills/understanding (multiple choice, acceptability rating, explain the meaning), seven of the tests also elicited productive skills (constrained response formats). In addition, all participants undertook vocabulary tests of 'size' (Meara, 2015) and 'depth' (Read, 1998). The non-native speakers also completed the Oxford online placement test. Scores from the *metaphoric competence* tests were analysed for reliability, and particular items and sub-tests were eliminated before further analyses were conducted.

The findings provide a more nuanced picture of the relationships between L2 *metaphoric competence*, lexical knowledge and L2 language proficiency than previous work. Preliminary factor analyses suggest that *metaphoric competence* correlates strongly with vocabulary knowledge (both size and depth). In addition, some of the proposed subcomponents of *metaphoric competence* were strongly associated with one another and so the proposed constructs may overlap. Methodological challenges for measuring *metaphoric competence* in L1 and L2 are discussed.

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Force Dynamic Constructions in ASL

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Despite the popularity of force dynamics, few have applied these tools to the analysis of signed languages. Interestingly, all those who have made such an attempt have commented on the apparent reflection of the semantic properties in the phonological form of signs (Gee & Kegl, 1982; Shaffer, 2002; S. Wilcox & Wilcox, 1995). Bearing in mind this potential for force dynamic patterns in sign structure, I propose that signed languages can encode force dynamic concepts in the formal properties of signs.

Taking a functional approach, ASL signs with similar formal properties are analyzed for functional overlap. For example, REMIND, PICK-ON, FLATTER, and BULLY share several formal properties, including a 1-handshape on the non-dominant hand, contact between the dominant and non-dominant hand, and variations on path movement (fig.1).

Utilizing Hopper and Thompson's transitivity parameters (1985) and a construction-based analysis (Croft, 2001; Goldberg, 2006), I show these signs constitute a transitive construction, marking both agent and patient, with varying degrees of interaction depending on the movement and potency/repetition of contact. Further analysis reveals force dynamic patterns are encoded systematically in each of the formal parameters of this construction. More broadly, I argue that force dynamics, while traditionally used for semantic analysis, can be repurposed to understand formal properties of signed languages.
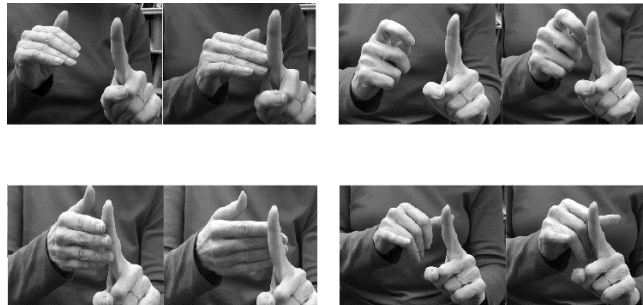
Figure 1) ASL signs: (L to R) REMIND, PICK-ON, FLATTER, and BULLY

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A Countability Hierarchy Based on Boundedness:
An Observation of Japanese Abstract Nouns and Count Classifiers *ko* and *tu*

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This paper intends to clarify that semantic features of Japanese abstract nouns affect the extent to which they allow countable (individuated) interpretation, by examining their co-occurrence with count classifiers *ko* and *tu*. Signaling individuated interpretation of a noun, the two classifiers differ in the selection of co-occurring nouns: *Ko* is more restricted than *tu* and only selects highly individuated nouns (Mano, 2004).

?3-*tu*-no / *3-*ko*-no jishin	'three confidences'
3-*tu*-no / *3-*ko*-no sainoo	'three talents'
3-*tu*-no / 3-*ko*-no mondai	'three problems'

The present study hypothesizes a countability hierarchy based on boundedness (THING vs. SITUATION; EVENT vs. ACTIVITY/ STATE) (Ikehara et al, 1997; Brinton, 1998), such that the more semantically bounded a noun is, the more individuated it becomes and therefore more naturally allows *ko*. Japanese native speakers (n=267) participated in the experiment where they judged the naturalness of *ko* and *tu* with a target noun on a seven-point scale. Two types of abstract nouns with three categories were tested:

> Simple nouns (n=72)
> > (1) OBJECT (bunka 'culture')
> > (2) EVENT (jiko 'accident')
> > (3) RELATION or STATE (riyuu 'reason'):
> Verbal nouns (n=30)
> > (4) EVENT (kekkon 'marriage')
> > (5) ACTIVITY (unten 'drive')
> > (6) STATE (shinpai 'worry').

First, results showed that simple nouns were more easily counted than verbal nouns. Although *tu* was judged more natural than *ko* overall, differences between the two indicated an increasing order of countability: (5) < (6) < (4) < (2) < (3) and (1). The reason for (5) ACTIVITY to have been judged less countable than (6) STATE (both semantically unbounded) is presumably attributed to the fact that activities are preferably counted by different types of classifiers (*kai* 'time': two times of drive rather than two drives). Nevertheless, varying degrees of individuation were found depending on semantic features of abstract nouns. Further implications of countability and boundedness will be discussed in the presentation.

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Lexicalization of extended references of nominals and argument-adjunct asymmetry

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This paper tries to show that extended references of nominals found equally in argument and adjunct positions are more likely to be lexicalized than those which show lopsided distributions. With the basic assumption in mind that meaning extensions are basically generated in argument positions (Waltereit 1999, Sweep 2009) and part of the conventionalized extensions are to be employed also in adjuncts, extended references of 60 nominals (30 from both English (British National Corpus) and Japanese (Balanced Corpus of Contemporary Written Japanese)) with 500 tokens for each nominal are classified according to argument/adjunct status.

One of the nominals under survey is VOICE(S) in English, and the result of the distribution is given in the following table. (AL: literal usage in argument positions, JL: literal usage in adjunct positions, AE: extended usage in argument positions, JE: extended usage in adjunct positions)

VOICE(S) [AL: 193, JL: 234]

AE	57 (Person/People: 29, View/Opinion: 23, Representative: 2, Accent: 2, Singer: 1)	11.4%
JE	16 (View/Opinion: 10, Person/People: 5, Singer: 1)	3.2%

The extended references attested both in argument and adjunct positions are listed in dictionaries (12 dictionaries for both English and Japanese are consulted) as distinct meanings of the relevant nominals more frequently than those references found only in arguments, and the important thing is that the tendency does not change in accordance with the frequency of the extended references. That is, both frequent and infrequent extensions are likely to be regarded as lexical meanings in dictionaries just as long as they are employed freely irrespective of the syntactic contexts, when compared with those extensions which are more limited in the context in which they are to occur. This tendency is observed both in English and Japanese.

The research deals only with a limited number of examples with respect to a small number of nominals, but still the general tendency corroborated by χ^2 tests seems to support the claim that the entrenchment of lexicalized meanings is at least partly reflected on the distribution of usages of those meanings. And if the basic assumption presented at the outset is on the right track, this is not a strange thing to happen.

Dictionaries list what are intuitively regarded by editors and contributors as the established meanings of lexical entries, and their intuitive judgments are not without any reason.

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To the left or to the right? The impact of animacy in spatial configurations in English and Spanish

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Following Levinson's (1996, 2003) seminal work, much research sheds light on the factors guiding spatial reference frame selection (e.g. Surtees et al. 2012, Tenbrink et al. 2011). We present a contrastive empirical approach that highlights how animacy affects frame selection in static lateral configurations in English and Spanish.

In two experiments (one per language) we presented participants with a spatial scene (a person facing an object) and a written spatial description: 'X is to the left/right of Y'. Their task was to locate X (locatum) with respect to Y (relatum) choosing between two possible answers: A or B (located on opposite sides of the relatum). If participants located the locatum using their own left and/or right, they were using a relative frame of reference; alternatively, if they located the locatum employing the relatum's left and/or right, they were using an intrinsic frame of reference. To analyse the impact of animacy on their decision, we used 5 different relatum types (RTs) according to 5 different levels of animacy, RT1 having the least –i.e. no– animate features (e.g. a tree) and RT5 having the most (e.g. a human being).

Results show that the relative frame was preferred throughout. However, Spanish speakers tended to switch perspectives and adopt the intrinsic frame with increasing features of animacy in the relatum. This contrasts with English speakers, who used the relative frame regardless of the attributes of the relatum.

This may be due to the absence of a synthetic genitive structure in Spanish and the fact that inalienable possession is a salient phenomenon in Spanish. We thus assert that the identified patterns of reference frame selection preference result from the interaction of linguistic and possibly also psycho-cultural factors. Our contribution hence endorses the Worfian view regarding linguistic relativity.

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Figurative Reasoning in Hedged Performatives

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In explicit performative utterances, English and many other languages allow an illocutionary verb to be "hedged" by e.g. modal, attitudinal, or emotive words or expressions (see e.g. Fraser, 1975; Panther, 2015). A conceptual-pragmatic puzzle about hedged performatives is that, in many cases, the illocutionary force denoted by the verb persists, whereas in other cases, hedging defeats the performativity of the illocutionary verb.

In this talk, we focus mainly on what we call *illocutionary force preserving* hedges, as in (1)–(3):

(1) I *would argue* that this president has had more land on his plate from the day he got in office than any other president – including Franklin Roosevelt. [COCA]

(2) I *would like to thank* you for your confidence, Mr. President, and for the appointment [...]. [COCA]

(3) I *am happy to report* that the kitchen performed a lot better on subsequent visits [...]. [COCA]

Notably in (1)–(3), despite the hedging, the utterances count as an instance of arguing, thanking, and reporting, respectively.

In contrast to the above are illocutionary constructions in which a hedge *defeats* the performativity of its verb, as in (4)–(5):

(4) I *would like to appoint* you as my Senior Advisor [...]. [GloWbE]

(5) "I am the captain of this craft," Pancho said firmly. "I *can order* you to stay inside." [COCA]

In uttering (4) the speaker does not accomplish an act of *appointing*, but merely expresses the *wish* to appoint the addressee in the future. Likewise in (5), the speaker does not accomplish an act of *ordering* the hearer to stay inside.

To account for illocutionary force preserving cases like (1)–(3) we rely on a model of figurative, i.e. metonymic, reasoning leading to a target sense of ACTUALITY, which, for reasons elaborated in the talk, is blocked in illocutionary force defeating hedges like (4)–(5).

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Conceptual Reification and Zone Activation in Conversion

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The objective of this presentation is to offer an analysis of conversion in English (and Korean) from a Cognitive Grammar perspective (Langacker 1987, 1991, 2008). In recent publications within cognitive linguistics, there is a certain degree of consensus on the metonymic nature of conversion, whether the direction be [N to V] or [V to N] (see Kövecses & Radden 1998; Dirven 1999; Schönefeld 2005; Janda 2011; Brdar & Brdar-Szabo 2014, among others). Nevertheless, I observe that there are some limited cases of conversion that cannot be identified as a metonymic process. In (1–3), the converted nouns exhibit eventive readings, displaying the full argument structure of the corresponding verbs. In these cases, the converted nouns behave like *-ing* nominals or affixal nominalizations.

(1) We need to understand our technological behavior as a **constant blend of** these very different modes of consciousness. (American Heritage 1998)
(2) […] bouts of coughing unrelated to colds or the **frequent spread of** any symptoms to the chest when you do have a cold. (Consumer Reports 2007)
(3) […] he said, in a conversation punctuated by the **frequent crash of** beer empties in a trash can behind the car. (San Francisco Chronicle 1991)

Based on these observations, I argue that the main function of this type of conversion is to conceptually reify the complex process itself after scanning it summarily. Unlike a typical reification process, however, this process does not motivate a shift to a thing, maintaining the profiled internal summary scanning. Due to the lack of a (implicit) shift in profile, the metonymic interpretation of the aforementioned examples is not available. I further argue that, owing to the overlapping function of this type of conversion with that of *-ing*, the converted nouns in (1–3) can readily alternate with the *-ing* nominals.

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A prototype-based view on post-verbal NPs in *there*-constructions

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It has been claimed in the formal literature (e.g., Milsark, 1974) that only formally indefinite noun phrases can occur in the post-verbal position in *there*-constructions (e.g., **There is the dog in the room*, Milsark, 1974, p.195). However, as the formal approach treats the notion of definiteness in purely syntactic or semantic terms, there remain many counterexamples to this constraint. It appears that pragmatic and cognitive accounts are gaining currency. Among them, Birner & Ward (1998) identify five types of *there*-constructions with formally definite NPs: hearer-old entities treated as hearer-new (i.e., reminders); hearer-new tokens of hearer-old types; hearer-old entities newly instantiating a variable (i.e., list); hearer-new entities with individuating descriptions; and false definites. However, despite the fact that Birner & Ward's five types of exceptions are informed by corpus data, they do not discuss their relative frequencies. Grounded in the concept of token-frequency and prototypicality in usage-based Cognitive Linguistics, this paper looks at relative frequencies of these types in written and spoken English. As the other parameters for measuring prototypicality (e.g., experimental tests) are not suitable in this case, I use frequency of occurrence as a proxy for prototypicality (see e.g., Gilquin, 2006). The data consists of two samples of 1,000 examples of *there*-sentences, randomly collected from the written and spoken components of the British National Corpus. I have manually analysed these examples according to the five types that Birner & Ward (1998) identify. In speech, the central member of five types is the 'reminder' as in 'there's the machine' (BNC KDM 7405). In contrast, the 'list type' (e.g., *there's only you and Shirley here*, BNC KB7 6661) is less central, while other types are even more peripheral. In written English, on the other hand, the 'list' reading (e.g., *there was Duran Duran, Spandau Ballet...,* BNC CHB 1477) is the most frequent type. The findings reflect the different nature of language mode: in speech the demands on interlocutors' working memory are higher than in writing, where it is possible to reread/revise what one has read/written This study builds on Birner & Ward (1998) in a more representative usage-based fashion, yielding a radial network of five types of *there*-constructions with formally definite noun phrases.

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Creative use of language in YouTube vlogs:
A Cognitive Grammar analysis of neologisms

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In recent years, along with the increasing popularity of online video blogs (so-called 'vlogs'), new word formations have entered mental lexicon. Previously recognized only by the Internet users, certain neologisms are now being used regularly in day-to-day discourse.   A successful interpretation of newly-coined word formations, such as *vlogmas*, *caturday* or *Fridiary*, crucially relies on intra-linguistic knowledge as well as on contextual frames involving extra-linguistic knowledge of the world. Although neologisms in general have long been a subject of interest to linguistics and particularly to Cognitive Linguistics (cf. Kemmer 2003, Lipka 2010, Veale and Butnariu 2010, Augustyn 2013), no attempts have been made so far, it seems, to examine neologisms used by YouTube video bloggers (otherwise called 'vloggers') in the framework of Ronald Langacker's Cognitive Grammar. This presentation is meant to partly fill this gap. Methodology of research includes a general analysis of YouTube video-blogs, and then detailed scrutiny of selected lexical items, along with the context in which the element has been used. In our analysis, we adopt Langacker's (2008) theory of the Current Discourse Space combining it with the Conceptual Blending Theory as proposed by Fauconnier and Turner (2002).

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A Corpus-based, Constructional Account of English NP Inversion
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This paper outlines a corpus investigation of English NP inversions, such as (1), analysed within the framework of construction grammar.

1. A particularly striking feature of the report is the growth in coverage in manual operations   (ICE-GB, S1B-058)

This NP BE NP sentence is introduced by an indefinite noun phrase, which seems to be predicated of the postcopular NP. Consequently, such examples are relevant both to work on full inversion, that is, sentences in which "the subject occurs in postposed position while some other dependent of the verb is preposed" (Huddleston and Pullum 2002: 1385) as in the locative PP inversion in (2), and to accounts of specificational copular sentences of the form NP BE NP, as in (3).

2. In the radio car is Sir Geoffrey Johnson-Smith   (ICE-GB)
3. The lead actress in that movie is Ingrid Bergman   (Mikkelsen 2005:1)

However, the analysis of NP inversion sentences has held a somewhat marginalised position within data-oriented studies of full inversion. The difficulty in reliably distinguishing which NP is subject and which is complement has led some authors to exclude this sentence type from corpus analysis (see for example Dorgeloh 1997). Others discuss indefinite NP inversion examples without considering the many formal accounts of specificational sentences *as instances of* inversion (see for example Moro 1997; Mikkelsen 2005). Prado-Alonso (2011: 29) notes simply that these constructions have "sometimes been confused".

Among the formalists, inverse analyses of specificational NP BE NP sentences present strong arguments against the treatment of examples such as (3) as simple equative (or identity) structures. Their challenge is to explain why inversion is almost always possible for sentences with definite NP predicates, but is only sometimes possible for sentences with indefinite NP predicates, shown in (4). Nevertheless, the formalist literature only rarely engages with functionalist approaches to full inversion.

4. *A doctor is John   (Mikkelsen 2005: 154)

In this paper, I provide a corpus-based, constructional account of indefinite NP inversion. Data is obtained from the ICE-GB, using a complex retrieval method. I find that NP inversion is more frequent than is suggested by studies of full inversion, and is assumed by theoretical accounts of specificational sentences. Drawing on the findings and theories within both literatures, I identify clear subtypes of NP inversion, along with a range of construction-specific functions that interrelate, in interesting ways, both with the textual-cohesive characteristics of full inversion and the semantic properties of specification. By situating indefinite NP inversion constructs within this network of related constructions, my analysis has implications for both fields of study.

Processing Differences Between Positive and Negative Words: The Effect of Valence

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There is a clear adaptive advantage in being able to detect a potentially harmful stimulus as quickly and accurately as possible, which could mean that our attentional systems have evolved to process positive and negative stimuli differently (Pratto & John, 1991; Wentura, et al., 2000). While previous research has indeed found some differences in how quickly positive and negative words are processed, the evidence is inconsistent and inconclusive. Moreover, none of these studies have adequately controlled psycholinguistic variables that typically affect word processing, such as arousal, word length, word frequency, orthographic neighborhood, phonologic neighborhood and concreteness. Hence, it still remains unclear whether there really is a difference in how easily people can detect positive and negative stimuli. The aim of the present research is to establish whether processing differences exist in the detection of positive and negative words through behavioural measures.

Experiments were carried out in which participants were asked to perform a standard word detection task, which involved viewing individual words on a screen for extremely brief display times at the threshold of subliminal perception (33 ms), and making a judgment about the emotional connotation of the word. All words have positive (e.g., puppy), neutral (e.g., table), or negative (e.g., corpse) affective valence according to published norms. A range of recent megastudy psycholinguistic databases (Balota et al., 2007; Brysbaert et al., 2014; Warriner et al., 2013) were used to control arousal, length, frequency, phonologic and orthographic neighbourhood that could affect word processing.

It is expected that there is a processing advantage for negative words over positive words when being categorized as emotional or not. the categorization accuracy and valence-detection sensitivity for negative words are expected be higher than those of positive words. The results will provide experimental support to the preferential access of perceptual processing of words with different valence.

What can binominals tell us about cognition?
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"The human mind … operates by association. With one item in its grasp, it snaps instantly to the next that is suggested by the association of thoughts, in accordance with some intricate web of trails carried by the cells of the brain" (Bush 1945).

The associative nature of human thought referred to by Bush finds its linguistic expression in a number of ways, not least in nominal compounds – or more precisely, [N+N] compounds. Such compounds embody an implicit relationship or "association" between two different "items" (to use Bush's terms). This paper presents research based on the hypothesis that an understanding of the nature of such relationships, their frequency and formal realization across multiple languages, might provide insights into the working of the human mind.

The primary function of [N+N] compounds is to name complex concepts by combining the names of two existing concepts. The nature of the unstated semantic relation between the two constituents has been the subject of considerable research, primarily for English (e.g. Levi 1978; Jackendoff 2010; Bauer & Tarasova 2013), but also for other languages (e.g. Bourque 2014; Eiesland 2016). One of the goals of the present research is to investigate whether insights gleaned in such studies have more general, cross-linguistic applicability.

While [N+N] compounds may be near-universal (Bauer 2009), they are not necessarily the preferred way of naming complex concepts. For example, Romance languages make more extensive use of a construction involving a preposition (e.g. French *chemin <u>de</u> fer* 'railway'), while Slavic languages are more likely to employ a relational adjective (e.g. Czech *slune<u>ční</u> energie* 'solar energy'). Such constructions, consisting primarily of two nominal roots, are subsumed under the term "binominal naming construction" – or binominal for short.

In an onomasiological study of binominals, the forms used to represent 200 basic meanings are being investigated across a sample of 100 languages. Preliminary results suggest the existence of two distinct but overlapping "mental pathways" for providing access to complex concepts. This presentation describes those findings in the context of Cognitive Grammar and invites suggestions as to *what else* binominals might tell us about cognition.

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A distributional semantic approach to identifying stages in constructional productivity change

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Much work in historical linguistics involves identifying stages of language change: periods of relative stability and times of shift in the recorded usage of some construction. In recent work, Gries & Hilpert (2008) proposed a quantitative usage-based approach to this issue, called variability-based neighbour clustering (VNC). VNC is a customized version of agglomerative clustering that consists in aggregating adjacent periods that are closely similar in terms of some quantitative criteria measured on the relevant construction in diachronic data. The output of VNC is a partition of the time scale into periods that are maximally coherent with respect to the relevant criteria.

Most applications of VNC so far have taken as their basis purely quantitative information: token frequency, type frequency and other measures derived from them, or the frequency distribution of lexemes occurring in one of its slots. However, information of this kind does not directly capture semantic dimensions of change, such as whether the construction is used with different semantic classes of lexical items.

This paper presents an extension of VNC that addresses these limitations by drawing on a distributional semantic model as a proxy to word meaning. Drawing on the observation that words occurring in similar contexts tend to have similar meanings, distributional semantic representations approximate the meaning of a word by recording its co-occurrence with other words in a vast corpus (Turney & Pantel, 2010). The present approach consists in adding the distributional representations of all words occurring in a construction at different points in time, and using the resulting combinations as input to VNC. The method is illustrated by a case study on the recent history of the *way*-construction, showing how VNC identifies successive periods of productivity during which the construction has gradually attracted more abstract classes of verbs.

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The man your man could smell like: The role of metaphor, irony, and paradox in the viralisation of advertising campaigns

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Like a virus, viral marketing has the potential to reach many consumers in a relatively short period of time and sometimes on a global scale (Van der Lans and Van Bruggen, 2011) For instance, Knight (1999) compared viral marketing to a "digitalised sneeze" that releases "millions of tiny particles that can infect others who come into contact with them". However, little is known about what it is about viral marketing campaigns that makes consumers want to engage with the content, and more importantly, their willingness to pass the message on. One feature of viral advertisements that may influence the success rate is the nature of the figurative operations that they contain. Figurative operations have been shown to increase product/brand recognition and recall and consumer preferences (see McQuarrie and Mick, 1999, 2003; Morgan and Reichert, 1999). In this presentation we explore whether there is a significant relationship between the degree of consumer engagement in 15 viral and 15 non-viral campaigns and the nature of the underlying figurative operations that they contain. In particular, we focus on the ways in which these operations establish contrast between two realities: metaphor, irony, and paradox. Our results show that viral advertising relies on the "surprising element" significantly more than non-viral advertising; that such "surprising elements" can have different forms taking into account the connection between the two domains juxtaposed (A IS B for metaphor, A IS NOT A for irony; and A IS THE OPPOSITTE BEHAVIOUR OF B for paradox, see Ruiz de Mendoza 2011); and that the likelihood that an advertisement will go viral depends not only on the contrast set up by the advertising narrative, but also on the accumulation of multiple figurative operations.

Keywords: advertising, metaphor, irony, paradox, viral

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Rethinking Conceptual Boundaries in Hobongan: Metaphor and Grounding

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In a partial report on fieldwork conducted on Hobongan, an as yet undescribed (this project is part of the description) Austronesian language spoken by approximately two thousand people on the island of Borneo in Indonesia, I note patterns of grounding for metaphors that are available in the lexicon. These patterns include abstract metaphors based on body (throat as the source of emotion), body metaphors based on abstraction ("together" as a euphemism for sex), plant-body metaphors based on human bodies (stem of plant is spine of human), nature metaphors based on body (segment of bamboo is phalanx of human hand), geographical metaphors based on body (area of land is the group of people), and various metaphorical expressions in which the direction of grounding cannot be determined (gourd/stomach), among other patterns. Following Goschler (2005), in an age in which the neurosciences are expected to explain human thought, cognition, and behavior, it is noted that it is trivial to place embodiment just in the realm of the brain; in order to be meaningful, embodiment must be a claim about directionality in metaphorical grounding. However, evidence from Hobongan and English, which is used for comparison and contrast (for example, "hitting a home run" refers to success in any domain, with neither of these ideas (home runs and success) being particularly concrete or embodied because even people who do not understand the sport of baseball use the idiom; and "feeling blue" is a way to refer to depression, even though colors cannot be felt under the usual understanding of either of the main meanings of "feeling"—the metaphor itself requires a great deal of abstract, unembodied thought in order to understand the metaphor), in which concepts and environments provide more frequent groundings for metaphors than does the human body, suggests that perhaps embodiment is not as strong a phenomenon as might be claimed, or that metaphors are not the best choice of data for examination of embodiment, or, in a point about philosophy of language, that all of language is grounded in conceptualization (Perkins, 2009) and crosses all of the usual boundaries between language, cognition, and body that have often been thought to attain. This lattermost point avoids many of the difficulties that otherwise arise from assuming that words refer to things-in-the-world, for example how reference to abstractions such as "compassion" are even possible. With the directionality of metaphorical grounding being as flexible as it is in both Hobongan and English, the overall claim is made the metaphors provide evidence of a primarily conceptual grounding of metaphors, leaving embodiment as a sub-type of conceptualization, which in turn allows for the types of idiolectal variation that can arise from different people's conceptualizations of their experiences across the boundaries between their bodies and their minds.

Secondary Resultatives in Czech

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Various constructional accounts of secondary resultatives have been discussed and reviewed in cognitive linguistics (Goldberg & Jackendoff, 2004; Rappaport Hovav and Levin, 2001; Boas, 2003; Iwata, 2006; Croft, 2012). Taking a construction grammar approach, resultatives have been identified as argument structure configurations, in which the result state is expressed by an argument phrase (Boas, 2003, p. 2). In this view, the resultative meaning is determined by the syntactic pattern rather than verbal semantics alone; a point that is transparent in constructions with predicates that are not inherently resultative (1).

(1)   The joggers ran the pavement thin. (Goldberg & Jackendoff, 2004, p. 558)

Studies on other languages have shown that the secondary predication relation characteristic of constructions with result XPs holds cross-linguistically (Washio, 1997; Broccias, 2004). Research on Polish (Gulgowski, 2013) and Serbo-Croatian (Šarić, 2009) suggests that Slavic languages make use of prepositional phrases to encode the result state in constructions with perfective verbs. This evidence has lead to the argument that aspectual prefixes encode the result state as part of the verbal semantics. Therefore, Gulgowski (2013) argues that, unlike English, result XPs do not have a telicizing potential in Polish. However, preliminary research shows that contrary to Gulgowski's (2013) analysis of Polish, Czech resultative phrases can delimit atelic predicate constructions with imperfective verbs. Example (2) demonstrates that result XPs have a telicizing potential in Czech.

(2)   Křičela   jsem   v   tom   snu   do   ochraptění.
        Yell.PST.IMPF.   COP   in   that   dream to   hoarseness
        I yelled myself hoarse in that dream. (Czech National Corpus, syn2015)

This paper uses Croft's (2012) model of aspectual analysis to explain the use of result XPs with perfective and imperfective verbs. Moreover, it shows that Czech allows XPs to express result states in incremental and non-incremental accomplishments.

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Processing Instruction and Individual Differences:
The role of Working Memory Capacity
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Processing Instruction is a pedagogic intervention that manipulates the second language input learners are exposed to in the classroom. Proponents of this intervention claim that it poses only a minimal strain on learners' processing resources. While there has been extensive research on the benefits of Processing Instruction and on the role of Individual Differences such as age (Angelovska & Benati, 2013), gender (Agiasophiti, 2013), and linguistic background (Lee & McNulty, 2013), the role of individual differences in Working Memory Capacity has not been researched intensively.

To explore the question whether Processing Instruction is equally beneficial for learners at different points on the Working Memory Capacity spectrum, a case study on the effects of Processing Instruction has been conducted. The study addressed the most common problems of Working Memory Capacity measurements in previous research. The data collected via the Working Memory tasks were also supplemented with questionnaire data on potential mediating variables such as motivation, L2 proficiency, personality, and aptitude. The analysis of individual learner profiles addressed yet another gap in the literature:

Robinson's (2001) aptitude complexes, Snow's (1989) aptitude-treatment interaction concept, and Dörnyei & Skehan's (2003) perspective on Individual Differences all demand a look at the bigger picture. However, most of the SLA research to date has operationalised Working Memory according to multi-modular models and used quasi-experimental research designs and group comparisons, which usually fail to capture the complex and dynamic nature of Working Memory. This study addressed this gap and the results suggest that while Working Memory Capacity tends to be a significant predictor for learning success, a multitude of interactions can be observed.

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Teaching Conceptual Metaphor in the ELT Classroom

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Although the ubiquity of metaphor in language and thought has successfully been proven, conceptual metaphors have not yet made their way into the ELT classroom. Neither systematic metaphor teaching nor awareness-raising for conceptual metaphors underlying linguistic phenomena can be found in common teaching and learning material. Their cultural specificity additionally suggests conceptual metaphors as key to successful intercultural communication. Thus, they should be taught as a tool for "surviving in the L2 world" (Low 2008: 220) and ideally integrated in the students' productive vocabulary (Littlemore 2009: 94-95).

Research on conceptual metaphor teaching, which has mainly targeted language learning at university level, provides evidence that the teaching of the underlying conceptual mappings helps students recognise linkages between already acquired source domain vocabulary and the to be acquired target domain. Learners' language grows more productive and fluent while their motivation to use the language increases (Juchem-Grundmann 2009: 165-185).

Our research focuses on conceptual metaphor teaching in German secondary schools. At this level free conversation and participation in discussions are required learner competences (Ministerium 2000: 84), which could be enhanced significantly through students' "conceptual fluency" – the knowledge and use of the conceptual system of a language (Danesi 2008: 223). Various thematic fields of the tenth grade syllabus provide an abundance of conceptual metaphors waiting for exploitation in teaching. We selected the fields "social and cultural studies" and "politics and business" (Ministerium 2000: 95). Linguistic metaphors typically found here are based on such familiar source domains as RELATIONSHIP and FAMILY and thus productively facilitate cognitive transfer. Our study follows a pretest-posttest control group design, cares for ecological validity and investigates the hypothesis that explicit conceptual metaphor teaching at school influences students' language proficiency as well as their motivation. Our contribution discusses the material used for our intervention and the results of our pilot study.

Key words: conceptual metaphor; language teaching; conceptual transfer; ELT classroom; school context; intercultural communication; language competence

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Learning what not to say in Brazilian Portuguese:
the inherent pragmatics of the Adverbial Adjective Construction
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In Brazilian Portuguese (BP), verbal modification can be realized either by canonical adverbs (e.g."falar claramente", lit. 'speak clearly') or so-called "adverbial adjectives" (AAs), which lack the adverbial suffix (e.g. "falar claro", lit. 'speak clear'). The latter usage is nonetheless heavily constrained: while most canonical adverbs are freely accepted as verbal modifiers (e. g. "criticar sutilmente", lit. 'criticize subtly'), the same isn't true for AAs (e.g. "?? criticar sutil", lit. 'criticize subtle'). In this talk, we address this problem from the point of view of Usage-Based Construction Grammar. Firstly, we suggest that two different constructions should be posited in order to account for verbal modification in BP: the Canonical Adverb Construction (CAC) and the Adverbial Adjective Construction (AAC). After that, we address the issue of the partial productivity of the latter. In particular, we raise the following question: under which conditions can a suffixless modifier be inserted into the AAC? Two hypotheses are developed: (i) the AAC, but not the CAC, requires the adverb to be the most informative element in the utterance – what we call its primary focus; (ii) particularly frequent sequences of verb + AA become autonomous from the more general AAC. To evaluate these hypotheses, an acceptability judgment experiment was conducted. In the experimental group, 40 adults rated sentences containing AAs in four conditions, based on a combination of frequency (null vs. high) and focus (primary vs. non-primary). Additionally, a control group carried out the same task by rating sentences with canonical adverbs. Ordinal logistic regression provided partial confirmation for the hypotheses: whereas the odds to obtain higher acceptability values are significantly higher for sentences with primary-focus AAs in comparison to non-primary-focus AAs ($p<0.0001$), the same didn´t hold for canonical adverbs ($p=0.214$). On the other hand, no significant interaction effect was found between focus and frequency ($p=0.158$).

Style and substance: What network visualisations of sentence-sorting data can tell us about the senses of polysemous words

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The present research uses sentence-sorting tasks and network visualisation to study semantic relationships between examples of polysemous words, and to investigate whether there is evidence that word senses are stored in memory. Networks, used in complex systems theory to study the structure of systems such as ecosystems and biological processes (Newman, 2011), are used here to study semantic relationships. Networks show strength of relationships; similarity of particular sentences to all other sentences; and reveal which communities of sentences are most similar to each other, and least similar to all others. They can also be used to study whether relationships change over time.

203 participants were randomly assigned to one of twelve conditions: first, they were assigned to sort 36 examples of either *over, under, above* or *below*; second, they were assigned to sort examples which the author judged to represent only spatial uses, only non-spatial uses (single sense-type condition), or a combination of both (mixed sense-type condition). Half of the stimuli used in the single sense-type condition also appear in the mixed sense-type tasks, allowing us to assess whether network structure varies according to the presence or absence of exemplars from a strikingly different domain. The task was repeated after two months.

Initial analysis indicates that the structure of networks produced for the first and second tasks tends to be similar, consistent with the notion that senses are stored in memory. Moreover, participants in the single sense-type condition sorted stimuli differently to how the same stimuli were sorted in the mixed sense-type condition. For example, in the non-spatial condition of *below*, four communities were observed in the first task, and three in the second. In contrast, in the mixed sense-type condition of *below*, the same stimuli are found in just one community in the first and second tasks. This outcome is consistent with the exemplar categorisation model, which predicts that when stimuli are categorised according to a particular feature (which in the case of the mixed sense-type conditions, could be whether the sentence captures a spatial or non-spatial meaning), the salience of this feature grows, while the salience of irrelevant features shrinks (Medin & Schaffer, 1978; Nosofsky, 1986).

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Language Evolution in the Lab: The Case of Child Learners

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Usage-based theories suggest that the kinds of structures we observe in languages arise from general biases and constraints on individual human capacities [1]. Important to Language Evolution, these theories suggest that the cultural transmission of language over thousands of generations (through a repeated cycle of observation, imitation and induction) can lead to the emergence of linguistic structure as a cumulative by-product of speakers' weak individual tendencies [2]. Computational iterated learning models (ILM) simulating cultural transmission show that weak biases become amplified and fixated over time, creating strong linguistic universals without the need to assume strong innate biases [3]. Importantly, ILM studies with adults show that randomly constructed artificial languages become significantly structured and easier to learn over the course of multiple iterations [4].

However, to date there is no published study showing the emergence of linguistic structure over time with children. The lack of evidence from child learners is a problematic gap in the literature, as children are the most prototypical learners in the actual process of linguistic transmission, and may differ from adults in their language acquisition skills and general cognitive biases [5,6]. Crucially, adult participants may rely on their extensive and explicit knowledge of language when learning an unfamiliar artificial language, undermining the overall validity of such studies [7].

We address this problem by conducting a large-scale study of iterated language learning in both children and adults, using an original, child-friendly paradigm. Results show that despite making more mistakes overall, children's languages became more learnable over time just like adults, with the same trends and biases for learnability in both age groups. Even though we found no significant increase in linguistic structure for children, significantly consistent mapping between meanings and signals emerged in child languages on many occasions, with children creating similar structure as reported in [4]. This provides the first demonstration that cultural transmission affects children and adults similarly, with both age groups guided by the same learnability biases.

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Cognitive Linguistics and Communicative Language Teaching in Practice
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In its attention to communication as the main purpose for, and essential element in the process of language learning, the Communicative Approach is clearly in line with important ideas in Cognitive Linguistics, and the well-established literature that exists on applications of Cognitive Linguistics to language teaching tends to imply an affinity with this pedagogic approach.

Despite this, a survey of current international English-language teaching text books suggest that mainstream communicative English language teaching has been slow to pick up much that Cognitive Linguistics has to offer. 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 reports on the progress of 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 two language-teaching centres in the UK. The project's aims are to see how ideas 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.

For example, when teaching defining and non-defining relative clauses, rather than treating punctuation and intonation features in a traditional manner, as if they were arbitrary and unconnected, we successfully used a simple visual representation which explains both features in terms of metaphor and sensory experience. And, rather than treating the particles in phrasal verbs (e.g. *to clear out*) in the traditional manner, as fixed and arbitrary, we guided learners to see meaningful patterns – based on metaphor and sensory experience – in how particles are used, whereby they created new – but meaningful and communicatively successful – expressions (e.g. *to be grammared out*).

The paper will introduce materials and classroom activities developed for the project, and discuss practical challenges involved, and elaborate further on the partnership of Cognitive Linguistics and the Communicative Approach.

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Collocational knowledge as an assessment of language exposure in children learning English as a second language

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Children acquiring English as a Second Language (EL2) pose a conundrum. Does poor English reflect limited exposure, or underlying language difficulties? The reliability of existing exposure questionnaires is poor. Therefore, we investigated an alternative; collocational knowledge. In a forced choice task, children chose word combinations which "sound good", e.g. *black as ink / night*. We hypothesised that sufficient prior exposure was essential to learn the collocations. The task also assesses chunk-learning, which according to Cognitive Linguistic, or usage-based theories, plays an important role in language-learning and usage (Bybee, 2010). As far as we know, collocational knowledge has not been previously assessed in young children.

We hypothesised that (i) collocational knowledge would differentiate EL1 and EL2 children, and (ii) would be strongly associated with questionnaire-based measures of exposure. We also predicted a strong relationship between collocational knowledge and grammatical abilities, consistent with Bybee (2010)

37 L1 children (mean age 6;3) and 24 EL2 children (mean age 6;2) completed the collocations task, a vocabulary assessment (BPVS), and a test of syntactic comprehension (TROG). An exposure questionnaire was also administered. The collocations test differentiated the groups better than the TROG or BPVS. However, the relationship with the exposure questionnaire was weak. There were significant associations between collocational knowledge, vocabulary and syntax in the EL1 children (all r coefficients > 0.5, all p-values < 0.01), but not the EL2 children.

Collocational knowledge is poor in EL2 children, supporting the hypothesis that this assessment reflects exposure. However, its relationship with the questionnaire data was weak. Chunk-learning abilities were highly associated with grammatical abilities in EL1 children, supporting usage-based accounts. However, this association was absent in the EL2 children, suggesting a reduced role for chunk-learning in this group.

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Using distributional semantics to measure the alternation strength of causative verbs: a look at Theme overlap.

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This paper presents a corpus-based study of the causative alternation in English, where a transitive (causative) construction (e.g., *John opened the door*) alternates with an intransitive (non-causative) construction (e.g., *The door opened*). Previous research (Lemmens 2006) has shown that verbs that fit this description tend to be significantly attracted toward one construction or the other. This attraction is measured with the help of a collostructional analysis (Gries & Stefanowitsch 2003, 2004, 2005). Bearing in mind that the frequency of certain themes that occur in the constructions may influence the apparent alternation strength of a verb, Lemmens (ibid) focused on type frequency rather than token frequency to measure Theme overlap between the two constructions. This measure yields precise results regarding the distribution of verbs and their alternation strength, and thus more information on the construction itself. As Lemmens (ibid.) suggests, we decided to group semantically related Themes. To do so and to avoid any issue of arbitrary groupings, we relied on distributional semantics (cf. Lenci 2008, Perek, 2016). Indeed, for each Theme occurring in the transitive and/or intransitive construction we ran an analysis of its most frequent collocates, based on the intuition that Themes that share collocates are likely to be semantically close. As we will show in our discussion, by grouping Themes into semantic clusters, we are able to give a more precise account of each verb's alternation strength and by extension, a better insight into the meaning of each verb and the construction it occurs in.

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Hyperbolic constructions and cognitive modeling

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The cognitive-linguistic literature has paid more attention to argument structure constructions than to other constructional types. The present proposal contributes to filling this gap through an initial analysis of hyperbolic constructions, which capture entrenched inference-based meaning. In hyperbolic constructions, as in other constructions beyond argument-structure, the fixed elements are idiomatic or non-compositional while the variable elements are constrained by the entrenched meaning implications derived from the fixed elements. These implications, which in hyperbole are largely attitudinal, can be explained in terms of a cross-domain mapping, like metaphor, where the source is a hardly conceivable scenario, created by the disproportionate upscaling of a scalar concept, and the target a factual one. This mapping allows us to understand the speaker's emotional reaction in the factual scenario in terms of the hypothetical reaction that would be prompted if the hardly conceivable scenario could hold. For instance, in the pattern exemplified by *I have told you thousands of times not to call me* (*X (have/has) Told NP Thousands Of Times Y*) the speaker is bothered by whatever is described in Y or by the hearer's unexpected reaction to Y. Interpretively, hyperbolic constructions require an adjustment activity whereby the speaker's disproportionate increase of a magnitude is made compatible, through mitigation operations, with real-world proportions. This adjustment is offset by extra emotional or attitudinal meaning effects. On the basis of corpus examples, we discuss other hyperbolic construction types (like 'It's been ages since XP' or 'X is not Y but Z' – where Y and Z can be either an NP or an AP – in examples like *It's been ages since we all sat down together* or *He is not a man but a superman, a Jupiter* respectively) and examine their meaning effects, which we account for in terms of conceptual mappings. We also discuss the principles that regulate hyperbolic meaning derivation and argue that these are essentially the same that hold for other conceptual mappings in terms of structure selection and preservation (cf. Invariance) and the pragmatic principles of economy-effect balance. These observations call for a unified treatment of apparently disparate linguistic phenomena.

Our study requires qualitative analysis based on attested data. We have looked for formal and non-formal clues for the presence of hyperbole in a corpus gathered from a variety of sources: first, we have performed wildcard searches for patterns like 'thousands/millions/billions of times', 'it's been ages since'*,* 'X is not Y but Z', or extreme case formulations like '*brand* + adjective', '*completely* + adjective', 'forever', 'everyone', 'always', or 'never' in the *Contemporary Corpus of American English* (*COCA*). However, not all such pointers give rise to hyperbolic constructions. The nature of our study has required much manual work to disregard examples that, despite their formal coincidence with hyperbolic constructions, did not qualify as such. We have also made use of some online dictionaries (*Cambridge Dictionary Online*, *Wordreference,* and *Macmillan Dictionary Online*) with a view to cross-checking the implications arising from the different constructional patterns. Finally, our third source of data for building our corpus has been Google.

Ebola? Public conceptualisations and rationalisations of communicable diseases

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Background

The recent Ebola crisis brought renewed public interest in communicable diseases and their potential spread as people travel. This presentation investigates public conceptualisations and rationalisations of communicable diseases, the risks they pose, and the ways in which they are spread, particularly when using public transport.

The theory of mental spaces (MST) (Fauconnier, 1994) claims that words in discourse refer to information held in conceptual mental spaces, which are numerous, individual packets of short-term information opened and "modified as thought and discourse unfold".(Fauconnier & Turner, 1996, p. 113) MST offers an approach to discourse analysis that accounts for the real-time creation of meaning as discourse progresses. It is thus highly suited to an analysis of the dynamic, fluctuating nature of reasoning around (un)certainty.

Method

Three focus groups of 6-8 participants were held in early 2015, with participants being assigned to a focus group depending on whether they had travelled internationally or stayed within the UK over Christmas 2014. The focus group protocol covered general questions about travel and communicable diseases, as well as questions about specific diseases, such as Ebola. The focus groups were transcribed and analysed thematically. Within each theme, linguistic markers of epistemic modality and mental verbs were identified and counted. Themes that contained a significant ($p<0.05$) amount of these linguistic markers were analysed using mental spaces to track reasoning around (un)certainty.

Results and discussion

The mental spaces analysis shows how conceptualisations of different physical spaces interact with mental processes and levels of uncertainty. For example, contamination from one body space to another is largely an unknown, while spaces of different modes of public transport more clearly lend themselves to different levels of certainty about the nature of contagion and how to avoid it. Similarly, spaces of different travel destinations lead to various reasoning processes based upon levels of existing knowledge and information sources.

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Conceptualising Threat: force dynamics and discourse space theory in the emerging extremism discourse

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The discourse of extremism is new and constantly developing; recent events have shifted the focus onto the international arena. However, it is also a domestic issue. The complexity of the domestic situation presents a challenge to politicians whose job it is to construct the problem and present it to the British people. Cognitive Linguistic approaches to Critical Discourse Analysis focus on construal and the significance of the constructional, not representational, nature of discourse (Hart, 2015). British politicians have a delicate situation on their hands; they need to represent the problem in such a way that it does not further alienate British people on religious or racial grounds. For that reason they talk about tackling "extremism", "hate and fear – in all their forms" (Theresa May 2014, 2015). The fear is that the battle with extremism will legitimise action against anyone who is deemed to hold 'extremist' views, in the same way that the War on Terror licenced action against any perceived enemies of the US and "freedom-loving nations" (Bush 2001). This paper provides a qualitative analysis of samples of extremism discourse in the form of speeches made by Theresa May, Home Secretary. The first part analyses her discourse in terms of Force Dynamics (Talmy 2000). The force dynamic construal in this case concerns the subtle and complex interplay between the forces of the state and the forces of the abstract notion of 'extremism' which goes beyond the simplistic identification of a consistent agonist and antagonist. The second part of the analysis attempts to reveal how the opposing forces of 'extremism' and 'British Values' are construed in terms of Discourse Space Theory (Chilton 2004) and Proximisation (Cap 2009, 2010) demonstrating that even without the benefit of geographical distance and historical precedent, ideological remoteness can be conceptualised to justify the speaker's position.

Key words: Critical Discourse Analysis, political discourse, force dynamics, discourse space theory

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"I was wrapped in a soft smell" - How smells can influence perception and cognition

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The five human senses are crucial in our everyday interaction with the world, but one sense seems less important to us than the rest – smell. This has an impact on language (restricted vocabulary), influences our perception and in extension our cognition.

When it comes to studying how the senses are coded in language (literally, metaphorically and in conceptual metaphors), research is still limited and mostly restricted to the senses that play a bigger role in our life – vision and hearing (San Roque et al. 2015; Takada 2008; Sweetser 1991; Danesi 1990). Maybe due to the lack of lexicalization, hardly anything can be found on smell; it has just recently been discovered as a subject of interest (Majid 2015; Majid, Burenhult 2014).

My work investigates – based on COCA as the largest and most representative Corpus of American English – how smell is coded in language and which influence this has on the way we perceive the world. By looking at (conceptual) metaphors as well as literal occurrences a lot can be revealed of the influence on our perception, which in turn reveals underlying conceptual mappings that structure our thinking.

The aim of my work is to uncover the powerful impact sensual conceptual metaphors have on us. It demonstrates why smell is referred to in terms of different material properties (soft, hard, heavy, light) or taste qualities (sweet, bitter), thereby interlinking different senses. This allows us an inside view into the complexity in which we experience the world. We do not seem to understand the senses as single independent entities, but the transitions are fluent. However, combining smell with different senses will lead to a different understanding or perception of the described aspect.

In conclusion, by closely examining recent and actual language use based on a large text compilation, this project sheds light on the neglected issue of smell and its influence on us.

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With a Friendly or Critical Attitude, Categorizing Manner of Speaking Verb Components

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A robust majority of our set of 186 English Manner of Speaking (MoS) verb entries triggers a negative effect on the hearer: 63% only negative plus 23% positive or negative (Vergaro et al. 2014). This would seem to be in-keeping with our need to pay close attention to possible negative outcomes, or what is known as the negativity bias (Jing-Schmidt 2007, Orians 2014). Clearly the negative Effect on the Hearer is constrained by the Speaker's Intention and the Speaker's Attitude, but how do they correlate with the other Manner components? In previous research we distinguished MoS verb manner components conflated in the roots as: Effect on the Hearer, Speaker's Intention, Speaker's Attitude, Directionality, Persistence, Formality, Pitch, Speed, Rhythm, and Volume, considering specifically the satellite-framed language English (cf. Talmy 1985, 2009). The objective of this study is to model a radial network of the components by analyzing informant MoS verb judgment (for native speaker agreement on MoS components see Sandford 2016), and to verify how the semantic-pragmatic and physical-auditory information interfaces to reveal the category structure. To develop this I selected two opponent groups of MoS verb attitudes: "friendly" and "critical". Each group consists in eleven verbs. I evaluate the verb assessment of ten informants for the set of twenty-two verbs and correlate the ten distinguishing aspects that emerge through Graph Coll (Brezina et al. 2015). My hypothesis is that the verb intention and directionality is central to the prototypical friendly and critical verbs, and the other components fan out as the variation in meaning within the verb groups emerges.

Key words: Categorization, Manner of Speaking, Radial network, Graph coll, English Satellite-framed language, Negativity bias

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The interplay of argument structure, information structure and word order in an Australian language: a construction-based account

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This paper presents a core set of constructions which by their interaction determine the basic clause structure of Jaminjung, an Australian language from the Mirndi family. Data come from both naturalistic texts and elicited materials, all recorded and annotated by the author. As a discourse-configurational language, Jaminjung constituent order is not determined by argument roles but by information structure, which can be described as a set of constructions with the syntacto-pragmatic functions of e.g. broad focus, argument focus, and left- and right-edge topic, and the formal correlates of linear position and prosodic contours (Simard, 2010; Schultze-Berndt & Simard, 2012). Crucially, information structure not only has an influence on constituent order but also on case-marking. As in other fluid A ("optional ergative") languages (e.g. McGregor, 2006; Malchukov, 2015), the presence of ergative case is strongly associated with the focal status of A arguments.

Accounting for the distribution of case marking also requires the recognition of case-marking constructions with language-specific meanings, in the sense of Goldberg (1995, 2005). The absolutive (unmarked) case merely signals core argument status irrespective of semantic role, while the ergative case has a constructional meaning of Effector (the entity causally involved in an event; Van Valin & Wilkins, 1996), which accounts for its use with inanimate agents and instruments. These constructional meanings have to be distinguished from those of the cross-referencing subject and object prefixes on the verb which are analysed not as agreement markers but as independent argument structure constructions (Haspelmath, 2013). Construction Grammar presents an ideal framework for representing the overlay of these constructions as well as modelling the structure of spoken language as used in actual discourse.

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The trends and change points in the development of the English verbal morphological constructions

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English lexical verbs are used in five different morphological forms: 1) base form (e.g. *say*, *write*), 2) past tense form (e.g. *said*, *wrote*), 3) *-ing* participle form (e.g. *saying*, *writing*), 4) past participle form (e.g. *said*, *written*), and 5) *-s* form (e.g. *says*, *writes*). Drawing on the syntax-lexicon continuum assumed in construction grammar (Croft 2001; Goldberg 1996, 2006), these five verbal morphological forms can be translated into constituting five morphological constructions (cf. Croft 2001: 17).

This paper investigates the five English verbal morphological constructions. The primary purpose is to detect the trends and the change points in the diachronic change that these constructions underwent from the 1870s to the 2000s. Anomaly detection (outlier detection) methods in data mining are applied here to analyze the sample randomly collected from the *Corpus of Historical American English* (COHA) (Davies 2010). The sample consists of 3,104,000 tokens.

It will be shown that, while the English verbal morphological constructions "as a whole" are on an upward trend in productivity (with three change points), a more microscopic approach which factors in the constructional as well as genre differences in COHA reveals that there is a great variety in the trends and change points across the constructions and the genres. For example, the base form construction in news experienced three level shifts and one temporary change (an upward trend), whereas the *-s* form construction in non-fiction was on a declining trend from the 1950s up to the 2000s with a temporal change and an additive outlier.

The results suggest that in a diachronic study it is crucial to recognize differences in both constructions and genres (registers), because, as illustrated in this paper, the trends and change points are largely attributable to these two factors. Older data would yield more pronounced differences. The reason why the present study investigates relatively recent data from COHA is due to the facts that 1) COHA provides an incomparably large amount of data among other historical corpora, 2) COHA has been lemmatised and tagged for part of speech, which facilitates large-scale automatic data retrieval, 3) COHA is well balanced by genre and sub-genre in each decade, and last but not least, in fact most crucially, 4) the main purpose of this study lies in showing the usefulness of its methodology: the use of statistical analysis to detect changes, and the COHA data serves to achieve this goal.

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Another Piece of the Present Perfect Puzzle – Definite Past Adverbials and the Present Perfect in American English

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This talk will present the results of a corpus study investigating combinations of the Present Perfect (PrP) and a select number of the so-called definite past Adverbials (dpAdv) such as *yesterday*, *two weeks ago* and *last Monday* – terms that rarely co-occur with the PrP and are traditionally considered illicit in this context (cf. e.g. Comrie, 1967; Klein, 1992; Declerck, 2006).

Since these are terms that lexicalize temporal concepts that provide definite past reference, they seem ill-fitted to combine with a form that, in turn, prototypically provides a construal of past events as having relevance at speech time. Previous studies have shown, however, that, while not overly frequent, combinations of the PrP and dpAdvs do occur and are most likely neither errors nor production mistakes (cf. e.g. Rastall, 1999). Their stable presence is noted across time (e.g. Hundt & Smith, 2009) as well as variety (Werner, 2013) and genre (see (1), (2) and (3)).

(1) Barton's pair of Humvees **have been** airlifted into Limbe only **<u>yesterday</u>**. (COCA: 1995: MAG: HarpersMag)
(2) The fun house **has turned out** its lights **<u>several hours ago</u>** and will not reopen until noon. (COCA: 1992: FIC: VirginiaQRev)
(3) You've seen what Speaker Boehner **has done** <u>last night</u>. (COCA: 2011: SPOK: ABC ThisWeek)

The present study explores what factors can override the often cited constraint on the PrP called "the present perfect puzzle" (Klein, 1992) and license this combination of the PrP with lexical items that go against its selectional tendencies. Taking into account profiling relationships, extension effects and perspective, as well as priming, incremental language production, and co-textual factors, an analysis is proposed that attempts to resolve the apparent clash in the event construal when PrP and dpAdvs co-occur.

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"I've Got a Feeling": Semantic processing and Categorisation of Emotion Words in ASD

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Individuals with autism spectrum disorders (ASD) often experience difficulties processing emotions (e.g. Ashwin et al., 2006). Around 50% of the ASD population are believed to have alexithymia (Lombardo et al., 2007), which refers to a difficulty using appropriate language to express and describe own or other's feelings. Thus, emotion processing difficulties in ASD may come about due to atypical processing of words semantically related to emotions. To test this, 20 high functioning adults with ASD and 20 age and IQ matched controls were asked to complete two standard emotion perception tasks: matching emotion words to emotion labels and matching them to universal expressions of emotions; as well as provide semantic judgment of paired emotion word. Results revealed a high level of similarity between participants with ASD and controls when matching emotion words to labels or faces. However, face matching was more consistent in control than ASD group. Also, considerable group differences were apparent in their semantic judgment of paired emotion words.

This presentation will provide insight into difficulties with emotion recognition and understanding of emotions in ASD and how these might be related to semantic processing/categorisation of emotion words. We will specifically outline how performance on standard emotion perception tasks might map on to atypical categorisation and understanding of emotion words in ASD.

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Metaphors in International Data Privacy Law: Schrems and Safe Harbor
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As a method of analysis, metaphor research in law is thin at best. Legal analysis that does incorporate cognitive linguistics (in particular metaphor) usually falls short for a number of reasons. Some focus on whether judges make good linguists (Hobbs 2012, Solan 2010), on one specific metaphor (Tsai 2004, Parker 2012, Thornburg 2006), on general metaphors of a specific legal regime (Berger 2006, Henkin 2007, Rose 2002), or on metaphors of law in general (Winter 2001, Turner 2003, McCubbins and Turner 2013). What many, if not all, of these approaches lack is first, a cohesive method of identifying a metaphor and explaining its choice. More often than not, metaphors are chosen without an analysis of if it is even a meaningful metaphor in the text. This paper utilizes computer aided coding methodology developed by Michael Kimmel (Kimmel 2014) to explore the use of metaphor to build conceptual structure concerning data control in EU law, primarily focusing on the recent Safe Harbor case in the European Court of Justice. The goal is to answer: one, generally, how can metaphor analysis, when performed in a rigorous way, help understand the building of categories and concepts in law, and two, how this applies to the distinction between public and private information, data controllers vs. data processors, the legal concept of digital information, and the framework of legal interpretation and reasoning. The scaffolding on which these concepts are built are taken apart to reveal their underlying, non-abstract components. Far from the legal method of tests of necessity and sufficiency, this paper argues for a supplement to the traditional method of legal category building and holds out an extended arm to the world of cognitive linguists from the conceptual mores that is law.

Keywords: Analogy, Cognitive Metaphor Theory, Metaphor and Law, Metaphor and Space, Conceptual transfer, Force dynamics

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Talking about objects in motion: Investigating the meaning of *in front of*, *behind*, *leading* and *following*.

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Motion has been shown to generate a front-back axis in objects that people can use to talk about object location: e.g., the red billiard ball is following the white billiard ball. However, we have only recently become to understand some of the factors that generate a front-back axis during motion (Coventry & Frias-Lindquist, 2005). We investigated the relative contribution of three factors: Translation or the co-ordinate changes of objects through space, Intrinsic Motion or the motion of object parts (e.g., turning wheels), and Motion Control or the co-ordinate changes being self-governed or externally imposed (Coventry & Garrod, 2004). Participants were asked to indicate the acceptability of the prepositions *in front of* and *behind*, and the verbs *leading* and *following*, while watching scenes of two moving objects through a virtual reality headset. Acceptability scores and reaction times showed that translation contributed most, followed by intrinsic motion and motion control in the generation of a front-back axis. Verbs appeared to be more sensitive to motion control than prepositions. We explain the results in terms of inference generating a weaker but quicker front-back axis when there is a lack of translation, and with motion control having a larger role in end-point assignment than front-back axis generation.

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Frame Blending in Multimodal Referring Expressions

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One of the key concepts of Construction Grammar is that a construction itself bears a semantic frame while its constituent parts bear their own semantic frames. These frames, which include the sensorimotor simulation they evoke, blend together in order to yield the meaning of an instantiated construction. This paper presents referring expressions as multimodal constructions, in which the semantic frame of a referential gesture blends with the semantic frame of a verbal construction. Frame blending can be seen clearly in the interplay between representational gestures and the speech stimulus. By appealing to the visual and motoric simulation of the concept described, the information provided through the visual channel blends with the information presented through the acoustic channel to construct a thorough simulation of the referent. The use of pointing gestures in referring expressions, however, requires a more detailed analysis of the semantic domains associated with pointing. While pointing gestures may appeal to visual simulation, as in tracing paths and designating the spatial orientation of referents, they also rely on iconic, metonymic, and metaphorical strategies for assigning reference points. Drawing from data of various types of pointing gestures, this paper posits that the semantic schema of the pointing construction is directed attention, wherein the possible frames associated with the target are activated according to their relevance in the verbal component of the construction.

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The expression of modality in advanced learner varieties
- A cognitive linguistics corpus study
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The purpose of this study is to investigate the (syntactic) usage of English modal verbs to express epistemic modality in the academic writing of advanced L2-learners.

Modal verbs are the most prominent means to express epistemic modality, as they allow writers to qualify propositions and evaluate claims. However, due to their rich semantic complexity and polysemous relationship modal verbs have been considered as particularly difficult to acquire and apply even for advanced learners (Tyler 2008).

By adopting a usage-based approach it will be investigated whether or not L2- learners also show instances of construction-based learning as outlined by Goldberg for the case of first language acquisition (Goldberg 2006).

In terms of a semantic analysis of a particular modal Sweetser's (1990) cognitive linguistic approach to modal verbs as well as Talmy's (1988) force dynamics model will also serve as a basis for interpreting these constructions, as they provide a systematic conceptual background to understanding the inherent complex semantics of modal verbs.

To gain relevant data, a qualitative and quantitative corpus analysis based on the *Corpus of Academic Learner English* (CALE), a specialised corpus of academic learner writing, is carried out.

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Simultaneous Learning of Constructions and Procedural Semantics in Autonomous Robots

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Spatial language is largely culture-specific (Levinson, 2003). This not only true for the lexicon and grammar (Svorou, 1994) but also for the conceptual structures a language affords (Levinson, 2003). To autonomously learn a spatial language, therefore, requires not only to learn the expression of spatial relations but also to acquire the underlying conceptual repertoire. The talk reports on recently developed models of grounded incremental language learning in autonomous robots. The learner robot learns to produce and interpret English locative spatial language in guided interactions with a tutor robot. The model shows how a learner can pick up form-meaning mappings (constructions) but also learn the conceptual inventory underlying English spatial language.

The model follows ideas in usage-based language acquisition (Lieven et al, 2003). This approach stresses that (1) the basis of child language acquisition is the utterance as an expression of communicative intentions; (2) children's earliest utterances are concrete in the sense that they are instantiations of item-based schemas or constructions; (3) abstractions result from children generalizing across variation they observe at particular "slots" in otherwise same utterances; and (4) children create novel utterances for themselves based on observed examples and similarity to such examples. The talk will detail exactly how these different propositions can be implemented in a Computational Construction Grammar framework.

An important aspect of our approach is that besides the learner the models also include the tutor as an agent. This allows us to quantitatively study the effect of tutoring strategies on the dynamics of language learning. Initial results show that tutoring strategies can speed up the learning process by constraining the complexity of the environment as well as the complexity of linguistic utterances.

The talk extends previous work reported in Spranger, 2015 and Spranger & Steels, 2015.

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Early Gesture Learning, Ontogenetic Ritualization and Construction Grammar

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Pointing is an important gestural symbol that facilitates rapid learning of vocabulary and early grammar in children. One of the key processes hypothesized to account for the acquisition of pointing gestures is Ontogenetic Ritualization (OR). The main idea of OR is that gestures emerge from bodily actions through repeated interactions of mother and child. While OR has been studied widely in non-human and human primates (Tomasello & Call, 2008), there are few computational models of ontogenetic ritualization (Hafner & Schillaci, 2011; Arbib et al 2014; Sheldon & Lee, 2010). Our work incorporates a model of the emergence of gestures in a computational construction grammar framework that can also handle other aspects of language development such as vocabulary and grammar learning (Spranger & Steels, 2014).

The talk introduces the emergence of pointing in a learner robot in interactions with a tutor robot in 4 stages. 1) The learner learns how to grasp or touch an object. 2) The learner fails to grasp an object because it is too distant. There is a tutor present who recognizes the intent of the learner and moves the object to him, which allows the learner to grasp the object. At this point the learner learns a new sensorimotor plan that includes information about the tutor. 3) The learner schematizes the motor programs for grasping into a more and more pointing like action for reaching the same goal. 4) The learner also schematizes the meaning of the gesture and learns that he can attract the tutor's attention using the same gesture.

In the poster, we will focus on the representations of meaning, form and the connection between them - necessary in our experiments. We will establish a link between recent work on (computational models of) construction learning (Spranger, 2015; Spranger & Steels, 2015) and the mechanisms necessary in early gesture acquisition.

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Ad hoc concepts or conceptual parameters in the course of time?
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This presentation will try to solve a putative contradiction: the stability of concepts and their presupposed flexibility in usage (see Casasanto & Lupyan 2015). I will show that stability is not an illusion but rather a definitory problem. Concepts in themselves are global, yet while transferring these mental images into language, originally stable concepts – due to the linearity of language – need to be broken down into describable entities. A synchronic and diachronic analysis of more than 800 words from various Romance Languages revealed that it is exactly the breaking down of a concept into individual (at the same time universal) slices that allows for the diachronic flexibility of the concept, given the fact that whenever the concept is linguistically activated, the speaker has a choice of anchoring points (i.e., parameters). The latter may vary over time. In the beginning, prototypical parameters of the concept are favored, but with time the salience of these entities (due to frequency patterns and loss of expressivity) can alter. In sum total, the gap between the assumed stability of concepts on the one hand, and their flexibility in usage on the other, can be bridged by presuming that our knowledge is not organized in stable concepts but rather in flexible parameters which, in mutual interrelation, define and prime said concepts (see Barsalou, Wilson, and Havenkamp 2010; Spivey 2007). In order to illustrate this idea, my talk will focus on the semantic mappings between the conceptual parameters in the course of time, on the existing restrictions in the actual use of these concepts, as well as on the typological differences between related and unrelated languages. In conclusion, I will raise the question whether it is more adequate to speak of an ad hoc focalization on a particular conceptual parameter instead of ad hoc concepts.

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Genre as a factor explaining variation in viewpoint marking constructions:
the case of the Dutch Simple Present tense

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Linguistic expressions of viewpoint have extensively been analyzed across disciplines of language study. A common assumption has been that forms and functions of viewpoint-indexing constructions are invariable across discourse contexts. In this paper I question this assumption by reporting a corpus analysis of the meanings and uses of the Dutch Simple Present tense in a variety of narrative discourse genres.

Across languages, Simple Present used in narrative discourse has been associated with evoking a subjective narrator's or character's perspective (Fludernik 2003; Langacker 2011). This pattern is commonly known as Historical Present use (Yesterday I was quietly sitting home. Suddenly I hear footsteps over my head!). Discussing corpus data, I argue that common accounts of formal and conceptual characteristics of HP in fact reflect an over-generalization based on the situational characteristics of prototypical narrative genres such as literary fiction and personal anecdotes. I suggest that instead, availability of HP interpretation in a given narrative context as well as formal aspects of additional linguistic marking (or absence thereof) systematically vary in accordance with the varying situational characteristics associated with specific narrative (sub-)genres. The conventional temporal-deictic setting of a given genre and its degree of conventional association with subjective narrator's or story character's viewpoint seem to be specifically relevant here.

Findings like these suggest that a complete account of the linguistic expression of viewpoint should include an account of how discourse production and interpretation are mediated by language users' awareness of genre factors. I discuss how the idea of genre conventions as distinct 'constraints on interpretation' of perspective-indexing linguistic constructions fits in with an evolutionary linguistic (Croft 2011) and more general usage-based perspectives on language (Bybee & Hopper 2001), which have suggested that linguistic conventions in general are fundamentally rooted in concrete human experience with language use, including conditions of use associated with discourse genres.

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Metaphorical Motions of Event and Time

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It is commonly assumed that there are three types of metaphors when concepts of Time are structured through concepts of Space: Moving time metaphor, Moving ego metaphor, and Time RP metaphor. I suggest that the Moving time metaphor has two sub metaphors in Japanese: Moving Event metaphor (<Event>) and Time course metaphor (<Time course>).

(1) a. *nagai jikan-ga nagare-ta.*   "Long time has passed."<Time course>
long time-Nom flow-pst
b. **nagai jikan-ga yatte-ki-ta.*
long time-Nom come-pst
(2) a. **kurisumasu-ga nagare-ta.*   <Event>
Cristmas-Nom flow-pst
b. *kurisumasu-ga yatte-ki-ta.*   "Christmas comes."
Cristmas-Nom come-pst
(3) **nagai jikan-ga nagarete-ki-ta.*   <Time course>
Long time-Nom flow-come-pst

A temporal expression *nagai jikan* "long time" and *kurisumasu* "Christmas" that are instances of <Time course> and <Event> respectively, co-occur with motion verbs *nagare-ta* "flowed" and *yatteki-ta* "came" in (1a,b) and (2a,b). Although these examples have been analyzed as instances of Moving time metaphor, (1a,b) and (2a,b) show opposite acceptabilities. In this paper, I propose that the experiencer of Time cannot be the deictic center in the <Time course>. Example (3) supports this hypothesis where the verb *nagare-ta* "flowed'" is marked as *ki-ta* "came" although the verb *nagare-ta* itself can be used in the <Time course> metaphor in (1a). In addition, I conducted a corpus-based study to show that <Time course> and <Event> have completely different verbal sets.

From these observations, in this paper I suggest that 1) we must distinguish <Time course> from <Event> in a Moving time metaphor and that 2) the experiencer of time cannot be the deictic center of metaphorical motion in the Time course metaphor. These suggestions imply that <Time course> combines the properties of the Moving time metaphor and the Time RP metaphor.

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Breaking the terms of conditional promises and threats
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Promises and threats play a central role in human communication, from family life to negotiation and politics. They are often formulated as 'if *p, q*' conditionals:

(1) If you do the dishes, I'll let you go out.
(2) If you lie to me again, I won't buy you this toy.

Drawing on Searle (1971), Beller (2002; et al. 2005, 2009) argues that there is a motivational level difference between conditional promises and threats: with promises, *p* is a desired behaviour for which there is a reward (*q*), whereas with threats, *p* is an undesired behaviour for which there is a punishment (*q*). Thus with promises the hearer is motivated to make *p* true, whereas with threats the hearer is motivated to make *p* false. This difference at the motivational level gives rise to the following difference in deontic commitments. What the speaker of a conditional promise is obliged and permitted to do in a situation where the hearer cooperated and where the hearer didn't cooperate is licensed by the logic of Material Implication ($\sim(p \& \sim q)$). However, the deontic commitments of a conditional threatener are not licensed by the logic of Material Implication.

This paper reports on a replication study into the predicted promise versus threat asymmetry. The original study has been carried out in German (Beller 2002; et al. 2005), Tongan (Beller & Bender 2004) and Mandarin Chinese (Beller et al. 2009). Thus far, it has not been done on English conditional inducements. Our findings are in line with the predictions of Beller's deontic commitment hypothesis; however, we argue that the findings do not indicate that the ($\sim(p \& \sim q)$) constraint is not operative in the conditional threats used in the study. We discuss our results in relation to the debate about the semantics of conditional sentences (e.g. Edgington 1995; Noh 2000; Johnson-Laird et al. 2002, 2009; Oaksford & Chater 2003; Rescher 2007). We also report on the differences found in the preferred formulations of conditional threats and in emotional reactions to conditional inducements and consider potential methodological issues related to the study.

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Signs of Perception in Japanese Sign Language:
Two Directions of Fictive Motion

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Sign language, as natural language using visuo-spatial modality, shares many aspects with spoken language, although the use of space to express spatial events is more iconic than it is in spoken language. This paper shows that perception expressions in Japanese Sign Language are highly motivated by our embodiment of perception organs. Three kinds of fictive motion of perception have been reported in spoken languages, namely the visual path from the experiencer of the perception as a subject to the perceived entity, the emanation of stimuli, and the motion of stimuli from the source of the stimuli to the experiencer (Talmy 1996; Huumo 2010). Meir (2002: 414) suggested that verb agreement in signed language is "thematically, rather than syntactically determined, as verb agrees its source and goal arguments." In this paper, I examined the directions of perception expressions focusing on verb agreements and found the canonical directions of the hand movement are motivated by the functions of the sensory organs.

The lexical items of each sensory modality are articulated around the perceptual organs such as the eyes, ears, nose, and tongue. Firstly, visual perception verbs show a strong tendency to choose the experiencer as a subject expressed on the signer's body. The direction of the fictive motion starts from the experiencer and moves to the perceived entity. Therefore, the goal of the movement is the eyes. At the same time, we found a verb showing the opposite direction. In addition, there is an agreement verb separate from the experiencer's body as a subject solely in the domain of vision. Secondly, auditory perception verbs show the opposite direction; the goal of the motion is the signer's ear. Thirdly, olfaction verbs show both the emanation from the source of stimuli and the directed motion to the signer's nose. The emanation is not necessarily directed to the signer's nose. In addition, some of the perception verbs use same handshapes, but it is not likely that we can decompose them into semantic features and find commonality in their meanings. Therefore, the verbs are motivated by and composed in the perceptual domains separately.

In conclusion, the embodiment of each sensory modality motivates the direction of the fictive motion of perception verbs. Moreover, it is suggested that each sensory modality has lexical items that use various handshapes independently and are motivated by the characteristics of the sensory modalities.

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Remodelling the semantic network of *out*

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This paper addresses the semantics of *out* within The Theory of Lexical Concepts and Cognitive Models (LCCM Theory) developed by Evans (2009).

O*ut* is widely known to be associated with various sorts of distinct senses to exhibit polysemy. To illustrate, let us consider the following examples:

(1) a. She went out   b. This magazine comes out once a week
     c. The light went out   d. The custom is dying out   (Lindner 1981)

Although all the examples include *out*, each instance indicates a distinct sense. In other words, each use refers to 'physically outward orientation' in (1a), 'social prominence' in (1b), 'imperceptibility' in (1c), and 'non-existence' in (1d). Then, how are these distinct senses derived and stored in the mind?

Since the first successful attempt to demonstrate that spatial particles are meaningful on their own, many scholars have paid much attention to their semantic characterizations (e.g., Brugman 1981; Lindner 1981; Herskovits 1986; Lakoff 1987; Vandeloise 1991; Kreitzer 1997; Cuyckens 1999; Tyler and Evans 2003; Evans 2009, 2010). While each study attempts to offer a better characterization for the semantics of spatial particles, there has been no consensus as to how the distinct senses associated with the same spatial particle are derived and stored in the mind.

Based on Evans (2009, 2010), this paper assumes that a wide variety of distinct senses associated with *out* are basically derived from various sorts of daily experiences involving physically outward orientation directly or indirectly, or that when acquired via linguistic resources, they are incorporated into the existent semantic network through the relevant daily experiences involving physically outward orientation directly or indirectly. This assumption is substantiated by the historical fact that non-physical senses as in (1b) and (1d) tend to emerge after basic physical senses are fully established. Furthermore, this assumption can be validated by the notion of experiential correlation (Grady 1997). Put another way, a consequence of humans interacting with a wide variety of daily experiences gives rise to the implicatures that have little or nothing to do with outward orientation which are in turn semantisized as novel senses.

Remodelling the semantic network of *out* within LCCM Theory might lead to offering a more psychologically realistic characterization for the relationships among the distinct senses associated with the polysemous items such as spatial particles.

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Cognition as Compression: A compression-based framework for linguistic analysis

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Compression has been proposed as a unifying principle in cognitive science and cognition (Chater and Vitányi, 2003; Wolff, 2003). It has also been argued that elimination of redundancy is central to pattern recognition in humans (Attneave, 1954; Barlow, 1959). Therefore, the application of a text compression algorithm to remove redundancy in natural language text should provide an effective means for analysing language and linguistic phenomena. In this light, this talk will demonstrate how compression code length (as measured by the Prediction by Partial Matching text compression algorithm PPM) can be used as the basis for a general framework for linguistic analysis. The framework implements different types of compression algorithms – those based on characters, words and parts of speech (using tags). Experiments with English language tagsets show that it is possible to compress words + tags down to a size less than when compressing just the characters or words by themselves (Teahan, 1998) thereby supporting the linguistic validity of the tagsets from an information compression perspective. Further experiments show that compressing co-translated text in different languages (Chinese/English, Arabic/English, Welsh/English) results in similar compression code lengths, therefore providing a useful method for alignment for machine translation purposes (Alkahtani et al., 2015; Liu and Teahan, 2014). Comparing compression code lengths is also useful for categorisation – for example, for authorship analysis (including gender), genre, topic (Teahan and Harper, 2001) and emotion categorisation (such as detecting whether the author of the text is depressed or suicidal), or whether the author is writing as a second language.

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Cognitive Approach to Lexicography on the Basis of Japanese Temporal and Spatial Lexicon

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Over the last several decades the necessity of the linguistic basis for lexicography has been widely acknowledged by both linguists and lexicographers, e.g., Atkins, Kegl and Levin (1988), de Blois (2004), Adamska (2008), Ostermann (2012, 2015). In particular, the cognitive linguistics approach is actively utilized in attempt to make dictionaries more feasible and efficient especially for second language learners. This paper offers an integrated approach including Cognitive Linguistics, Cognitive Lexicography, and Language World View research.

The main focus of this paper is a discussion of the cognitive definitions (CogD) of Japanese temporal and spatial lexical items formulated on the basis of the first stage of an ongoing free word association experiment conducted in Tokyo in 2015 with 85 Japanese native speaking participants of two different age groups, one in their 20s and one from their 50s to 70s.

The association responses to 50 time and space related stimuli served as the basis for CogD of each stimulus. The set of stimuli was selected to represent a variety of semantic relations and etymologies. The CogD, formulated following the method proposed by Popova and Sternin (2007), were utilized as the material for comparison with the traditional definitions (TD) to evaluate if an association experiment is a reliable tool for formulating CogD.

The findings suggest that free word association experiments accompanied with corpora could be used as tools for building CogD. The results of the analysis showed that concrete words, with clear real life equivalents, have only minor differences between their CogD and TD, though the CogD proved to be efficient in disambiguation of synonyms by revealing the differentiating nuances of meanings not shown in the TD.   With highly abstract and polysemous stimuli, differences in the balance of definitions and the number of meanings are observed, however, the structure of CogD highlights the core and the most actively used meanings of the stimulus in question.

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Linear vs hierarchical, two accounts of premodification in the *of*-binominal noun phrase

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This talk will present, based on a corpus study of the premodification patterns of *of*-binominals, a comparison between linear, predominantly semantic zone-based approaches to English premodification ordering (e.g. Dixon, 1982; Feist, 2012) to the hierarchical approach in Functional Discourse Grammar (FDG; Hengeveld & Mackenzie, 2008).

Premodification patterns play a central role in the categorization of *of*-binominals in general, and particularly, in the grammaticalization of the evaluative binominal noun phrase (EBNP; *a beast of a man*) into an evaluative modifier (EM; *a beast of a Hollywood year*), as the first noun integrates itself into the pre-existing premodification patterns (ten Wolde & Keizer, to appear). Furthermore, *of*-binominals display irregular premodification patterns such as in the case of the EBNP where premodification in front of the first noun can be selected by the second, e.g. *a **husbandless** spiritless frail little mutt of a girl* (COHA; e.g. Aarts, 1998). This paper examines to what extent the two different approaches to premodification can capture and account for these developments.

For the zone-based approach, the project has adopted Ghesquière's (2014) construction-based, functional-cognitive model of the NP, which incorporates both subjectivity and inter-subjectivity dimensions as well as captures scopal and modificaitonal relations. This model is compared to FDG's function-to-form approach to premodification, where the linear ordering of modifiers (as well as grammatical elements) at the Morphosyntactic Level is determined by the function of these elements at the pragmatic and semantic levels in a top-down, outside-in manner (Keizer, 2015, pp. 218-231).

The paper comprises two parts: First, based on an empirical study of data from the *Corpus of Contemporary American English* and the *Corpus of Historical American English*, the development of the premodification distributional patterns of the EBNP, EM and historically related *of*-binominals will be presented. Second, the paper will discuss the theoretical implications of the two approaches when explaining these patterns. As a conclusion, this study suggests that a construction-based approach allows for greater categorical distinctions when examining the various *of*-binominal premodification patterns. In comparison, a FDG account can capture and track the exact changes that take place, and thereby explain, in the context of the grammaticalization of EBNP constructions, the development of these non-canonical patterns.

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Understanding (and teaching) obviation: a Cognitive Linguistics approach

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This research is part of a bigger project that aims to develop pedagogical material for adult learners of the Cree dialect called Moose Cree. Our position is that Cognitive Linguistics offers powerful tools not only to describe, but also to understand linguistic phenomena, and consequently, provides interesting concepts for language teaching. With this in mind, we will show how certain concepts taken from Cognitive Linguistics – such as salience, prototypes and reference points (Langacker, 1993; Culioli, 1982)– seem perfectly adequate to explain a linguistic phenomenon observable in Moose Cree (and, in fact, pervasive in all Algonquian languages), namely, obviation.

Obviation is defined as a grammatical device used to distinguish two third persons: a) the *proximate*, who is the foregrounded participant, and b) the *obviative*, the backgrounded participant (Rhodes, 1990; Dahlstrom, 1991; Drapeau, 2014). The choice of which participant outranks the other is sometimes dictated by syntactic factors, and sometimes the speaker is free to choose, although semantic, syntactic and discursive factors (such as animacy, humanness, agenthood, subject function and topicality) play an important part in picking the proximate participant. What emerges from a broad study of obviation is that such a phenomenon cannot be explained in a uniform way using traditional linguistic concepts pertaining to a certain level of linguistic analysis, because obviation operates at all linguistic levels.

We claim that a unified way of explaining obviation is by treating it as a linguistic manifestation of a cognitive operation involving a reference point and prototypes (Langacker, 1993). We put foward that the proximate is used as a reference point that allows mental access to other participants in domains such as the noun phrase (in possessive constructions), the clause (with transitive verbs), and portions of discourse (through proximate shifts).

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It's raining, isn't it? Children's use of tag questions as a test case for the role of form-function mappings in early language acquisition.

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Tag questions (e.g. *that is a nice dress, isn't it?*) are considered complex utterances as they require adherence to several grammatical rules (auxiliary verb matching, pronoun matching and polarity), and can be used for many different functions (communicative intent) (Kimps et al., 2014). Usage-based approaches to language acquisition suggest that children learn language from the input that they hear, and that this is achieved via several cognitive processes including; categorisation, chunking and the ability to link form and function (Bybee, 2010). The complexity of tag questions relating to their form and meaning makes them an ideal test case to examine how properties of the input relate to children's acquisition of syntactically and pragmatically complex constructions. Although researchers have suggested that children's tag question acquisition may be affected by their complexity in various ways (Weeks, 1992; Richards, 1994), no studies have examined in detail the types of tag questions children hear regularly, or determined whether form-function relationships play an important role. The present study investigated the tag questions produced in spontaneous speech by twelve children (aged 2:10 to 3:6) and their caregivers. Tag questions were coded for polarity, auxiliary verb and pronoun used, and function. Mixed effects models revealed that the frequency of tag questions produced by the children was predicted by the frequency of tag questions with a particular polarity, and the frequency that a particular auxiliary verb and pronoun occurred with a particular polarity and function in the caregiver's speech, whereas the frequencies of some individual formal properties in the caregiver's tag questions (such as frequency of auxiliary verb and pronoun, and the frequency of the function alone) did not predict the children's use of tags. This suggests that children acquire tag questions in a piecemeal fashion, starting out with high frequency form-function mappings modelled in the input.

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**How contextual pressures shape grammar: The
emergence of overspecification in an Iterated Learning setup**

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In line with recent research showing that situational context can shape language structure (Winters, Kirby & Smith 2015), this paper explores the hypothesis that the obligatory use of overspecific semantic markers can emerge in response to contextual pressures. 205 volunteers took part in an online Iterated Learning study (Kirby, Cornish & Smith 2008). They were trained on an artificial langugе and were then asked to use that language to point out objects to an alien. The output of each participant in the communication phase was used as input for the next participant's learning phase up to the 5th participant.

The initial language consisted of four different words denoting objects (e.g. *meeb* 'ball') as well as two markers denoting colour (*pu* 'blue', *li* 'yellow'). In the initial language, these markers were only used when an object had to be distinguished from the same type of object in a different colour (e.g. a blue cup and a yellow cup). This distinction was relevant in half of the 32 randomized trials. The other 16 trials were different across the two experimental conditions: In the distractor condition, these 16 trials consisted of pictures showing two items, but different types (e.g. a ball and a pen). In the control condition, by contrast, pictures displaying only one single item were shown. While overspecific markers come to be used in both conditions, they become prevalent, and ultimately obligatory, much faster in the distractor condition: In this condition, overspecification reduces the speaker's cognitive effort of disambiguating between same-type and different-type contexts.

Importantly, this development might be seen as a small-scale case of grammaticalisation: "colour" becomes a grammatical category in its own right, which has to be encoded even if irrelevant in the given context. Thus, our results lend further support to the hypothesis that contextual factors significantly influence language structure.

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The Effects of Exposure to Chinese Numeral Classifiers on the Categorization of Objects by Native-English Speakers

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The current research investigated whether exposure to numeral classifiers (NCs) in Mandarin Chinese impacts non-classifier language speakers' object categorization. As classifier selection depends on the physical attributes of the associated noun, NCs are ideally suited to exploring the link between language and semantic categorization (e.g., Mandarin *zhi* is used for long and rigid objects and *tiao* for long and flexible objects). Prior research on the role of NCs in object categorization (Sera, Johnson & Kuo, 2013 among others), compared speakers of classifier languages (e.g., Chinese) and non-classifier languages (e.g., English) but did not address the causal relationship between exposure to NCs and object categorization.

We sought to address this gap through a training study comparing object categorization among two Native-English speaking groups (experimental versus control). We hypothesized that the experimental group, which was exposed to Mandarin NCs, would demonstrate a bias towards grouping together objects sharing the same classifier. Native-English speaking undergraduate students (N=99) were randomly assigned to the experimental or the control group. The experimental Group (but not the control group) was systematically exposed to NCs using a visual, auditory and haptic integration module. Two matching tasks (Forced-Choice and Go/No-Go) were used to evaluate the participants' object categorization preferences.

Independent t-test results for the Forced-Choice task showed that the experimental group (*M*=22.84, *SD*=3.39) selected the classifier-based object significantly more frequently than the control group (*M*=16.20, *SD*=3.70), *t* (97) = 9.29, *p* < .01. In the Go/No-go task, a mixed-design ANOVA showed a significant interaction between Group (between-subjects factor) and trial type (within-subjects factor), Wilks Lambda = .913, F (1, 97) = 9.218, p =.003. There was a significant main-effect of Group, *F* (1, 97) =141.51, *p* < .001. The experimental group produced significantly more responses based on classifier-based selection than the control group in both Go and No-Go trials. The experimental group's bias towards grouping together classifier-sharing objects in both tasks supported our hypothesis that exposure to NCs influences non-classifier language speakers' object categorization. The implications of the findings for cognitive approaches to categorization and the link between linguistic and conceptual structure will be discussed.

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Setting subjects, causal subjects of the complex transitive verb *see*

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This study is an attempt to clarify the nonsentient subject of the perception verb *see*, which takes complex transitive complementation of the bare infinitive, *-ing* participle, *-ed* participle, *to*-infinitive (Quirk et al., 1985), or *that*-clauses. This is motivated by the question why causative verbs, with subjects instigating events, and perception verbs, with no force transmission from the subject, share similar types of complementation. However, their contrast is reduced in the physical causation which represents the interaction of two nonvolitional, nonsentient entities (Croft, 1991), e.g., *Diversification in the 1950s and 1960s saw Cornwall move into a number of other product areas* (BNC K9B 938). On the other hand, the perception verb *see* exemplifies the setting-subject construction (Langacker, 1991), e.g., *His younger days saw him helping with cubs and scouts* (BNC K1R 1558).

The nonsentient subjects of *see* (excluding institutions) were collected from the *British National Corpus*. Their object complements were found to be bare infinitives (49.3%), *-ing* participles (30.3%), *-ed* participles (19.2%), *to*-infinitives (0.6%), and *that*-clauses (0.6%). These were further classified into the semantic categories of time (30.5%), events (games, battles) (25.9%), causes (21.3%), plots (plans, works) (17.6%), and places (4.8%). The most typical domain of their usage was leisure (31.9%) including various sports.

The causal subjects such as sports techniques and business strategies bring about results which are beyond the control of the participants. The setting subjects of time, places, and events defocus participants and induce a generalized viewing relationship (Langacker, 2006). Plots also can serve as setting subjects which induce a general experiencer who follows the content.

The frequency distributions of the object complements provide corpus evidence for the effective/epistemic opposition proposed in Langacker (2010), in which the complements of the bare infinitive, *-ing*, *to*-infinitive, and finite correspond with a global progression from physical to mental relationships. Setting subjects and causal subjects are used at the perceptual level and rarely at the mental level.

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Incremental processing of adjective-noun phrases in three-year-olds

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This paper pursues the question whether toddlers are able to process adjective-noun phrases such as *tall tower* incrementally and to predict the noun on the basis of the adjective meaning, the way adults commonly do (Sedivy et al., 1999).

Usage-based studies of adjective acquisition indicate that children are conservative language users; they keep track of adjective-noun pairings in the input and reproduce these pairs with the appropriate communicative function. Once children have stored a critical mass of adjective-noun pairs, they start generalizing over the stored instances (Carey, 1978; Tribushinina, 2008, 2013). Taking these findings from production studies into account, it can be hypothesized that toddlers might use the adjective to predict which noun is most likely to be combined with it, based on statistical regularities in the input. This prediction was tested in an eye-tracking experiment by means of the Visual World Paradigm.

The participants were 21 monolingual Dutch-speaking children (mean age: 38 months, range: 36-41 months) and 21 Dutch-speaking adults (mean age: 23.1 years, range: 20-28 years). The participants saw two pictures (e.g. a candle and a tower) and heard adjective-noun combinations, where the adjective was either informative (e.g. 'tall') or uninformative (e.g. 'best') about the head-noun. When the adjective was uninformative (i.e. not specifically associated with one of the nouns), the proportion of looks at the target picture increased only on hearing the noun. When the adjective was informative, however, the proportion of looks at the target increased already upon hearing the adjective. The children were as fast as adults in predicting the upcoming referent. We conclude that toddlers process adjective-noun combinations incrementally and predict the head-noun on the basis of an adjective. In other words, they know which nouns are more likely to be combined with specific adjectives and use this information in online language processing.

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A Cognitive Linguistics, usage-based approach to teaching Spanish por and para

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The standard, university-level L2 approach to teaching the multiple uses of Spanish por and para primarily relies on memorizing long, arbitrary lists of uses presented in intensive one or two day sessions. Pinto and Rex (2006) raised questions about the efficacy of the approach when they found that, over four years of university instruction, in which por/para instruction was recycled several times, students generally improved only slightly. One exception to the traditional approach is reported in Lam (2009), in which university-level students received a Cognitive Linguistic (CL) treatment. In a two day intervention study, these students improved significantly in confidence and accuracy relative to a group who received traditional instruction. However, the instruction still followed the intensive 2 day intervention model and presented a limited number of uses.

Our study tested the usefulness of an expanded CL approach to the teaching of por and para, by broadening the analysis of the prepositions, as well as manipulating the pedagogical presentation. The materials were based on Curry's (2010) more elaborate, CL semantic networks for por and para. Key to the new materials were the notions that the multiple meanings for each preposition formed a systematically related network, organized around a central spatial sense, and all senses could be represented through accessible diagrams. The participants were two classes of third-semester university Spanish learners. Following a more usage-based framework which emphasizes gradual learning, new senses were presented a few at a time, in semantically connected mini-clusters, throughout the semester. One class received explicit CL-based instruction emphasizing how the extended senses related to the network; the other covered the same mini-clusters but received no explicit CL explanation. The results revealed that both groups showed significant gains with large effect sizes on the immediate and delayed posttests. These results support a CL, usage-based approach to L2 instruction.

The Mimetic Expressions for Rice Crackers:
Physically Perceived and Imagined Hardness

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Mimetics are bodily grounded expressions that can vividly describe physical experiences (Hamano, 1998). In this study, we combined cognitive linguistics and food science to investigate the difference between the physically perceived and imagined textures of foods by analyzing mimetic expressions used to describe them. In two experiments, we asked Japanese speakers to verbally describe different levels of rice cracker hardness. In food science, hardness is regarded as the most important factor to describe rice crackers (Takahashi et al., 2009). The results show that imagined hardness and physically perceived hardness are typically expressed by different mimetics. Most importantly, the imagined and physical experiences of eating evoked prototypes with different hardness. Please note that the translation of each mimetic word below is tentative. See Kakei et al. (1996) for a full description in English.

In Experiment 1, 52 participants (18-22 years old) were asked to imagine several kinds of snacks, including *osenbei* ("rice crackers"), and write mimetics that describe the foods' textures. The most frequent mimetic for rice crackers was *baribari* ("hard"). Two mimetics, *paripari* and *sakusaku* (which both mean "crispy"), were associated mainly with potato chips and cookies respectively.

In Experiment 2, we prepared seven different rice crackers with different "breaking loads," which were measured by a rigidly controlled food analyzer device. Eighty-five Japanese speakers (22-24 years old) ate and verbally described the snacks' hardness. We obtained 2,644 tokens and 317 types of mimetics from the data. A subsequent frequency analysis revealed three categories of mimetics. The first category included two out of seven rice crackers, which were the hardest (breaking load 72.9N-83.5N), mainly expressed by the mimetic *baribari* ("hard"). The second included four types, which were middle in hardness (17.5N-49.3N), described as *sakusaku* or *paripari*. The last one included a soft type (0.8N), expressed by *funyafunya* ("soft") or *mochimochi* ("soft and sticky"). In addition, we checked the participants' familiarity (knowledge and experience) with the rice crackers. The rice crackers in the second group were the most typical. That is, while the texture of typical rice crackers in Experiment 1 was *baribari*, it was *paripari* and *sakusaku* in Experiment 2. Our results suggest that this divergence may be due to the interplay between socio-cultural knowledge and physical experience.

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The acquisition of copular constructions in child English.
A corpus-based analysis of copular verb omission.

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A key question in language acquisition research concerns the role of input in children's development of language. This study examines the role of input in the acquisition of one particular construction, namely copula *be* in child English. The particular focus of the study is on the phenomenon of copula omission (cf. (1) and (2)) as an index of children's productivity of copula *be* across different constructions.

(1) That (is) mine.
(2) Mommy (is) (a) girl.

Copula omission has been argued to undermine input-driven accounts of children's language development, in that it "argues against the view that children simply repeat what they hear" (Becker, 2000: 5-6). Recent studies, however, found that there is considerable variation in the linguistic contexts of copula omission: children's use of the copula is argued to reflect the frequency of item-specific sentential subjects in copular constructions (Wilson, 2003). While those studies provide evidence that copulas may be acquired from usage, no studies, as of yet, would consider the patterns of production in the input.

To investigate whether and how copula omission is related to the use of copular constructions in child-directed speech, this study examines production patterns in the data from both child-directed and children's speech (ages 2;1 to 3;3). The analysis suggests that children acquire their understanding of copular constructions and copular *be* from use: children prove to be considerably better at producing the copula in combination with elements that frequently occur both in their own and their mother's speech. It is suggested that, at the earliest stages of development, subject token-frequency, in particular, is an important facilitator of the acquisition of copular grammar in English.

In addition to subject frequency, the analysis shows that the variation of the form of the copular verb itself is also conducive to the development of the copular construction. More specifically, frequent use of a non-contracted (i.e. morphophonologically independent) copula (e.g. "am", "is", "are") both in child and child-directed speech not only *reflects* children's awareness that copular constructions require a form of *be* in adult English but it also *improves* children's overall understanding of the copula. These findings suggest that *structural priming* – the tendency to produce instances of one grammatical pattern in the input or one's own speech – is a critical mechanism in child language development (Goldberg, 2006: 120-121).

Taken together, the results of this study provide good evidence that children build their knowledge of copula in a piecemeal fashion by gathering linguistic information from the input they receive, supporting the assumptions of a usage-based, constructivist account of first-language acquisition. It is argued that copula omission reflects the cue informativeness of those input data as a combination of various factors, in particular the frequency and phonological salience, both of the copula and the linguistic contexts in which it is used.

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Boundary marking, expression and categorisation of events modulated by the L2 aspect system: conceptual shifts in Chinese-English sequential bilinguals

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Recent research shows that mental representations of events are sensitive to differences in how aspectual contrasts are encoded across languages (Athanasopoulos *et al.*, 2015). This study examines the extent to which situation model construction (Madden & Zwaan, 2003) varies in event boundary marking, expression, and non-verbal categorisation of Chinese-English bilinguals. This cohort is of particular significance as their source and target aspect systems appear more similar than they in fact are. English and Chinese both mark ongoingness grammatically, but while English is more 'action oriented' (*The train is arriving*), Chinese is more 'result oriented' (*The train has arrived*). This difference is attributable to the incompatibility of the Chinese ongoingness markers *zai* and *zhe* with resultative verb constructions (Klein *et al.*, 2000; Xiao & McEnery, 2004).

Three novel tasks were used to test Chinese-English (UK-based) sequential bilinguals and two native control groups (N=22/group). The *boundary marking* task was to drag the start and stop ends of the slider to indicate the start and the end of the phase that best corresponds to a model sentence (e.g. *The boy is throwing away a frisbee*). The *production* task was to retell 22 videos, 11 critical items with achievements (*squashing a watermelon*), and 11 distractors with activities (*pulling a suitcase*).The *nonverbal categorisation* task was to decide which video clip (action-biased vs. result-biased) best matches a model clip. Production results show pronounced between-group differences in aspectual foci. In English L1, the retellings were more action-focussed, but in Chinese L1 and English L2 they were more result-focussed. Categorisation data shows that these L1-modulated preferences are also detectable in non-verbal judgements. Boundary markings revealed that event time in achievements is not equally extensible across L1 groups and, in contrast with production, they showed that bilinguals do not differ significantly from the target-like pattern. One interpretation is partial conceptual restructuring in the bilingual mind (Pavlenko, 2014). Alternative explanations are also provided, and the findings are situated in the context of current approaches to cognitive linguistics and language teaching (Tyler, 2012).

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Priming effect on property attribution for animal metaphor in picture

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This communication deals with a research about the understanding of metaphor in images. [1] defined a pictorial metaphor as a visual manifestation of conceptual metaphor. The source or the target is illustrated in visual terms [2]. Four types of pictorial metaphors can be distinguished: Contextual, hybrids, integrated and similes [3]. In this study, metaphors depicted a man with an animal body translating the idea "This man is a *animal name*". Both source (e.g. body) and target (e.g. man) were fused, therefore, pictorial metaphors were hybrids. They were taken from [4]. According to the categorization process [5], participants were invited to attribute a property [6],[7] of the animal to the character. The property was either perceptual or conceptual. Textual primes were used to make infer a particular property. Participants were divided into three groups: Perceptual primes (PP), conceptual primes (CP) and no prime (NP). First, a prime appeared on the screen plus the following question: "How would you describe this man?" After reading the prime, or only the question (NP), participants saw the pictorial metaphor. The nature of the prime should have an influence of the attributed property and response time should be shorter for CP group. Results showed a significative effect of the type of the attributed property. $X2$ (2, N = 60) = 7.48 ; $p < .05$ participants used more conceptual properties whatever the prime was. Otherwise, response times were shorter for CP. F(2 ; 57) = 6.86 ; $p < .05$. These results could be explained because the knowledge about properties of these pictorial metaphors are mostly shared by people. (e.g. A rooster is proud, a parrot talks a lot etc.) Thus, maybe people do not consider the previous prime because the attributed property was already salliant for them. Therefore, familiarity and general knowledge have to be taken into account [8],[9].

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A constructivist approach to Welsh argument structure

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The study of constructions has been in the limelight of Cognitive Linguistics since the formulation of the Construction Grammar approach to argument structure. Minority and endangered languages, however, have received little attention from cognitive linguists so far. In this work, we analyse the case study of Welsh, the Celtic language spoken in Wales. We focus our attention on the Ditransitive Construction and the constructions related to it, as described by Goldberg (1995, 1999, 2006) for English. Welsh, however, differs from English in two major ways. This Celtic language has a single ditransitive argument structure at its disposal, in which recipients are systematically encoded as oblique complements and follow themes (Primus 1998; Heine & König 2010). In addition to that, Welsh exhibits three distinct but overlapping prepositions for the roles of addressee, beneficiary, goal, and recipient (Jones & Thomas 1977; King 2016). The results from the corpus analysis have shown that the Ditransitive Construction as understood for English cannot be postulated in Welsh. Rather, the construction found displays properties of both the Ditransitive Construction and the Transfer-Caused-Motion Construction. This construction has been termed as the Recipient Construction. In addition to that, we identified three more constructions for Welsh. These are the Intransitive Motion Construction, the Caused-Motion Construction and the Addressee Construction. While the first two have been also identified for English, the last construction does not seem to have any equivalent in this language.

Keywords: argument structure, Construction Grammar, ditransitives, Welsh.

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On gradience of constituent structure: Evidence from word association responses

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The widely acknowledged cognitive process of chunking (e.g. Ellis 1996; Bybee 2002; Sinclair 1987) predicts that language speakers tend to form syntagmatic association between words which co-occur. Based on this prediction, it would be natural to expect a preference for syntagmatic responses in word association tasks as well as their similarity to frequent collocational patterns observed in corpora. Yet, this does not happen (see e.g. Mollin 2009). It has also been frequently observed that language speakers have poor intuitions about frequent uses of frequent words (Renouf 1987; Sinclair 1987; Stubbs 2001). I would like to suggest that this phenomenon can be explained by gradience of constituent structure or the degree of delexicalisation, to use Sinclair's terms. In other words, the fact that *spite* does not commonly bring to mind *in spite of,* but *dark* reliably elicits *night* as a word association response (Edinburgh Associative Thesaurus, EAT) is a result of their relative position on the continuum of delexicalisation or constituency (cf. Beckner & Bybee 2009). Thus, word association responses can be used as a diagnostics of the degree to which an item has undergone reanalysis, or meaning-shift (Sinclair 2004). To show this, I will use two types of data: (1) individual, comprised of word association responses and samples of writing collected from the same language speakers, and (2) aggregated or communal, represented by word association stimulus-response pairs from the EAT. Analysis of the individual data shows that indeed a delexical sense of a word does not come to mind even to the language speaker who herself uses it with this sense in a multi-word sequence. Such evidence seems to suggest that dependent and independent uses of a word become cognitively dissociated, to varying degrees.

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Quantifying semantic salience to investigate contact-induced language change

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Contact varieties that emerge in societies where multilingualism is the norm provide a proper testing ground to study cognitive constraints on language change. One of these constraints is saliency, which has been argued to be an important factor in determining whether a feature gets adopted or discarded in the contact variety (Aboh and Ansaldo 2006; Siemund and Kintana 2008). However, the notion of salience is problematic as it is an extremely broad concept causing scholars to each adopt slightly different definitions which are not always applicable cross-linguistically. In this paper, a new approach is put forward that quantifies semantic salience as the relative contribution of an individual morpheme to the overall meaning of the sentence, coined as semantic load.

Models that apply principles of distributional and compositional semantics have shown success at capturing meanings of words (Erk 2012). Hence, a recursive neural network (RNN) is employed that incorporates these principles in its architecture which is then trained on the task of missing word prediction (Le and Zuidema 2014). Vector representations for morphemes are based on their distributional properties in large text corpora and the sentence representations are formed during the task of word prediction. With these two types of vector representations it is possible to measure the semantic load of individual morphemes.

This paper reports on semantic load as a cognitive constraint on language change by looking at the competition and selection of features with varying degrees of semantic load in actual data of contact languages. In doing so, it shows that computational models are not only useful in their domain of human-computer interaction but can also be employed as a tool in linguistic research. Moreover, as the neural network uses distributional and compositional representations of meaning, the results touch upon the cognitive plausibility of representing meaning in this manner.

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Symbolic similarities between beat constructions and point constructions

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Two of the most extensively studied co-speech speech gesture types are points and beats (Hubbard et al., 2009). While some have noted that points and beats temporally align with speech to facilitate discourse cohesion in similar ways (McNeill, Levy, Duncan, 2015), there has been no exploration of semantic and formal similarities between beat constructions and point constructions. In this study, we adopt a usage-based approach that analyzes points and beats that occur with spoken language as multimodal constructions. Using conversational data, collected primarily from television talk shows, we conduct fine-grained analyses of the form and meaning of point and beat constructions, particularly drawing upon tools from cognitive grammar (Langacker, 1987; 2008) and construction grammar (Croft, 2001). We claim that the two share previously unrecognized similarities.

We suggest that points and beats are composite symbolic constructions. Pointing signs, we claim, consist of two component symbolic structures, a "pointing device" functioning to direct attention and a "location," the referent (Wilcox & Occhino-Kehoe, submitted). Beats have a similar complex structure, mirroring in several important ways the composite structure of points. We propose that beats also consist of a pointing device, serving to direct attention or emphasize components of the speech — a type of "gestural yellow hightlighter" (McNeill, 1992). Points prototypically direct perceptual attention to physical objects in the world, although they also function to direction attention to conceptual objects. Beats, however, prototypically direct mental attention at a conceptual object, the meaning of the accompanying speech.

We suggest there is a continuum between points and beats, with exemplar points and exemplar beats but also intermediate cases in which it is difficult to distinguish whether a gesture serves a point or a beat function. We discuss important implications for current theory, which distinguishes beats and points as distinct functional gesture types.

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What Little Red Riding Hood can teach science: using narrative structure to improve scientific literacy.

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Scientific literature is at the heart of what researchers do. Yet, many science students struggle to understand what they are reading when confronted with the average research paper. Research in Cognitive Narrative (CN) (Turner, 1998) offers a possible solution. CN proposes that we use narrative structure to understand what happens in our world. That it is, in effect, our default organizing mechanism. If this is the case, then the prediction is that this type of structuring should be found in our writings, including scientific literature, and given the primacy of narrative in cognition, any writing that uses it should be easier to understand, once it is recognized as such.

To test this prediction, we developed a pedagogical method that used narrative structure to guide readers in constructing the story told in a research article. We also developed a brief questionnaire on general reading comprehension. We tested the efficacy of the method in a three-condition study using three separate university classes. The first class received no training, in keeping with the reality of most students. The second received training on the structure of a research article, i.e. this is the introduction, etc. The third received the narrative training. All groups read actual scientific articles and completed the comprehension questionnaire. The collective responses were treated as a small corpus, and coded for type of language used, type of response, etc., among other features. Our results showed that general comprehension was greater in the narrative condition. Further, we also found that readers appeared to change how they viewed science, shifting from 'science-as-an-abstraction' to 'science-as-something-people-do'. We will discuss these findings with a view toward further research and actual classroom applications.

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Censoring minds – Translation and metaphor in *Gone with the Wind*

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This paper draws on de Luances and Gómez de la Serna 1943 translation of *Gone with the Wind* to explore the influence that the censoring system during Franco's regime had on the adaptation of Margaret Mitchell's novel to the Spanish socio-political context. In particular, it focuses on how the instances of *mind* were translated. This term is of particular interest from a cross-linguistic perspective because in English the term has a wider scope than its counterparts in other languages (Wierzbicka, 1989). In addition, given its abstract nature, the term is prone to metaphorisation, thus representing a challenge from the point of view of translation (van den Broeck, 1981; Toury, 1995; Schäffner, 2004). Finally, the female protagonist's mind had a particular relevance in certain passages of the novel, which makes it a suitable candidate for examination.

A corpus software tool was used to locate all instances of mind in the source text and those referring to Scarlett O'Hara's mind were selected. These instances of *mind* were then classified according to the source domain that was used to account for them (i.e. CONTAINER, BODY, MOVING OBJECT…) and the corresponding translations were examined in the target text. The analysis showed that a significant number of these instances were transferred as *imaginación* ('imagination'), *cerebro* ('brain'), *cabeza* ('head'), *pensamiento* ('thought'), *memoria* ('memory'), *interior* ('interior'), *corazón* ('heart'), *ánimo* ('mood'), *espíritu* ('spirit') or directly omitted. Some options can be explained by the idiomaticity of the Spanish language. However, for a number of examples, the fact that *mind* was not transferred directly as *mente* is more difficult to justify. This mismatch could be accounted for from a gender studies point of view, since the modifications in the translation seem to be aimed at attenuating the fact that the female protagonist had a mind of her own.

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Not a Prototypical Method in the Language Classroom (Yet)?
Teaching L2-Vocabulary Using Lexical Prototypes

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As an emerging trend in Applied Cognitive Linguistics, the talk explores the use of CL-inspired methodologies in Vocabulary Acquisition Research (Boers/Lindstromberg 2008). The study aims to assess whether an innovative approach to semanticizing new learner lexicon (i.e. the explanation of new L2 words to learners via paraphrase or definition) based on Prototype Theory might prove more effective compared to routine methods with regard to student uptake and recall. Widely recognised evidence in Cognitive Psychology shows that learners quickly and reliably associate lexical items, e.g. *tool*, with their prototypical instantiations, e.g. *hammer, saw, screwdriver*, etc. (Rosch/Mervis 1975, Rosch 1978). Based on these findings, the study posits that L2 vocabulary acquisition is facilitated by creating L2 definitions (i.e. semantizations) that are based on best representatives rather than necessary-and-sufficient-feature, dictionary-style descriptions. To illustrate, compare the learner word FURNITURE as introduced to non-native speakers as (a) FURNITURE *is, for instance, chairs, tables and cupboards* (=prototype-based semantization) as opposed to (b) FURNITURE *is movable articles used in readying an area (as a room or patio) for occupancy or use* (=monolingual dictionary semantization; Merriam-Webster 2015). Preliminary evidence in English L1 and more recent L2-learner studies appears to corroborate the above assumption (McKeown 1993; Verspoor/Wander 2003; Xia 2014). To investigate our hypothesis, an empirical study is conducted in German secondary schools to assess students on 20 vocabulary items in a post-test-only control-group design (10th grade; German L1; English L2; $N \geq 300$; for test instrument, cp. Read 1998). Innovative features of the study include the use of a randomized three group design (control group vs. prototype vs. peripheral exemplars), ecological validity (implementation in an actual school environment) and the aim to derive didactic implications for EFL practitioners. The stimulus materials, test instrument and results of the pilot study will be presented.

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Metonymic motivation of HAND idioms: The cognitive perspective in pedagogical lexicography

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The aim of the paper is to show how the Cognitive Theory of Metaphor and Metonymy can be applied in the lexicographic representation of *hand* idioms. The database for this study contains idiomatic expressions with the nominal *hand* which are included in the "Big Five" English monolingual learners' dictionaries online, and which have an underlying metonymic motivation. The idioms are classified according to such metonymy types as e.g. BODY PART FOR PERSON, BODY PART FOR ACTION, CLOSENESS FOR CONNECTION, and HOLDING FOR CONTROLLING. Dictionary navigation devices that guide the user to the right sense - guidewords in CALD, menus in COBUILD and MEDAL, signposts in LDOCE, and short cuts in OALD - are examined in order to see if they reflect the target metonymic meaning. While the dictionaries provide some of the analysed composite expressions with navigation devices representing the metonymic target, e.g. HELP, CONTROL and INVOLVEMENT, the huge majority of metonymically motivated idioms lack such labels. The paper proposes a number of other metonymic navigation devices that could be attached to the idioms under examination, such as PERSON, CONNECTION, POSSESSION, and RESPONSIBILITY. It also recommends adding more expressions to the already existing labels, thus expanding the semantic networks of interrelated senses. The results of the analysis also demonstrate that the dictionaries often break the semantic links between *hand* idioms which have a common metonymic basis by separating them in the microstructure of the entry, e.g. *in the hands of somebody* and *in somebody's safe hands* are entered as separate senses. Finally, the paper puts forward a model of sense arrangement of expressions with *hand* which groups together the ones semantically related as subsenses under specific metonymic targets used as navigation devices.

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**Semantic Domains and Conceptualisation in Press Reports of Political Protest:
the Case of Hong Kong's Occupy Central**

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This paper uses methods from corpus linguistics (Baker & McEnery, 2014) and theoretical constructs from cognitive linguistics (Hart, 2013 a/b, 2014a/b) to examine patterns of representation around Occupy Central, a recent political protest in Hong Kong, in two corpora of English-language newspaper articles published in China Daily (437 news articles; 403,339 word tokens) and the South China Morning Post (438 news articles; 453,198 word tokens). Using the online corpus analysis tool Wmatrix (Rayson, 2008), an analysis of key semantic domains of the press reports enabled a comparison of the two newspapers according to the following thematic categories: group/organisation, confrontation, characterising attributes and consequences, all of which relate to different aspects of the protest. The analysis subsequently considered three discursive strategies, namely structural configuration, framing and identification, that are mediated through conceptualisations that representations in text evoke. Given the opposing political stances of the two newspapers under consideration, we should expect to find subtle differences in linguistic representations which reflect these conflicting ideological positions. In accordance with earlier findings from quantitative corpus analysis, it has been found that the news reports of China Daily invoke conceptualisations of police as a homogeneous organised entity of professionals where police involvement is legitimated to restore public order in response to the actions of the protesters. However, in the South China Morning Post which is more liberal in its orientation, representations in texts serve to invoke conceptualisations of police, rather than protestors, as instigators of forceful actions. Hopefully, my analysis has shown that integrating critical discourse analysis (CDA) with corpus linguistics and cognitive linguistics in a more balanced way has the potential to identify typical linguistic patterns across many thousands of words as well as reveal underlying construal operations which fulfill an ideological potential in media discourse.

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Iconicity and viewpoint: antonym sequence in Chinese four-character patterns

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Systematic studies have evidenced that antonym pairs tend to co-occur at higher-than-chance rates in discourse (e.g. Justeson and Katz, 1991; Fellbaum, 1995; Jones, 2002; Jones *et al*., 2012), but relatively few studies have been made on antonym sequence. This paper aims to examine antonym sequence in Chinese four-character patterns (called *sizige* in Chinese).

Drawing on the data from *the Dictionary of Chinese Four-character Patterns* (2000), this study first addresses the syntactic frames of the patterns and has found that they can be categorized into symmetric and asymmetric patterns. Then, the study examines antonym sequence in the four-character patterns. The analysis demonstrates that there is a clear correlation between antonym sequence and iconicity. More precisely, iconicity of order, iconicity of closeness and iconicity of culture conspire to determine antonym sequence in four-character patterns. They can be stated in detail as follows:

(1) The order of antonym pairs tends to correspond to the temporal order of the concepts they denote in the real world. For example, *zhao* 'morning' precedes *mu* 'evening' temporally in the physical world, so this sequence is echoed in four-character patterns, such as *zhao si mu xiao* (morning consider evening think 'think over and over again') and *zhao san mu si* (morning three evening four 'change very frequently')

(2) The order of antonym pairs tends to correspond to the closeness of the concepts they denote to the prototypical speaker whether literally or metaphorically. For example, *qian* 'front' is more salient and easily accessible from the perspective of the viewer than *hou* 'back', so *qian* tends to precede *hou* when they co-occur as in *an qian ma hou* (saddle front horse back 'follow everywhere').

(3) The order of antonym pairs tends to correspond to the hierarchic order of the concepts they denote in a give n culture. For example, hierarchy of age is a characteristic belief of Chinese culture. Chinese speakers prefer to put the words referring to older people before the words referring to the younger, such as *lao>shao* 'old>young' and *lao>you* 'old>little'. This order is followed in four-character patterns, such as *nan nv lao shao* (man woman old young 'all the people') and *you lao you shao* (have old have young 'of all ages').

Finally, the study examines the reversible antonym pairs in the patterns and proposes that the reversibility of antonym pairs is attributed to the speaker's viewpoint and the semantic meaning of the patterns. Taken together, these findings suggest that antonym sequence in Chinese four-character patterns follows general cognitive principles.

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Frame-based analysis of synesthetic metaphors in Polish

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The research project described in the paper aims at creating a semantically and gramatically annotated corpus of Polish synesthetic metaphors—SYNAMET. Recent works on metaphor have employed the Fillmorean frame semantics framework in order to account better for metaphor's both cognitive and linguistic properties (Dancygier, Sweetser 2014; Dodge et al. 2015; Sullivan 2013). However, these studies are typically restricted to lexicalized (dead; cf. Müller 2008) metaphors, while our primary aim is to study metaphor as it emerges in discourse. The texts included in the corpus are excerpted from Polish blogs devoted to perfume (SMELL), wine, beer, cigars, Yerba Mate, tea, or coffee (TASTE, SMELL, VISION), as well as culinary blogs (TASTE, VISION), music blogs (HEARING), art blogs (VISION), massage and wellness blogs (TOUCH). The synesthetic metaphors in analyzed discourse are highly complex, coalesced; they form long chains of clusters evoking different kinds of perceptions at the same time. Moreover, a metaphor cluster does not necessarily coincide with the utterance's borders. Thus, the texts need to be analyzed holistically, and frame semantics offers a comprehensive approach in order to deal with such issues. In the project, metaphorization process is seen as frame shifting. i.e. a „semantic reanalysis process that reorganizes existing information into a new frame." (Coulson 2001). It follows that some elements of a frame evoking as its topic specific sensations (e.g. smell) may become reorganized under the influence of a vehicle activating a frame of another sensory perception (e.g. hearing). The paper outlines the analytical procedure employed during the corpus compilation and annotation: it depicts the types of texts included in the corpus and exemplifies lexical items evoking various perceptual frames. Finally, issues connected with identifying metaphorical schemata observable in the material are discussed.

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The Grammaticalization and Subjectification of Chinese Speech Word 说(say)

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The grammaticalization of Chinese speech words is also of language universals. The paper, with research methods, makes a quantitative and qualitative study of 说(say) concerning its grammaticalization and subjectification. The observation of Chinese synchronic corpora and CCL shows that the verb 说(say) experiences a path and degree of semantic blanching: both adverbialization (speech verbs>sentential adverbs>grammatical markers) and pragmaticalization (speech verbs>adverbs>conjunctions>pragmatic markers). 说(say), on modern Chinese data bases, has semantically transmuted from a verb to conjunctions as 说(say) >例如say$_3$ (for example, 44 cases) > 大约say$_2$ (approximately, 6 cases)>假设say$_1$ (assume, 4 cases), mostly in single particle 说 cases. The subjectification of 说(say) shows various traces: truth condition>non-truth condition; propositional content> propositional content/procedural meaning> procedural meaning; non-subjectivity>subjectivity/intersubjectivity>intersubjectivity. The frequency of the subjective 说 (say) ranks as say$_6$ (explanation, 176 cases)> say$_7$(source of knowledge, 53 cases) > say$_3$(illustration, 44 cases) > say$_5$(light emotion, 41 cases), mostly in "X (conj.) +说" constructions. And intersubjectivity is the most prominent feature in the cases of say$_{4\text{-}6}$, with a prominence to hearers' interpersonal feelings.

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Motivated polysemy of some prepositions in Baltic:
the Lithuanian UŽ and the Latvian AIZ

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This paper relies on the principle of motivated polysemy elaborated by cognitive linguists (Talmy 2000; Matlock 2004). A large amount of previous research has dealt with the English data with many works analysing spatial expressions. The investigation of inflecting languages, where case plays an important role, has mainly focused on Slavic languages (Tabakowska 2010; Shakhova & Tyler 2010). Baltic languages have received much less attention (but see Šeškauskienė & Žilinskaitė-Šinkūnienė 2015).

In our previous research (ibid.) we attempted to account for 13 meanings of the Lithuanian preposition UŽ + Gen./Acc. ('behind') linked in a single network. In this paper we explore the polysemy of the Latvian AIZ + Gen. and identify overlapping and differing senses of UŽ + Gen./Acc. and AIZ + Gen. We also try to account for the motivation of the senses and to discuss the question of equivalence. The choice of the languages was prompted by the fact that Lithuanian and Latvian are genetically closest and the only surviving Baltic languages.

The data for the investigation has been drawn from two corpora: the Corpus of Contemporary Lithuanian Language (http://donelaitis.vdu.lt/main_en.php?id=4&nr=1_1) and the Balanced Corpus of Modern Latvian (http://www.korpuss.lv).

The results of the investigation suggest that the network of the Latvian AIZ is narrower than that of its Lithuanian counterpart UŽ. A number of senses in Lithuanian and Latvian overlap, such as spatial location, function, control, obstacle, sequential location, boundary and hiding. However, the senses of spatial distance and temporal distance, as well as more abstract senses (quality distance, replacement, retribution, benefactive) are only found in Lithuanian. The meanings of sequential time, hierarchy and causation are only identifiable in Latvian.

A number of senses are motivated by cognitive principles, such as embodiment, attention phenomena or metaphors, such as TIME IS SPACE, QUALITY IS SPACE, etc. A broader network of the Lithuanian UŽ can be accounted for by difference in the etymology of the prepositions.

Keywords: prepositions, motivated polysemy, conceptualization, Baltic languages

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