

The constructionalization of body part terms in Arabic

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Terms denoting human/animal body parts have cross-linguistically been noted to have extended functions that go beyond their basic referential uses. For instance, terms such as HEAD, FACE, EYE have grammaticalized in some languages into spatial markers, while terms such as BODY and FACE have developed into reflexive markers (Heine and Kuteva, 2002). Terms referring to HEART, LIVER, BILE are noted to participate in constructions and idiomatic expressions that associate with emotions. In addition, terms denoting EAR, EYE, TONGUE, HAND, FOOT – that refer to body parts responsible for perception, motion, speech and other functions – can emerge in idiomatic collocations or as verbs that refer to dynamic situations in which those body part terms are typically used (Heine, 2011), as in *could you hand me that book?*

Body part terms in Arabic show a similar pattern in that they participate in idiomatic expressions and can also be used to mark spatial relations. More interestingly, however, the majority of body part terms in Arabic are considered morphologically simple lexical items, in that little to zero derivation is involved in the lexicalization of terms such as *'ayn* 'eye', *ra's* 'head', *baṭn* 'stomach', etc. As a Semitic language, a large part of the process of lexicalizing verbs (and other lexical categories) relies on fitting bi-/tri-/quadri-consonantal 'roots' within particular morpho-phonological 'grids'. According to many Arabists, the resulting lexical items are "variants [that] have a central, related lexical meaning, but each verb form has a different semantic slant on that meaning." (Ryding, 2005:434). Arabic body part terms lend themselves to this type of process and serve as roots that can be systematically incorporated into verb 'forms' or constructions. For instance, *tara'assa* 'headed s.th.', as in *tara'assa al'eğtima* 'headed the meeting', is an instance of a verb construction resulting from combining *ra's* 'head' with Verb Form V. It has been argued that the 10 verb forms in Arabic vary in their individual (abstracted) meanings, and in the semantic load which they bring into the verb construction. The least complex Verb Form I is argued to be the "unaugmented" form, which is closest to the basic meaning of the root (Holes, 2004), while the "augmented" Forms (II – X) vary in terms of voice, valency, and aspect. That is to say, these verb forms are supposed to add, for instance, a causative, reciprocal, mutual, reflexive, or passive meaning to the root (Holes, 2004; Ryding 2005; among others). Yet, there is still no consensus among Arabists as to what may be considered the most fundamental meaning of each verb form.

The question that this paper attempts to answer is what counts as a non-referential, yet integral part of the meaning of a body part term in Arabic that can contribute to the lexicalization of a verb and the construal of an event. I will discuss my preliminary examination of verb constructions hosting body part terms and showing a variety of meaning extensions that build on metaphorical and metonymical associations to particular body parts, as exhibited in Classical Arabic dictionary entries and Modern Standard Arabic corpora. In general, the analysis shows that the meaning extensions of these verbs do not always include a (direct) typical use of the body part, such as SEEING for EYE, or SMELLING for NOSE. For instance, a couple of verbs derived with *'anf* 'nose' may involve a temporal reading: *'iṭanafa* and *'ista'nafa* 'to nose s.th.' (both meaning 'to resume'). In addition, a number of body part-related verbs that are derived with the supposedly "unaugmented" Verb Form I indicate the meaning of affliction. For example, *naḥara*, 'to upper chest s.o.', is to cut someone's throat. Clearly, meaning extensions of such verbs in are not necessarily predictable, neither by the body parts they associate with nor by the semantic information presumably residing in the different morpho-phonological patterns of the Arabic verb. The result is an abstraction of the basic meaning of the body part, as in the 'nose' example. In this paper, I will also discuss the fact that while certain verb constructions are no longer in use in Modern Standard Arabic, the ones that persisted may have acquired more specific meanings in current language use and would therefore appear in a more limited set of constructions in MSA than they did in Classical Arabic.

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Two kinds of cognitive pedagogical grammars

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Recent publications have illustrated the benefits of adopting the Cognitive Linguistics (CL) model to second language teaching. This presentation further highlights the model's contributions by presenting two different views of grammatical instruction that both implement the CL's most basic tenets. These two methods afford second language instructors the flexibility of addressing the pedagogical demands of specific grammatical constructions with the most appropriate tools to introduce them in their classroom.

In the usage-based model (Langacker 2000), the form of grammar reflects the users' expression of their conceptualizations in specific "usage events" (Langacker 2000: 10). Grammatical rules emerge from their multiple instances, and represent the conventionalized ways of construing the conceptualized scenes. In a second language, teaching grammar therefore consists in placing the learner in the best conditions to make the kinds of choices a native speaker would make in similar situations. Consequently, usage-based instruction will be inductive (since rules emerge out of usage), implicit (since syntax has no particular status in acquisition), and will include as few metalinguistic concepts as possible since the rules are merely more abstract than their instances.

Cognitive Linguistics also places strong emphasis on the sociocultural dimensions of language learning because the child's linguistic system is formed largely in relation to other users. For a second language learner, the classroom context provides the locus where instruction and development are drawn together "into an organic unity that arises in concrete practical activity." (Negueruela and Lantolf 2006: 80). Since second language learners already possess a fully developed conceptual system, "[s]econd language instruction is a matter of not only learning new forms but also internalizing new or reorganizing already existing concepts." (Negueruela and Lantolf 2006: 81). Consequently, "[c]oncept-based instruction supports explicit instruction in grammar to promote the learner's awareness and control over specific conceptual categories as they are linked to formal properties of language" (Negueruela and Lantolf 2006: 82). In this view, new concepts are not only explicit, but also "talked through" with the help of didactic models such as charts and diagrams, in order to ensure successful incorporation into the learner's cognitive system.

The adoption of the CL model therefore seems to lead instructors along two seemingly opposite paths. On the one hand, teaching grammar as usage demands inductive, implicit, bottom-up instruction, while teaching grammar as concepts requires deductive, explicit, top-down introduction. This presentation shows that far from being problematic, this situation allows instructors to considerably extend the scope of their grammatical instruction because different constructions lend themselves better to different presentational strategies. Concept-based instruction is particularly efficient with "formal" categories, i.e. categories where a specific form is reliably associated with a specific meaning, while usage-based instruction is preferred to introduce grammatical categories whose meaning is not reflected by a single form. This is in particular the case for "functional" categories composed of different forms held together by common semantic functions and idioms or semi-constructed chunks.

This presentation examines examples of both "formal" and "functional" categories to illustrate how usage-based and concept-based instructions combine to provide successful grammatical instruction in the communicative classroom.

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The Agreement Construction

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Construction Grammar has offered insightful accounts of a large set of both regular and idiosyncratic constructions, including idioms and all kinds of ‘prefabs’, as well as of variously productive constructions like the *Time Away Construction*, the *What’s X doing Y Construction*, and many others. An outstanding lacuna in this large set of studies is agreement, which figures prominently in all forms of generative grammar (Guasti & Rizzi 2001; Boeckx 2009, among many others). To my knowledge Construction Grammar has no theory of agreement. This contribution is intended to fill that gap.

Agreement has always posed a puzzle to grammarians for a number of reasons. First is the fact that it is not a universal of language but is still mysteriously prevalent cross-linguistically. Then is the related fact that it becomes instantiated in cross-linguistically very different proportions. Frequent mismatches (un-agreement) where meaning ties do all the work have typically plagued discussions of it and made a unifying account difficult. The latest solution to the problem of agreement seems to be to contemplate it as an interface problem (Corbett 2006: 3; Eberhard, Cutting & Bock 2005).

Here I intend to show that agreement *is* a construction, of the core kind, and that this construction shares with the rest of the *constructicon* the very same cognitive principles that structure it: metaphorical extension, metonymy, Gestalt formation and prototypicality effects, usage-based self-structuring, and portions of idiosyncrasy which nevertheless show signs of resting on independently identifiable general cognitive principles. Besides those general dimensions, two particular facts about the grammar of agreement are accounted for: the first is the Agreement Hierarchy (Corbett 1979; 2006); the second is the fact that, given vast cross-linguistic differences in the size of the morphological component, which agreement capitalizes on, we should be able to see how languages exhibit different ‘ecologies’, that is, different reflexes of the size (and the frequency) of their agreement systems in the rest of the grammar. Although this work has no typological pretensions (Corbett 2006), I will illustrate agreement operations using English and Spanish, as these two languages show two rather extreme positions in their morphological repertoire and, fortunately, there is now a large body of experimental work done on the processing of agreement ties in both.

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Conceptual Integration and Split Selves in *The Dark* (John McGahern, 1965)

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The present paper delves into Irish puritan society of the mid 1960s as depicted by Irish author John McGahern in his 1965 novel *The Dark*. The novel, set in rural Catholic Ireland, provides us with an excellent framework to explore in some detail the contradictions of a puritan, theocratic society.

Our analysis will be grounded mainly on the Mental Spaces Theory and the Conceptual Integration Theory (Fauconnier 1985, Fauconnier and Turner 2002 and Hamilton 2002). Blending or Conceptual Integration furnishes a consistent theoretical framework for an accurate, fine-grained analysis of the hypocritical Catholic puritan society of the time and its double morals. In particular, some stereotypical characters, which can only be thought of as by-products of their social and historical context, will be described on the basis of the split selves principles and will also be considered to be instances of blends (Emmot 2002).

The primary focus of our analysis will be a trio of molesters: (i) Mahoney (the protagonist's father, an extremely complex character with multiple selves, going all the way from a tough farmer to a tyrannical father, while also standing for a patriarchal social organization), (ii) Father Gerald (a respected and influential priest, albeit with a very human and dark side) and, finally, (iii) Mr Ryan (a rather wealthy businessman and a prominent figure in the community).

Special attention will be paid to the overt attack on the Catholic Church, reflected in certain metaphorical mappings which will be explained and described in terms of Steen's (2011) Contemporary Conceptual Metaphor Theory and its social approach. Specifically, we will describe how McGahern combines official metaphorical structures like RELIGION IS POWER AND CULTURAL CONTROL with contested and emerging constructs such as PREACHING IS BRAYING, by means of which he explicitly and deliberately attacks the social and cultural world that he knew so well.

Other epistemic correspondences between input and target spaces of a metonymic nature will interact in a process of metaphor construction, thus qualifying in their own right as instances of metaphonymy (Gooseens, 1990). By means of experiential correlation and cultural models, a newspaper stands for praying the rosary, and the fact that it is an issue of *The Irish Independent* affords mental access to puritan values and social organization, thus being regarded as an instance of double metonymy. An advert inside the paper is also an instrument for sexual arousing in the same way as the molesting selves remain hidden from public view in the three characters under scrutiny here. These constructs are analyzed as metonymic reductions of metaphoric targets.

The blends and the subsequent metaphors resulting from our analysis may be plausibly subsumed under the umbrella term analogy LUST IS A PRISONER OF PURITANISM, which encapsulates the officialdom of the Catholic church as well as puritanism, and the explicit statement made by McGahern, thus qualifying as a deliberate instance of official metaphor and a contested metaphor in Steen's (2011) terminology.

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Things As Relations: A Case of Nominalization from Arabic

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Deverbal nominalization, according to Langacker (2008), entails the conceptual reification of a process or temporal relation as profiled by the verb. The profile, as a result, shifts from the verbal relation to the deverbal nominal.

The aim of this talk is to show that nominals which usually profile things may in certain contexts profile verbal relations or processes. This is achieved by way of nominalization. I take Arabic here as a case in point.

For Langacker, nominalization is intended for the reification of events and processes such that the profile shifts from the actual process to the reified process that is expressed by way of nominalization. In Arabic, however, it is grammatical to use a nominal that functions semantically like a verb in the imperative form, thus inducing an imperative verbal reading. The imperative interpretation is effected via contextual indexical cues.

Deverbal nominalization coupled with the absence of a predicate may motivate or coerce an imperative verbal reading of the nominal. I claim that the choice of this construction over the explicit imperative one is governed by the following: First by pragmatic factors, such as politeness and indirectness because this construction mitigates the force of the request and hides the event agency. Second, it may be governed by indexical factors implying the plurality of the instances of the process requested, a plurality that is derived from the plurality of the addressees. Third, the choice may suggest in particular contexts the degree of the urgency of the process requested as to rule out all other options or processes. This last factor is usually accompanied by the construal of the reified process or event as a count bounded noun rather than a mass unbounded noun that is typical of reified events' and processes' construal.

I explain the two potential nominal and relational readings in terms of two competing schemas which one then seems to supersede the other because of the given formal as well as contextual cues.

The data is derived from actual authentic occurrences of Arabic, both standard and colloquial, in different settings.

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Actionality and Empirical Evidence: Punctual Verbs in Russian

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Key words: actionality, achievements, punctual verbs, semelfactives, telicity, Russian

Since Vendler and Dowty, actional classes have been defined in terms of features, including [±durativity]. Achievements were initially the only non-durative class. In later research more elaborate classifications were proposed (see Table 1).

Achievements are telic verbs with a preparatory stage and a result state. Event-punctuals are dynamic, but they do not involve any change in the world and therefore are atelic, whereas State-punctuals are psychological verbs. Russian with its complex verbal derivational morphology is particularly interesting in this respect in that it overtly marks much of the semantic structure. In fact, it has two semelfactive (henceforth SEMEL) markers, the prefix *s-* and the suffix *-nu-*, whose distribution depends on V stems and semantic classes, e.g., *čix-nu-t'* 'sneeze (once)' vs. *s-xitrit'* 'to do one clever thing' (Dickey & Janda 2009). *S-* and *-nu-*SEMELS roughly correspond to state-punctuals and event-punctuals, respectively. However, there is no one-to-one patterning.

We show that neither the lexical meaning of the V nor its morphemic structure alone can predict the actional behavior of the V. Three factors should be taken into account: lexical meaning, semantics of the affix, and syntactic construction. The data from non-standard Russian show that both *s-* and *-nu-* can be used with the same V stems. We take all the *s*-SEMELS from Dickey and Janda 2009 (105 Vs) and check whether they are attested with *-nu-* instead of *s-*, using the Yandex search engine. As follows from Table 2, 42 out of 105 SEMELS can be used with both *s-* and *-nu-*. In order to compare the argument structures of *s-* and *-nu-*alternates we have manually tagged 100 random attestations of each *s*-SEMEL from the Russian National Corpus (RNC) and all examples with their *-nu-*alternates found by the Yandex search engine.

For over 50 % of the V stems (22 Vs), the *s-* and *-nu-*alternates differ in their argument structure. One of such differences is the co-occurrence of the *nu*-alternate with the transitive construction, see (1) and (2):

- (1) *Nu, s-duri-l sgorjača, nagovori-l ... lišnego*
Well **s-act.silly**.PFV-PST.M.SG impulsively say.a.lot.PFV-PST.M.SG superfluous.N.GEN.SG
'Well, I acted silly in the heat of the moment, said ... too much' [RNC]
- (2) *Menja kupec ešče i dur-nu-l*
neslabo
1SG.ACC merchant.M.NOM.SG moreover act.silly-NU.PFV-PST.M.SG pretty.much
'Moreover, the merchant tricked me pretty well out of my money' [Web]

S-SEMELS on the average are used intransitively whereas *-nu*-SEMELS can appear in constructions with more than one participant. *-Nu*-alternates exhibit a more dynamic behavior than the corresponding *s*-SEMELS, which even makes motion Vs compatible with atelic-extent adverbials, as in (4):

- (3) *Mihail s-letal* (4) *... ja let-nu-l*
v Izrail
Mihail.M.NOM.SG s-fly.PFV-PST.M.SG in Israel.M.ACC.SG 1SG.NOM fly-NU.PFV-PST.M.SG 2 hour.GEN.SG
'Mihail went to Israel by plain (and came back)' [RNC] 'I used (the helicopter) for two hours...' [Web]

Overall, the data show that the difference in the argument structure is not dependent on the semantic class, although motion Vs with *-nu-* and *s-* tend to occur in different constructions.

Our empirical data indicate that V stems and the affixes under study indeed have preferences towards certain actional classes. Yet, the interplay of these factors together with the syntactic construction can modify the actional type of the V, thus becoming a tool for construal. A construal operation can be applied on the same V not only in languages like English (Croft 2012) but even in Russian, where some morphemes by default are assigned to only one actional class (the suffix *-nu-*).

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Metaphor Development in Arabic-Speaking Children

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Considering the importance of metaphors in successful everyday communication, it is perhaps surprising that there is a general lack of research into how metaphor comprehension develops across age. Few studies that investigate metaphor development distinguish different types of metaphors (Olofson et al., 2014, Stites and Özçalışkan, 2012). While evidence suggests that metaphor development starts when the child is four years (Özçalışkan, 2007, Rundblad and Annaz, 2010), the same onset age should not be automatically assumed for different types of metaphors, nor for all languages.

This study investigates the emergence of metaphorical understanding in typically developing Arabic-speaking children, an area of research very much still in its infancy. It draws on data from Arabic to look into how some types of metaphors that are claimed to be rooted in human cognition and learned early on as the child starts to experience the world (i.e. primary conceptual metaphors) differ from other types of metaphors that are based on perceived similarities (i.e., perceptual metaphors). In addition, the study examines the role of metaphor conventionality (i.e. lexicalized versus novel metaphors) on metaphor development. It also investigates the influence, if any, of receptive vocabulary on the comprehension of metaphorical language.

The study included 80 typically developing children between 3 and 6 years of age, and 20 typically developing adults between 18 and 30. Metaphor comprehension was tested using 20 short stories: 5 conventional primary conceptual metaphors, 5 novel primary conceptual metaphors, 5 conventional perceptual metaphors, and 5 novel perceptual metaphors. Results show significant differences between metaphor types, in particular, earlier and better understanding of primary metaphors. Young children understand conventional and novel primary metaphors equally well; while performance on both conventional and novel perceptual metaphors improved with age. Results also suggest that verbal ability better predicts emergence of metaphorical understanding of perceptual metaphors compared to primary metaphors.

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What, if anything, is a phoneme? Cognitive Phonology beyond the alphabetic metaphor

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Most approaches in contemporary phonology are based on an alphabetic metaphor, arguing that speech sound can be meaningfully divided into letter-sized chunks. For the structuralists, and for many researchers working in Cognitive Phonology and Natural Phonology, the relevant letter-sized unit is the phoneme. A letter-sized unit (the segment) also forms the basis for the deep and surface representations of Generative Phonology and the input and output forms of Optimality Theory. This paper argues against the alphabetic metaphor in phonology and presents an alternative model for conducting phonological analysis in a Cognitive Linguistics framework, based on the perception of acoustic cues via image schemata.

One prominent approach within Cognitive Phonology (Nathan 1996) sees phonemes as basic-level prototype structure categories in the Roschian sense (see also Lakoff 1987). A common argument advanced in favour of this view is the supposedly fundamental nature of alphabetic writing systems (Nathan 2006; Fowler 2010 *inter alia*), which has been convincingly challenged in the relevant literature (Daniels 1992). While phonological parsing into letter-sized chunks may seem natural and intuitive to those who are literate in an alphabetic writing system, such practice may be an instance of eurocentric bias (Baroni 2013) based on a 'phonetic hypostatization of Roman letters' (Firth 1948).

In the alternative model presented here, functionally relevant cues in the acoustic signal are seen as *noemata*, the perception of which is analogous to other objects of cognition. As such, they can be explained by means of image schemata (Johnson 1987, Hampe and Grady eds. 2005). One image schema, *PROCE*, captures the essentially linear nature of speech sound as a series of consecutive and coordinated acoustic cues. A second, *PATH*, describes the non-linear identity of cues of the same sonority profile. A third, *CYCLE*, defines a canonical CV syllable within the *PROCE*, speech thus being understood as a cyclical process of recurring acoustic events of lower and higher sonority. At the intersection of *PATH* and *CYCLE* are given acoustic cues, understood as domains with gradable properties and thus subject to scalar percepts (Clausner and Croft 1999).

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Constructional change in Swedish. The case of concessive constructions

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This paper should be taken as a contribution to a Construction Grammar approach to grammatical change. It is about the development of Swedish concessive constructions. The story of Swedish concessives is interesting not least with respect to the development of subordinators. Swedish concessive subordinators such as *fast(än)*, *änskönt* and *ehuru* all originate in contentful constructions, for example the adjectives *fast* 'steady', *skön* 'nice' and the interrogative pronoun *hur* 'how' (cf. relatives in English although, German *wiewohl*). They have all undergone category shift, traditionally analyzed as change from lexical item to grammatical word in grammaticalization theory (Hopper & Traugott 2003). Confronting grammaticalization research with the framework of construction grammar brought up the question on how grammaticalization relates to constructional change in general. This has recently led to an analysis of grammaticalization in terms of constructionalization (Traugott & Trousdale 2013).

On the basis on an extensive empirical study, I will show that the development of Swedish concessive subordinators are related with – or rather determined by – constructions at a higher clause level. The development follows a path from *universal concessive conditionals* ('no matter how') > *concessive conditionals* ('even if') > *concessives* ('although'). I will argue that a cognitive analysis of change in terms of mismatch, analogy and entrenchment (Traugott & Trousdale 2013) give us a broader understanding of the development than suggested in earlier grammaticalization approaches. Furthermore I will address the issue of constructional schemas discussing if the constructions under study develop towards a larger generalization, so called macro-constructions, or more loosely connected micro-constructions (constructional families).

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Towards a construction-based grammar The case of German and Dutch modal constructions

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Growing evidence demonstrating that usage-based features such as frequency patterns, prototypes and fixed sequences are key to (first) language acquisition (Tomasello 2006; Goldberg & Casenhiser 2008), has raised interest in applying these principles to second language learning and pedagogy (Handwerker 2008; Ellis & Cadierno 2009; Holme 2010; Rostila 2012; Boas 2014). However, as Ellis (2013: 366) points out, second language acquisition is characterized not only by learning constructions, but also by “processes of [...] reconstruction”. In our study, we want to go beyond a merely theoretical approach and examine the practical implications of applying a constructionist framework to the description of modality. Our reasons for dealing with modality in German and Dutch are three-fold. First, the expression of modality has been shown to be a frequent source of mistakes for L2 learners (see e.g. Maden-Weinberger 2009). Secondly, due to their typological closeness, which results in both positive and negative transfer, German and Dutch are particularly suited for contrastive analysis. The third reason is that constructionist accounts of modality are rare, notable exceptions being Wärensby (2002), Boogaart (2009) and de Haan (2012). Whereas Boogaart (2009: 228) emphasizes “the need for a constructionist approach to modal verbs”, Wärensby (2002) questions the feasibility and usefulness of such an enterprise. We argue that a combined contrastive and constructionist approach can shed a new light on the intricate domain of modality.

Starting from the observation that – despite the strong formal resemblances in their paradigms – the modal systems in Dutch and German function very differently (Mortelmans et al. 2009), our pilot study verifies that most mistakes Dutch-speaking university students make can indeed be explained by L1-induced constructional transfer, a case in point being the use of *möchte* instead of concessive *sollte* (cf. Dutch concessive *mocht*) or *sollte müssen* instead of *müsste/sollte* (cf. Dutch analytic *zou moeten*). Other frequent mistakes include the syntactic mapping of Dutch constructions with modal verbs that are characterized by degrammaticalisation (i.e. modal verb constructions without an accompanying infinitive, cf. Nuyts 2011) and the inability to discriminate between past indicative and subjunctive forms. Yet, although deviating form-meaning mappings are being catered for in contrastive grammars (often from a functional perspective), many subtleties remain unnoticed as is evidenced by non-idiomatic uses of modal constructions even at advanced proficiency levels. Drawing on corpus data from translated novels and a larger control corpus (*DeReKo*), we address this problem from a constructionist perspective: we identify interrelated constructions with the verbs *können* and *sollen* – from a Dutch viewpoint a fairly straightforward vs a complicated case – and illustrate how networks and inheritance links can be visualized in a construction-based grammar for L2 purposes.

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Is the distinction between semantically transparent and opaque compounds psychologically real? Evidence from experimental data on English compounds

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The notion of semantic transparency is reminiscent of Langacker's (2008: 61) term *analyzability*, referring to the degree to which the components of a complex structure are salient against the background of the composite structure. It has been suggested, often intuitively, that compounds differ in the degree to which the meanings of their component elements contribute to the overall meaning (Libben 1998; Libben et al. 2003). Thus, a structure such as *bedroom* has been argued to be more transparent than *lipstick*, which in turn is more transparent than *humbug*. However, it is unclear whether the structures differ in how they are represented in the minds of native speakers. The present project aims to empirically assess whether semantic transparency affects the mental representation of compounds. The study asks whether compounds of varying degrees of semantic transparency would show signs of whole-word access or decomposition. Following Libben et al. (2003), the stimuli were selected so that: (1) if both components were deemed relatively transparent, then the compound was labelled TT (Transparent-Transparent), e.g., *doorbell*; (2) if the modifier is relatively transparent but the head is relatively opaque, then the compound belongs to the TO (Transparent-Opaque) category, e.g., *lipstick*; (3) if the modifier is relatively opaque but the head is relatively transparent, then the compound is OT (Opaque-Transparent), e.g., *godchild*; if both elements are relatively opaque, then the structure was labelled OO (Opaque-Opaque), e.g., *scapegoat*. Native speakers were asked to provide mental associations with 40 lexicalised compounds (10 per compound type). The associates were then coded as relating to either the composite meaning, thus indicating whole-word access, or to one of the components, which would speak of decomposition (i.e., access via the component elements). It was expected that a transparent component would trigger more component associates than an opaque one, so that the more transparent a compound is, the more likely it is that speakers will access its components. Four hypotheses stemmed from this assumption: (1) associates related to the whole structure should be more frequent in the OO condition than in the TT condition. TO and OT are predicted to occupy an intermediate position; (2) associates related to the components should occur more frequently in TT, than in TO/OT compounds. In turn, component associates in TO/OT should be more frequent than in OO; (3) there should be more associates with the head element in the TT and the OT conditions, than in the TO and OO conditions; (4) there will be more associates with the modifier element in the TT and TO conditions than in OT and OO. These predictions were generally confirmed, so that whole-word access, manifested in a significantly greater frequency of associates related to the composite meaning, was the driving processing mechanism for compounds in which both the head and the modifier were relatively opaque. For compounds in which at least one of the components was deemed relatively transparent, there was evidence of decomposition. Associates related to the whole structure did occur, however, suggesting that both mechanisms (whole-word and decomposition) are not mutually exclusive, which is in line with Cognitive Grammar's claim that much in language is a matter of degree. Thus, it can be concluded that the distinction between transparent and opaque compounds, which has been postulated by linguists, is psychologically real for native speakers.

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An Empirical Classroom Study on the Efficacy of Using CG to Teach German Case to Intermediate Learners

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The theory of Cognitive Grammar (CG) can be used to account for a number of syntactic structures in a variety of languages in a way that is useful to L2 students (De Knop and De Rycker 2008, De Knop et al. 2010, Tyler 2012 and many others). This paper presents the results of a classroom study conducted over a 10 week period assessing if a CG presentation of the case system in German leads to better student production on a post-test and delayed post-test than the instruction provided in the intermediate textbook, *Denkmal*.

Following Vygotsky's Sociocultural Theory (1978), true acquisition of any structure can only be successful for learners if there is a *tool* that can help evoke the required images and processes from the present inherent linguistic data and sort the information in such a way that eases the learning process. Therefore, the proposed analysis suggests looking at cases as one whole entity rather than scattered grammatical units and offers a visual description of the case system.

In Week 3 of instruction the students were given a pre-test comprised of three sections. The first was to label the case of German nouns, the second was to fill in the correct definite article in the blank and the third is to write a five-sentence paragraph to a picture that encourages the use of all four cases. The treatment occurred in Week 4 over a three-day period. On day one the students are given schemata to represent the four cases and sample sentences. On day 2 the students receive a quick review and then write sentences to the schema that they are given in groups and individually. On day 3 the students draw their own schemas to sentences they are given and conclude the lesson by drawing their own schema and having a partner write the sentence or writing the sentence and the partner draws the schema. The students were given a post-test in Week 8 similar in format to the pre-test and a delayed post-test after a three month interval.

By examining the effects of the proposed case explanation method in a test group and comparing the results with a traditionally-instructed control group, the study attests that the CG-based explanation of the German case system resulted in improved performance on the post-test and delayed post-test. Although not all of these results are statistically significant, all students in the treatment group improved on recognizing case, filling in the blanks with the correct article and the use of case in the free writing portion.

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Plural mass nouns and the construal of individuation: usage-based evidence from cross-linguistic first language acquisition

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Usage-based accounts of language acquisition suggest that children arrange not simply linguistic units in an utterance but also the conventional communicative intentions expressed by these units (Tomasello 2006). Athanasopoulos (2008) has argued that, even though the count/mass noun distinction is observed both in Greek and English, mass nouns in Greek, unlike English, can flexibly be pluralised. In the present study, the effects of grammatical structure on non-linguistic cognition are examined. Greek and English three- and four-year-olds as well as adults completed a linguistic and a cognitive task. In the linguistic task, plural marking on familiar count and mass nouns was assessed. Greek-speaking children and adults pluralised mass nouns more than English-speaking children and adults. In the cognitive task, classification preferences were examined for novel objects and substances. Both Greek and English adults but only older Greek children respected ontological kind, when distinguishing objects from substances in an informative syntactic context. Results from multiple regression analyses revealed that pluralisation of mass nouns in the linguistic task was a significant predictor of shape preferences in the cognitive task for older Greek children as well as adults. These results reveal that: a) Informative syntactic cues developmentally enhance ontological categorical distinctions in Greek children as well as adults but only in English adults; and b) Greek, compared to English, children as well as adults apply plural marking to a greater extent on mass nouns and this has consequences for the non-linguistic construal of individuation. Such effects have not been found before and have implications for theories on the interaction between language acquisition and category formation (Tomasello 2006) as well as between language and thought (Whorf 1956; Lucy 1997).

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Word-formation metonymy – to be or not to be? The role of metonymy in verbocentric compounds (in English and Bulgarian)

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Metonymy has been attracting avid research interest in the past decades, yet its understanding and analyses are far from complete. The literature is replete with different definitions, models and interpretations of metonymy. Its role in the grounding of metaphor, in conceptual interaction, in inferencing and in shaping linguistic structure has been widely studied. Apparently, metonymy is wide-spread, but its manifestation and operation are not uniform across domains. To contribute to the study of the specificity of metonymy in a well-defined linguistic area, the first question to be addressed in the talk is whether any explanatory gains are to be had by recognizing *word-formation metonymy*. The proposed positive answer is contextualized in the ongoing argument between Janda (2011, 2014) and Brdar and Brdar-Szabó (2014) and a well-established tradition of analyzing the role of metonymy in word-formation (Barcelona 2011; Benzecs 2006; Dirven 1999; Farrell 2001; Janda 2011; Ungerer 2007, etc.). The basic line of argumentation capitalizes on the notion of *metonymic reasoning* in language, stemming from Gibbs' (1999) proposal that a distinction should be drawn between metonymic processing of language and processing metonymic language. The proposed study of the role of metonymy in verbocentric compounds reviews it predominantly as belonging to the mode of processing category and delineates it from arguably similar phenomena such as facetization and zone activation.

It is argued that metonymy underlies grammatical schematization in lexical constructions (compounds) and displays specific properties. These properties, stemming from the fact that it operates in lexicogenesis as a formal cognitive operation, not as a content one (Francisco Mendoza Ibanez 2011), provide sufficient grounds for recognizing *word-formation metonymy*. Adopting his (ibid.) criteria for distinguishing between formal and content cognitive operations, I argue that the modus operandi of metonymy in verbocentric compounds classifies it as a formal cognitive operation, which results in the creation of a new symbolic complex for a target concept. This involves both semasiologically and onomasiologically guided processes of mentally accessing the novel target concept on the basis of the source verbal concept, which evokes the frame within which metonymic reasoning based on immediate contiguity functions. The presence of the source verbal concept in the morphotactics of the resultant symbolic complex satisfies Koch's requirement for “total morpho-lexical invariance of linguistic form” which agrees even with “the traditional conception of “metonymy”” (Koch 2001: 233). Frame as an operational term for individuating and organizing highly schematized conceptual content, names a gestalt anchored into an actional core and as an analytical tool it involves the study of the foregrounding relations between concepts and their constituent elements in the profile of the lexical items evoking and evoked by them (Fillmore 2006 and Goldberg 2010).

In the second analytical part the results of the frame-based analysis of the role of word-formation metonymy in a corpus of 332 Bulgarian verbocentric compounds (255 nouns and 77 verbs) and 510 English ones (255 nouns and 255 verbs) are reported. The focus falls on the intricate interplay between multiple metonymies (e.g. in bahuvrihi compounds – *cutthroat*, *разтури колиба* [razturi koliba, ‘demolish-hut’, *adulterer*]) or metaphonomies (e.g. in other types of exocentric compounds – *рогоносец* [rogonostes, ‘horn-wearer’, *cuckold*], *лицемеря* [litsemerya, ‘face-measure’, *act hypocritically*], *good-looker*, *cold-friend*, etc.) which characterises different word-formation niches interrelated by analogical extensions. The analysis contributes to fulfilling Langacker's (1987) desideratum that language-specific conventional imagery be described in detail.

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Salience in metonymy-motivated constructional abbreviated form with particular attention to English clippings

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I have claimed in some of my publications (e.g. Author 2009) that abbreviated constructional forms (at any level from lexemes upwards) are motivated by a part-for-whole metonymy (SALIENT PART OF FORM FOR WHOLE FORM) which maps a “salient” part of the full form onto the full form of a construction, thus allowing the abbreviated form to be recognised as a form of the construction, at least in the initial period of its emergence (see also Bierwiczzonek 2013, Radden 2005, among others). Examples include clippings such as *mike* for *microphone* and other types of abbreviations, including many contextual ellipses.

But what exactly is meant by “salient part of form”? In my presentation I report on unpublished research on the topic, with particular attention to *clipped lexical forms*. After carefully examining over two hundred clippings, I have identified the following *main* factors determining the saliency of a “natural” segment in a lexical form (some of these principles also determine the saliency of certain parts of the forms of syntactic constructions):

1) *Factors with a higher weight or relevance*: Initial position, ease of recognition and remembering, ease of pronunciation, ability to evoke the full form, ability to evoke the meaning of the lexeme, naturalness of the segment, brevity (the shorter, the more salient), energetic effect (Jespersen 1909-1949, VI: 551), and formal distinctiveness (from the full or shortened form of another lexeme).

2) *Factors with a lower weight or relevance*: Primary stress (not considered as a major factor by Jespersen (ibid.)), audibility, similarity to the full or shortened form of another lexeme, middle position, and final position.

The definition and application of these factors has been guided by a number of objective criteria to avoid subjectivity and guarantee consistency. This set of salience factors shows that salience in this context is *relative*, *scalar*, and *multi-factorial* (see Panther and Radden 2004, on *multiple motivation* in language).

The presentation will show that the combination of the above factors explains to a large extent the selection of certain segments over other likely candidates as conventional clippings. The set of salience factors has so far been investigated in twenty randomly selected English clippings and two or three “rival” segments in each case. For example, the segment *prof-* is selected over *-(f)essor* as a clipping of *gasoline* because it scores higher or much higher than its “competitor” on these highly weighted factors: “initial position”, “ability to evoke the full form”, “ability to evoke the meaning of the lexeme”, “brevity” and “energetic effect”, and on a lower-weighted factor like “audibility”, whereas *-essor* does not score higher than *prof-* on any highly weighted factor. In *-phone* vs. *tele-* for *telephone*, the key factor is “formal distinctiveness”, since *telegraph* already existed and *tele* might stand for *telegraph*.

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Image schemata in education: implications and entailments of varying construals of CLASS(ROOM)

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Foundational to Cognitive Linguistics is the assumption that the lexical choices made by language users not only convey content, but also construe that content in a particular way (Langacker, 2008, p. 43). Often these decisions draw on conceptual metaphors which are chosen because they “make intuitive sense”—that is, the ones that emerge from human experience—either cognitive, physiological, cultural, biological, or whatever” (Kövecses, 2010, p. 86). One effect of this choice of source domains is the highlighting of some aspects of the target concept and the hiding of others (cf. Kövecses, 2010, Lakoff & Johnson, 1980). This not only affects the way events/items are described, but carries certain entailments which are then available for reasoning about the object under discussion (cf. Deignan, 2010; Lakoff & Johnson, 1980; Oakley, 2007). Thus, lexical choices have real world consequences.

As an example of this phenomenon, the current study analyzes the construal of the concepts CLASS and CLASSROOM in a specially designed corpus of 601 newspaper and magazine articles that address the teaching of evolution to pupils in the U.S. public school system. The occurrences of the lexemes are first grouped according to the meanings accessed; for example, whether it refers to a particular room (grounded) or whether it activates a metonymic mapping of the activity to teaching or learning (ungrounded). Then, the metaphorical mappings are identified and classified. Finally, these metaphorical mappings are discussed in terms of the image schema they favor, specifically, action, motion or force schema, a triad recognized by Hart as particularly productive in researching event construal (2013). The analysis shows how these image schemas are not only motivated by experience, but may also affect attitudes toward teaching methodology and educational curriculum.

The applications of this project are twofold. For Cognitive Linguistics, it provides further support for a link between metaphorical representations, image schemas and their entailments. More generally, it raises awareness as to the pedagogical implications of the way the classroom is construed in written discourse.

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The role of exemplification in categorization processes: evidence from Japanese

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The aim of this paper is to show that exemplification plays a central role at a cognitive level in categorization processes. Specifically, we will examine the usage and functions of Japanese exemplifying particles, i.e., particles that provide lists of examples. Japanese shows a rich inventory of exemplifying constructions that ranges from dedicated non-exhaustive connectives (e.g., *-ya*, *-tari*, *-toka*, *-yara*, *-dano*) to synthetic general extenders (e.g., *nado*, *toka*).

The main function of Japanese exemplifying particles is to create open-ended lists of representative items. At the cognitive level, they immediately configure the presence of a set from which the examples are taken. As a consequence, they constitute an important linguistic tool that allows speakers to i) specify lexicalized categories and ii) make reference to those categories lacking a specific label but having a conceptual reality. The latter case encompasses what Cruse (1986:148) labels as “covert categories” and all those categories created for specific discourse goals (Barsalou 1983).

From a cognitive perspective, exemplification can be seen as a process in which the speaker constructs a specific category through an exemplar-driven inferential path (cf. the category “game” in Wittgenstein 1978:33). The speaker provides some exemplars of the category as a starting point to make associative inferences. In order to achieve that, she must choose the best examples; that is, those which express all the important features of the category (Taylor 1995:40). According to a context-based similarity reasoning, the hearer is able to infer other potential instances, resulting in the construction of a category. The items mentioned as exemplars can be of any kind (i.e. objects, actions, properties), but they have to be presented as a non-exhaustive list, in order to suggest the existence of other possible items.

In (1), the speaker uses *-tari* to refer to a more or less abstract category “things I will do in Osaka” providing what she considers to be best exemplars of it. Consequently, the hearer is able to infer other potential instances (i.e., other typical leisure activities), leading to the construction of the category. Similar cases are illustrated in (2) - (3).

The analysis of Japanese exemplifying particles will be based on data gathered through the following corpora: LCC Japanese plain text and Co-occurrences, Sketch Engine, JEC Basic sentence data. We will conclude by arguing that exemplification is the cognitive strategy chosen by speakers whenever the label of the category is lacking or fails because it is regarded as insufficient for the communicative purpose.

Examples

- (1) *Osaka-de kaimono-o shi-tari kankoku-ryoori-o tabe-tari shimasu*
Osaka-LOC shopping-ACC do-TARI Korean-meal-ACC eat-TARI do.POL
'In Osaka, I will do such things as shopping and eating Korean food.' (Banno 2000:215)
- (2) *Koohii-toka koocha-toka iroirona mono-ga arimashita*
coffee-TOKA tea-TOKA various thing-NOM exist.POL.PAST
'There were various things such as coffee and tea.' (Maynard 1990:106)
- (3) *Niwa-ni bara-no hana-nado-o ueata*
garden-LOC rose-GEN flower-NADO-ACC plant.PAST
'(I) planted roses and such in the garden.' (Okutsu 1974:160)

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The Metaphoric Conceptualization of Emotion through Heart-Idioms in Turkish

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This study explores the conceptualization of emotion that is reflected in the use of Turkish idiomatic expressions that include the term *heart*. As an internal bodily component and the central organ, *heart* is seen as THE SEAT OF EMOTIONS in many

cultures. On the other hand, different cultures conceptualize the world differently, including their inner world. Therefore, the mappings between the source domain of heart and the abstract concept of emotion may differ from one culture to another, resulting in different cultural schemas. Identifying the metaphoric and metonymic nature of heart terminology is significant in depicting the emotion schemas in Turkish, as one subset of cultural schemas. The aim of this paper is to analyze the Turkish heart words (*yürek*, *kalp*) to unveil how heart, as a part of the human body, is categorized and schematized in the minds of Turkish speakers, and to establish a cultural model for emotion. The idioms containing the words *kalp* and *yürek* are scanned from several contemporary dictionaries, and those that express, or are related to an emotion, are included in the corpus for research. The emotion typology of Ortony, Clore and Collins (1989) is adapted to the Turkish culture by the researcher, and is taken as the basis in determining the emotion types expressed in the heart-idioms with the help of independent raters. The Conceptual Metaphor Theory, defined and developed by Lakoff and Johnson (1980) and Kövecses (2000), is employed as the theoretical background for this study. Data are analyzed both qualitatively and quantitatively. The results reveal that the heart idioms provide metaphoric and metonymic conceptualizations for eighteen distinct emotion types (e.g. pity, fear, happiness, etc.) with different frequencies and percentages. Emotions are metaphorized in a way such as that they DAMAGE (distress, love, pity), FIRE/HEAT (distress, fear, pity, excitement), AGITATE (distress, pity), FORCE to move (fear, excitement) REFRESH (relief), and PRESSURE (anger) the heart, among others. The idioms, their underlying conceptualizations, and the sub-folk models involved in metaphors and metonymies are discussed for each emotion type in the study. The findings demonstrate that *yürek* and *kalp* are productive source domains in Turkish for their metaphoric conceptualization of emotion, as they constitute a complex cognitive-cultural model for emotion in Turkish, as well as revealing an “Idealized Cognitive Model” of the *heart* as the seat of emotions, which is composed of several metaphors and metonymies.

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Blends at the intersection of addition and subtraction: A usage-based approach

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Would you easily guess that a *negatude* is a *negative attitude*? It is likely that to unpack the blend *negatude* would be less difficult than to decompose the clipping compound *foco* into its constituents *food* and *court*. This difference can be explained by the fact that clipping compounds combine fragments of words which are too short to ensure the recognisability of their full counterparts (Gries, 2006, 2012). The present paper argues that the formal differences between blends and clipping compounds exemplify a more general morphological phenomenon, mainly, a continuum of formations driven by two counteracting processes: compounding and clipping. In particular, clipping compounds are likely to be formed from words that co-occur in speech comparatively frequently, as shown in Author (2014), while blends, on the other hand, tend to be formed from semantically and phonetically similar words in such a way that the source words remain recognisable (Gries, 2006).

This study demonstrates that the aforesaid formal differences between various structural types of blends and clipping compounds result in differences in the processing of these lexemes by language users. The results of a psycholinguistic experiment combining an identifying and production task with a lexical decision task show that blends with higher degree of formal transparency (e.g. *predictionary* ← *prediction* + *dictionary*) better prime their source words in a lexical decision task than blends with lower degree of formal transparency (e.g. *scoratorium* ← *score* + *moratorium*) or clipping compounds (e.g. *foco*). These results uphold the claims in Gries (2006, 2012) and shed light on the findings in Lehrer (1996, 2003) using a revised methodology and recent lexical data.

This research reveals psycholinguistically and cognitively relevant differences between items with different degrees of shortening of the original constituents. The explanation of the formal differences suggested in the present paper allows us to picture blends and clipping compounds as points in a continuum of morphological categories involving compounding and different degrees of clipping (which can also embrace three- and four-constituent blends, and acronymic formations). This conceptualisation of the word formation categories provides empirical evidence for the usage-based approach to morphological processes, discussed, for example, in Pierrehumbert (2001), Hay and Baayen (2005), Bybee (2006). The findings of the present research cover a wide range of facts related to the phenomenon of blending. These findings have implications for both descriptive and taxonomic studies in morphology, as well as for cognitive studies of word processing.

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Dutch impersonal passives with intransitive verbs: Atelic volitional acts and beyond

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Many Dutch intransitive verbs can occur in the impersonal passive construction. The construction figured prominently in Perlmutter's (1978) formulation of the Unaccusative Hypothesis, the idea that there are two classes of intransitive verbs: unergatives and unaccusatives (cf. [1] and [2], which reflect Perlmutter's acceptability judgments). Unergatives, mainly verbs describing volitional acts in Perlmutter's classification, are considered to be compatible with the impersonal passive; unaccusatives, which include change-of-state verbs, are claimed to be incompatible with the construction.

- (1) *er werd gedanst/gewerkt/geschreeuwd/gelachen* (unergatives)
there was danced/worked/yelled/laughed
'There was dancing/working/yelling/laughing'
- (2) **er werd gevallen/gestorven/gebloeid/gestonken* (unaccusatives)
there was fallen died blossomed stunk

Zaenen (1988) refines Perlmutter's account by adding that intransitive verbs in the Dutch impersonal passive are not just volitional, but also atelic (i.e. they do not have a 'built-in endpoint'). She furthermore observes that some verbs classified as unaccusatives, such as *aankomen* 'arrive', can in fact occur in the impersonal passive, cf. her example in (3), but only if they receive an atelic (in this case, iterative) interpretation.

- (3) *In dat hotel heb ik geen oog dicht gedaan,*
In that hotel I didn't sleep a wink,
want er werd de hele nacht aangekomen en vertrokken.
for there was the whole night arrived and left.

Two recent studies, Primus (2011) and van Schaik-Rădulescu (2011), argue that even more intransitive verbs are compatible with the Dutch impersonal passive. Unlike earlier studies, which were based on constructed examples, they present attested examples collected from the internet. Primus, for instance, provides such examples for all four verbs in (2). To account for these non-volitional verbs, she proposes, inspired by Dowty's (1991) proto-agent role, that the Dutch impersonal passive allows verbs that involve 'volition', 'sentience', or 'self-organized motion'. While Primus agrees with Zaenen (1988) that the construction is atelic, van Schaik-Rădulescu argues that some impersonal passives with telic verbs also allow a telic interpretation.

This paper evaluates these somewhat conflicting claims on the basis of a newly collected set of data, i.e. the result of Googling combinations of *werd* 'was' and a past participle, with the ultimate aim of providing a cognitive-grammar analysis of the construction. In accordance with van Schaik-Rădulescu's findings, the dataset includes several examples that are compatible with a telic interpretation, cf. (4), with only one cyclist falling. The impersonal passive construction therefore appears to be unspecified for telicity, rather than specified as atelic (*pace* Zaenen 1988 and Primus 2011).

- (4) *Ook in die laatste etappe werd gevallen, ... Rick Ottema reed ver vooruit en gleed pardoos uit*
'In the last stage there was falling too, Rick Ottema rode far ahead and suddenly slipped'
(<http://www.wielermeerdaagse.nl/index.php/voorbeschouwing>)

Secondly, the dataset reveals different frequencies for different verbs, including for those in (2): 103 unique instances of the impersonal passive with "*werd gevallen*", 13 with "*werd gestorven*", 1 with "*werd gebloeid*", and 0 with "*werd gestonken*". While such frequencies have not been addressed in earlier studies, the present paper argues that they can help to determine the range of verbs compatible with the construction.

**Ageing and cognitive linguistics:
What naming practices can reveal about underlying cultural conceptualisations**

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In 1994, Alexandre Kalache was appointed as Director of the World Health Organization's Health of the Elderly program. His very first act was to change the name of the department to "Ageing and Life Course Programme". Kalache was convinced that the label *elderly* carried negative undertones, as it "put a segment of the population in a box" (May 2012: 9). *Ageing*, however, seemed a more appropriate term because – in Kalache's view – it felt more "active" and included the whole society (ibid.). This simple act of name change casts the spotlight on the commonplace observation that euphemisms have a rather short lifespan, as the name – over time – "tarnishes" the concept and new euphemisms need to be constantly generated.

One of the most evolving areas of euphemisms in present-day society is ageing (Allan and Burridge 1991). As Kalache (2012) explains, baby boomers are now reaching retirement age, and wish to remain active and productive for many more decades – thereby redefining the concept of ageing considerably. Following Kalache's claims, our main hypothesis is that ageing is currently undergoing a major reconceptualization, and that this process can be best analysed within a cognitive linguistic framework of the euphemistic (figurative) words and expressions used in connection to ageing. Cognitive linguistics has been especially successful in the description and analysis of cultural conceptualisations (Sharifian 2011) and figurative language use (Benczes 2006a), including euphemisms (Benczes 2006b). We will present the first results of a large-scale research project on the conceptualization of ageing in Australian English, funded by the Australian Research Council. One of the major aims of the research is to explore the conceptual metaphors and cultural schemas of ageing (such as SUCCESS IN AGEING IS INDEPENDENCE), as well as the cultural categorisations of ageing (who is *old*, *elderly*, *senior*, etc.). As part of this project, we investigated the naming practices of aged care facilities in Melbourne, Australia. Although such an analysis seems to be an obvious choice in order to better understand the process of linguistic – and hence conceptual – change surrounding a taboo subject such as ageing, very little has been done within this field on both the international and the Australian level.

By comparing the naming strategies of 2013 with those of 1987, we have found that the 2013 sample showed a much greater degree of euphemistic usage as compared to the 1987 data, by using a wider array and a larger proportion of appealing names. Regarding the 2013 sample, there was a wide selection of names typically revolving around either the FAMILY metaphor, which conceptualized the facility as an upper-class family home, as in the case of *manor*, *hall*, or *gardens*, or the VACATION metaphor, which viewed the facility as a holiday resort, as in the case of *lodge*, *view*, or *villa*. These two conceptualizations cater to essentially two different needs or requirements when it comes to an aged care facility. The FAMILY metaphor emphasizes community and permanence, while the VACATION metaphor stresses individuality and transience.

These findings seem to corroborate the idea of "successful ageing", as first introduced in 1987 by Rowe and Kahn: the naming practices of the 2013 data have generally placed the negative associations of old age (such as decrepitude, dependence and loneliness) into the background by focusing on the traits that are associated with successful ageing – such as emotional well-being, active lifestyle, and social and community involvement. In a youth-oriented culture that eschews direct reference to death and the dying process, it is not surprising to see that its aged care facilities tune down (perhaps even obliterate) the negative characteristics of ageing with their strong hints of retirement, lifestyle choices, friendships, leisure and the like.

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Nominal paradigmatic gaps in Russian: what makes language fail

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Paradigmatic gaps are interesting from the cognitive linguistics perspective as a very non-prototypical language phenomenon. When using language, we rely on grammar, which normally allows to generate and understand any form we need. What makes us unable to use certain forms?

The specific question I address in this paper is which factors affect the emergence of a genitive plural gap in Russian nominal declension. It is known that one of the key factors is the accent shift (Es'kova 2011/1989). Virtually all Russian defective nouns have stress on the ending in all forms, except gen.pl, which has a null ending, and thus the stress automatically shifts to the stem. It can be assumed that speakers are unwilling to introduce a new (i.e. stressed) morph of an existing morpheme, preferring instead a gap (Pertsova 2005). This explanation, however, is not sufficient, since not all nouns from this accent paradigm are defective. Many other factors have been proposed, but there has been little systematic investigation of their actual contributions, which I do in this paper.

When compiling a list of defective nouns, I avoid relying on dictionaries and turn to corpus data instead. First, I find out what the distribution of the relative frequency of the gen.pl. form looks like. Using this knowledge, I select a reference value and extract from the Russian National Corpus all stress-shifting nouns that have lower relative frequency of gen.pl (283 nouns, but only for 17 the reliable estimates can be made, others are not frequent enough). In order to control and complement the corpus data, I also perform an experiment where speakers have to produce a gen.pl. from a given noun and estimate how certain they are of the correctness of the form (30 participants, 48 survey items). The results make it possible to evaluate the defectiveness of a given noun.

Unlike most earlier studies, I do not attempt to explain each gap by a single rule. Instead, I assume that gaps result from stochastic processes of language usage and learning (to what extent gaps are synchronic phenomena, and to what extent they are simply learned (Sims 2009) is beyond the scope of this paper), influenced by many factors at once.

I focus on five potential factors. The statistical analysis of my data shows that monosyllabicity, semantic weirdness (in this case equivalent to noun being rarely used in plural, i.e. being close to a singular tantum) and token frequency of the noun turn out to be significant predictors, while homonymy with other forms (which is often claimed to be an important factor) does not. The fifth, highly significant factor (which, to the best of my knowledge, has never been proposed before) requires a more detailed explanation. Russian nouns with stems ending in a consonant cluster often have mobile vowels inserted into this cluster whenever the form has a null ending, as in gen.pl. (*čášk-a* 'cup-NOM.SG'; *čášk-ø* 'cup-GEN.PL'). The reason is that at some stage Russian had the so-called yer-vowels in these clusters that disappeared in some phonological contexts, but were kept in others. Surprisingly many of the defective nouns turn out to end in a consonant cluster that is atypical for gen.pl. (as follows from corpus data) and does not get a mobile vowel inserted (*karg-á* 'hag-NOM.SG'; *??kárg-ø* 'hag-GEN.PL'). The reason for the latter is that most of these nouns are loanwords. Though very old and well-adapted to Russian, they still lack a yer in their history that could have generated a mobile vowel. Faced with the perspective of uttering a gen.pl. form with an unusual stem ending (which is also the absolute end of the word and thus, as my results suggest, probably gets a special status), and being unable to split it by a mobile vowel (some experiment subjects tried to do that, but felt uncertain about these forms), speakers try avoiding it.

A tentative answer to the question asked in the beginning can be formulated as follows. When default rules require generating a form that speakers are uncertain about, and there is no cue about which non-default rules can help out, speakers can choose to avoid the form. It is remarkable how form-and-norm-driven this process is: the cost of not having a convenient means to express thought seems smaller than of using an unfamiliar and potentially incorrect (but understandable) form.

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How greedy are linguistic profiles?

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Profiling, or studying language items by their distributions in corpora has recently become a prominent method in usage-based linguistics (see, for instance, Gries and Divjak 2009, Janda and Lyashevskaya 2011, Kuznetsova 2015). In this paper, we address several general methodological questions relevant to various profile types, as well as to other distributional studies of a similar kind.

A single-feature profile consists of a set of pairs {feature value; relative frequency of this value}. If, for instance, we decide to build a grammatical profile of the Russian noun *roditel'* 'parent' (using data from the Russian National Corpus), and the only grammatical category that is relevant to us is the number, the resulting very simple profile will look like Table 1.

Number	Relative frequency
Singular	5%
Plural	95%

Table 1. A grammatical profile of the Russian noun *roditel'* 'parent'.

If we decide to include the category of case, the number of rows in the profile would increase to 12 (sg. nom; sg. gen; sg. dat etc.). If we decide to build a constructional profile instead of a grammatical one, then instead of grammemes the first column would contain different constructions that the given item can occur in. In a multi-feature profile we could have both types of information at once (represented by two columns). The numerical part of a profile is thus a vector (or a matrix) that could be used for various operations (probably the most important being the comparison with other profiles).

One important question about profiles is how greedy they are, or how many examples one needs to build a reliable profile. This is crucial both if profiling requires manual annotation (in order to estimate the necessary amount of work to be done) and if it is done completely automatically (in order to estimate if the corpus used to build profiles is large enough). We propose *profile stability* as a measure of how reliable the profile with a given sample size is (Berdičevskis and Eckhoff). The intuition behind this measure is as follows: if we build profile P_1 of item X using sample A, and then build profile P_2 of X using sample B, then we expect that P_1 and P_2 will be very similar, i.e. that they reflect the real distribution of X across a given feature.

In order to estimate the stability of a given profile type in a given corpus for a given sample of size n , the following procedure can be used: extract from the corpus all items with frequency no lower than $2n$. For every item, draw two non-intersecting samples of size n ; build a profile using each of these samples; calculate the similarity of these profiles (we discuss advantages and drawbacks of several similarity measures). The significance of the result can be increased by cross-validation. The higher the (average) similarity is, the closer the two profiles of the same item are, and the higher the profile stability is. Repeating this procedure for different values of n , one can find which sample size is required for a desired level of stability. Results can be averaged across items or analyzed separately for every item (or group of items), depending on the nature of the profiles and research questions.

We report the dependence of stability on sample size for several profile types for Russian. Unsurprisingly, we show that the more granular a profile is, the larger samples are required. In many cases, high stability (>90%) can be achieved only with sample sizes higher than 100. However, we show that even small-sample profiles still contain some useful information that can be extracted with due caution. One way to do that is what we call group-level approach: instead of working with single infrequent items, pose research questions and gather data about groups of these items. We illustrate this approach with a diachronic case study of a morphological class of Russian verbs that are gradually drifting from aspectually neutral to aspectually marked.

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A Construction Grammar approach to irony

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Traditional as well as more recent models of irony conceptualise the ironic utterance as a negation or rejection of the surface proposition while communicating something else. These views imply that the interpretation of irony always depends on context since otherwise the incompatibility between utterance and context need not be obvious. However, there are quite a few cases in which the ironic interpretation does not rely on context but is rather stored in the long-term memory of the language user. We call these examples 'constructional ironies'. Examples include the following:

- (1) ANGEL -- Adam, I don't mean to meddle in your affairs. After all, I'm only the administrator, not the stage director, but I think you should make a greater effort. Lili s a splendid person. ADAM -- Now you're suggesting it's my fault. **Some friend you are.** Don't you realize she's determined to have everything her way? (From behind the scenes in Eden, COCA)
- (2) With all due respect to Blake, they may say, "**A Michelangelo he's not.**" Contributing to the formation of style, there are also what used to be called the humors -- or one's general temperament -- through which an artist's creations are filtered. (Style and individual talent, COCA)

We claim that certain more or less fixed idiomatic syntactic constructions such as *Some friend you are* in (1) are conventionally associated with irony. In fact, all five occurrences of this construction in the Corpus of Contemporary American English (COCA) are unambiguously ironic. Note that the ironic meaning is non-compositional, i.e. none of the elements in the construction signify that this is to be understood ironically. Upon *first* hearing this construction, the hearer actually has to resort to context incompatibility, as mentioned before. The fact that the construction exhibits very marked object fronting certainly helps in the interpretation (though, of course, not all utterances with fronted objects are necessarily ironic). Usage-based construction grammar then assumes that after hearing this very marked construction with its ironic interpretation for a few times, speaker/hearers can and will register this as a more or less fixed, complex construction signaling irony (with a conventional form-meaning pairing) in their construction, i.e. their constructional inventory. Example (2) shows a more variable, schematic construction: *A(n) NP he/she is not*. Again, the meaning conveyed is unambiguously ironic. The form side, however, shows flexibility in the variable N slot (*Michelangelo, Einstein, racer...*), the corresponding determiner, in the subject slot (he/she/they 'a soccer team they're not') and whether the copula and/or the negative particle is cliticized. Nevertheless, despite all flexibility, this fronted object construction also non-compositionally signals irony. It can also be learned as such and thus becomes independent of context. These considerations show that ironic utterances can be used and understood independent of context and a linguistic theory of irony must account for that. We propose that in the case of constructional ironies, the ironic meaning that arises is eventually not triggered by the incongruity between utterance and context (as has been assumed for novel ironies) but between utterance and stereotypical (frame semantic) knowledge of a concept evoked by the construction in question (e.g. friendship in (1), Michelangelo in (2)). When used frequently, the activation of these concepts becomes automatized and the construction can gradually lose its former ironic character.

In conclusion, this paper shows and argues that irony is not only a joint communicative activity depending on context, but is also encoded in the linguistic system itself. Construction Grammar as a usage based model capturing non-compositional meaning offers itself as a very helpful framework for this kind of analysis.

Motion event descriptions and Bilingualism: On the influence of language mode on French-German bilinguals' spatial language

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The investigation of the description of motion events has yielded evidence for typological differences across the languages of the world with respect to whether and how specific semantic components are mapped onto verbs, verb arguments, and adverbials (Talmy, 2000). Whereas in some languages, such as French or Spanish, the path of motion is mapped onto the verb, this component is often expressed outside the verb in English or German utterances (in so-called 'satellites', according to Talmy, 2000). Conversely, many authors claim that the expression of manner of motion is systematically mapped onto finite motion verbs in English or German, whereas it is either absent or optionally expressed in adverbials in French, Spanish or other Romance languages (see examples 1 and 2).

- 1) sie rennt aus dem Bus
she runs out-of the:DAT bus
- 2) elle sort du bus en courant
she exits the bus running

However, as Slobin (e.g. 2006) argues, these distinctions are not categorical but rather clines, and it is important to emphasize that there is considerable intra-language variation. From the point of view of bilingualism research, the question arises how bilinguals who master two typologically different languages handle these different preferential patterns. Based on previous work, we expect at least some cross-linguistic influence or convergence in the production of fluent bilinguals (see e.g. Pavlenko & Jarvis, 2002). From research on language mode (Grosjean 2001), we hypothesize that the level of activation of two typologically different languages respectively can have an influence on the usage patterns.

To investigate this question, motion event descriptions in German and French by bilinguals were elicited in a repeated measures design. The data from 40 participants describing 27 video clips are analyzed. In the monolingual condition, all stimuli are described in German. In the bilingual condition, the critical stimuli showing self-propelled motion are described in German, whereas 23 fillers are all described in French. The analyses only focus on the German descriptions. A within-subject design comparing descriptions across the two language modes is carried out. Examples 3 and 4 show responses of the same participant describing the same stimulus in the two language modes respectively. In example 4 (bilingual mode), the participant expresses manner in a gerund ("drehend") whereas in the monolingual mode (3), manner is mapped onto the finite verb (as in example 1).

- 3) Die Frau tanzt aus der Kirche hinaus participant Lo_E_B (monolingual mode)
the woman dances out-of the:DAT church out
- 4) Sie kommt drehend aus der Kirche raus participant Lo_E_B (bilingual mode)
she comes turning out the:DAT church out

Statistical analyses of the data using logistic linear mixed models show that this tendency to refrain from using finite manner verbs when boundary crossing is predicated is robust. Moreover, we observe that path verb usage in German is increased in bilingual mode, as path verbs would be the preferred choice in French. The results are discussed in the light of the general effort in current motion verb research to explain more variance in the usage patterns of participants within and across languages and varieties.

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Speak of the Dead: Semantic Domination and Death Taboos

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Death taboos remain one of the strongest and most strictly enforced social taboos (Fernandez, 2007). Mortuary linguistic products, such as obituaries, are carefully constructed using euphemism and metaphor to preserve cultural taboos on death and reinforce normative comprehensions of dying and grief. Because of the fundamentally metaphorical nature of both language and thought I argue that linguistic taboos, like the death taboos surveyed in this data, not only reinforce social norms, but also place boundaries on our perceptions, conceptions and reactions to the world in which we function.

The objective of this ongoing study is to analyze metaphorical phenomena in French language obituaries in Montréal and Paris in order to explore expressive, cultural and conceptual gaps (or lack thereof) between Standard French and Québécois linguistic production and to explore the implications of these gaps in terms of semantic domination (Boltanski 2011) and the comprehension and experience of dying and bereavement. This study examines obituaries from four public newspapers in France and Québec. Obituaries inform reality in many ways through their role as both “socially-oriented practice and discursive text” (Fernandez, 2007: 9). These simultaneous texts/practices function to reinforce forms of “social cognition” (Van Dijk, 1993: 251) and predispose speakers to certain realities by simultaneously accessing and influencing elements of local and global imaginaries (Orgad, 2012).

The comparison I furnish evaluates the extent to which language use in these obituaries demonstrates formulaic conceptions of experiences of death. These conceptions influence what we perceive as real and how we act upon our perceptions (Kovecses, 2006). For example, in instances of the DEATH AS A VOYAGE metaphor the deceased is not only referred to as “passing on,” but those surviving the deceased will physically prepared the dead body for ‘departure’ (e.g. final sacraments, surrounding them with ‘loved ones’ to ‘see them off’).

This research is unique in the field of metaphor studies because it concentrates on variation within a single language in different linguistic communities. Methodologically, this study also makes use of a unique blend of techniques and theory from cognitive linguistics, anthropology and cultural studies. By approaching the data through textual analysis and ethnographic fieldwork I am able to explore the role of metaphor in creating particular representations in obituaries and the role of these representations in the comprehensions of social actors. I identify the use of fixed expressions and dominant deep metaphors between the two linguistic communities. However, the structure and focus of French and Québécois obituaries differs significantly and suggests contrasting comprehensions and social reactions to death.

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Non-actual motion sentences in Swedish, French and Thai

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Sentences such as (1) and (2) have been discussed in terms of “subjective motion” (Langacker 1987), “fictive motion” (Talmy 2000) and “abstract motion” (Matlock 2010).

- (1) *The mountain range goes from Canada to Mexico.*
- (2) *The mountain range goes from Mexico to Canada.*

While both (1) and (2) represent the spatial extension of a certain mountain range, the sentences are not synonymous. It has been argued that such expressions have a close experiential link to actual motion, and that an implicit, “subjective” or “fictive” experience of motion is part of their meaning (Matlock 2004). This semantic difference is typically attributed to some sort of “mental simulation”. Such an explanation, however, is too general, as it conflates different kinds of perceptual and imaginative experiences, or motivations (cf. Blomberg & Zlatev 2014). Following the argumentation presented in the latter, we analyze the phenomenon as *non-actual motion* (NAM).

To date, work on NAM has been almost exclusively limited to English with only a few cross-linguistic comparisons (e.g. Matsumoto 1996; Rojo & Valenzuela 2003). In the present study, we focus on NAM-sentences in Swedish, French and Thai, which have been regarded as typical examples of three language types in motion event typology (Slobin 2004): verb-framed (French), satellite-framed (Swedish) and equipollently-framed (Thai).

To investigate NAM-sentences in these three languages, a picture-based elicitation tool was designed. Following a 2x2 design, the pictures included figures that *afford human motion (+afford)* (e.g. roads) and figures that *do not afford human motion (-afford)* (e.g. fences); crossed with this, the figure extended either across the picture from a *third-person perspective* (3pp) or from a *first-person perspective* (1pp). 16 Swedish, 13 French and 14 Thai speakers were asked to describe the pictures in one sentence. All picture types were predicted to elicit NAM-sentences, but the pictures which combined the parameters *+afford* and *1pp* were expected to have the highest proportion of NAM-sentences, since they combined several motivations, while the other types of pictures targeted one or the other motivation more selectively.

The results were supportive of both predictions: all picture types elicited NAM-sentences in all three languages. In all three languages, the combination [+afford, 1pp] evoked most NAM-sentences. Even though speakers of all three languages predominantly produced NAM-descriptions, they did so with clear language-specific constraints. Swedish speakers mainly used generic motion verbs, French speakers used Path-verbs and Thai speakers used serial-verb constructions with the Manner-verb omitted. This suggests that the difference between actual and non-actual motion is semantically marked in all three languages. NAM-descriptions use the language-specific resources for expressing actual motion, but with semantic elements of actual motion downplayed or demoted.

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Relationships as gestalts: Kinship and space in Otomí

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With spatial adpositions, verbs and case affixes, languages provide speakers with community-shared categories for spatial relationships, and while these categories differ crosslinguistically (Levinson et al. 2003), they appear to share the property of presenting spatial configurations as asymmetric figure-ground relationships (Talmy 2000). The prepositions *in* and *around* thus both denote containment, but assign different figure-ground roles (*the castle is in the park* vs. *the park is around the castle*).

Categorizing relationships is also central in the domain of kinship. Here, too, languages tend to profile one part of the relation and presuppose the other, as with the term *grandmother* (profiling the role of the elder participant in a grandmother-grandchild relation). However, some languages present repertoires of symmetric kin terms such as Binijun Gun-wok *gakkak* ('mother's mother', '(woman's) daughter's child', Evans 2006) or dyad terms such as Mianmin *lum* ('father and child', Evans 2006) that profile the gestalt of the relationship type without differentiating participants' roles within it.

As for spatial relationships, symmetric linguistic constructions appear to be rare, and Talmy (2000: 180ff) suggests a basic asymmetry in spatial conceptualization. Nevertheless, with a set of positional gestalt verbs, the Mayan language Tzeltal presents an exception to this presumed universal (Brown 1994), and maybe Tzeltal is not exceptional. Here we present data from an Otomanguean language, severely endangered Acazulco Otomí, where 10 speakers' responses to the Topological Relations Picture Series (Bowerman & Pederson 1992) manifested widespread use of gestalt verbs neutral to the different roles of the parts in spatial configurations. The speakers often employed either the symmetric containment verb 'o ('be in a containment relationship with', i.e. 'in or around') or a construction with the reciprocal verb *ntx'o* (lit. 'walk together with each other'). Interestingly, *ntx'o* also indicates reciprocal kinship between siblings or cousins, and this suggests a shared conceptualization of reciprocal spatial and kin relations in Otomí, which may have been more pronounced historically: According to reconstructions, symmetric kin terms such as *to, 'part of a grandmother-grandchild relationship' were prevalent in Proto Otopamean (Merrifield 1981).

Together, historical linguistics and fieldwork in semantic typology thus point to an Otopamean cross-domain pattern of viewing relationships as symmetric gestalts that would differ markedly from the figure-ground configurations usually supposed to be universal in spatial conceptualization.

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Cognitive approach to the role of context in discourse construction¹

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The theoretical study of context has long been influenced by three major approaches: sociological, linguistic, and cognitive. The tendency to view context within the framework of sociology can be traced back to the works of anthropologists who proposed an idea that there is a link between social factors and the way human beings speak (Malinowski 1989). The term “context of situation” was given special prominence by M.A.K. Halliday who argued that the selection of linguistic form for an utterance is partially determined by features of the extra-linguistic context (Halliday 2003). Cognitive research to context has dramatically influenced the social and linguistic approaches re-defining the nature of context. As a field of research, cognitive approach to context has been inspired by the cognitive methodologies which have established themselves since the 1980s in Croft (2004), Evans (2006), Lakoff (1987), Langacker (1987), Talmy (2000) in the USA, UK and Boldyrev (1995), Demyankov (1995), Kubryakova (1981) in Russia.

From this perspective meanings are not fixed; nor are they limited to cultural backgrounds of representatives of different cultures as is believed in some “culture-shaped” approaches to interpersonal interactions (see, for example, Ting-Toomey 1999). They are evolved within the framework of contexts as knowledge structures (compare: mental models in: Dijk (2009; 2010) that reflect cognitive experience of language users stored in conceptual-and-thematic domains, such as: HUMAN BEINGS, ARTEFACTS, NATURE, WILDLIFE, SPACE, TIME (Boldyrev 2011; 2012; 2013; 2014). These domains and the amount of knowledge they encompass depend on the type of experience a language user acquires in a particular sphere of life, being better experienced or adapted to professional sphere rather than household activities, for example.

The main purpose of the talk is to illustrate contexts as knowledge structures based on everyday experiences, sensory and rational by nature. This universal characteristic of contexts established by individual experience on cultural premises does not depend on the nature / outcome of the mental activity in the process of discourse construction: the contextual model of mind is clearly seen in numerous examples of different modalities, modes and languages, such as on-line interactions, written texts, ads and others, constructed in either English or Russian. For example, in the conversation (see, ‘The Remains of the Day’ by Kazuo Ishiguro) Lord Darlington asks Stevens to explain “the facts of life” to the young man who is getting married (examples will be given in the talk), the context of LOVE / FEELINGS and EMOTIONS / INTIMATE MATTERS is activated by the context of INSECTS / BIRDS / PLANTS (interrelation of sensory and rational experience). In the Russian advertisement of a “two tin can family” looking for a rubbish bin to rent, the context of ORDER / NORM / RECYCLING is activated by the context of FAMILY UNION / HOME / HOUSE (interrelation of sensory and rational experience).

In the talk, these theoretical issues and related empirical evidence will be reviewed, while also addressing the implementation of the method of cognitive-discursive interpretant analysis (Boldyrev, Dubrovskaya 2015) that specifies the structure of context.

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Information Wars: Cognitive Paradoxes

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Military conflicts, like one between Russia and Ukraine now, are often accompanied by intensive information warfare on both sides. Its mission is to create such cognitive construal of the world [Taylor, 1995] that the country policy looked convincing for their own citizens and other adepts of their views. The most efficient engine for such mission is a meme [Dawkins, 2006]. Its main feature similar to its biological equivalent is the ability to adjust itself and to develop in the cultural medium, which it interferes. Multimedia fostering various types of interactivity (Web 2.0 and 3.0) make the role of the meme in the information warfare grow dramatically. In the construal of the world, from a descriptive functioning unit used to name and explain the meme transforms into a prescriptive device to control the behavior of the audience.

The verbal equivalent of the meme in most cases is a separate lexical unit, which implements the lexical concept [Evans, 2009] in terms of the theory of lexical concepts and cognitive models (LCCM). As it postulates, each meaning of the word may be considered a “trigger” providing a passage to a certain domain or domain matrix [Langacker, 2008].

As the data of more than 60 American, British, Russian and Ukrainian news blogs testify, the most stable memes in this information warfare are: *Benderovtsy* or *Banderlogs* (the nickname of the proponents of the European united Ukraine), *Ukropy* (the Russian nickname of the Ukrainians literally translated as ‘the dills’), and *Colorados* (the nickname of the proponents of Ukrainian federalization, i.e. annexing the part of Ukraine by the Russian Federation). It is evident that the majority of the mentioned memes-lexemes are telescopic words, i.e. the units coined by way of fusing two word-stems with a consequent merge of their meaning. Thus, at the conceptual level, instead of one domain or a domain matrix, a meme verbalized by such a lexeme provides a passage to a complex conceptual structure described in terms of the theory of conceptual integration [Fauconnier & Turner, 1998].

The paradox of this nomination process is often concluded in the fact that the quality or another feature inherent in the nominated object is transformed in the blend. For example, the meme *Benderovtsy* originates from the name of Stephan Bandera, a Ukrainian political activist, who collaborated with the Nazi during WWII. However, this nickname is often misspelled as *Benderovtsy* or simply *Bendera* instead of *Banderovtsy* since in this nomination there is an interference of another name, that of quite a popular Soviet fiction character of 1920s, Ostap Bender, a rouge in the spirit of O’Henry’s Andy Tucker. Thus, the input space containing selected prototypic concepts FASCIST and NATIONALIST blends with another input space containing a selected concept ROUGE to create a blend BENDERA. This blend verbalizes the meme, the name of a proponent of nationalism in Ukraine, who implements the mentioned qualities.

The cognitive underpinning of the nomination processes is in the focus of the proposed research.

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Exploring the history of Reaction Object Constructions. A collostructional analysis.

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As is well known (see Visser 1963-1973:I §132 ff; van Gelderen 2011, among others), in the course of history a great number of English intransitive verbs have undergone a process of augmentation of their argument structure, with their verbal territory being extended by the acquisition of way-objects (1), cognate objects (2), and reaction objects (3-4):

- (1) Convulsed with laughter, she **giggled her way** up the stairs (Israel, 1996: 238).
- (2) He **died a violent death** (Visser, 1963-1973:I, §423)
- (3) In my heart nevertheless there was a reserve of wonderment at his apparent astuteness and resolution, and my old love for him **whispered disbelief** in his having disgraced me. (CLMET3.0 1870, Meredith; *The Adventures of Harry Richmond*)
- (4) Mr Chester waved his hand, and **smiled a courteous welcome**. (CLMET3.0 1841, Dickens; *Barnaby Rudge*)

The focus of this presentation will be on structures like (3) and (4), where an originally intransitive verb —particularly manner of speaking verbs, but also verbs of gestures and signs— is followed by a nonsubcategorized object that expresses a reaction or an emotion. The result of this combination is a new form-meaning pair consisting of a SUBJ_i, an (INTR) V and an OBJ_i (expressive message) whose meaning is to 'express X by V-ing', as in 'he expressed his disbelief by whispering' and 'he expressed his welcome by smiling', in (3) and (4) respectively.

This kind of structures, referred to henceforth as Reaction Object Constructions (ROCs), have been approached synchronically by linguists such as Felser and Wanner (2001) and Martínez-Vázquez (forthcoming), either in relation to other types of nonsubcategorized objects such as the way-object (example (1)) and the cognate object (example (2)), or as a linguistic phenomenon in its own right. From a diachronic perspective, however, ROCs have received very little attention to date, being only mentioned in passing by Jespersen (1909-1949:III §12.24), and Visser (1963-1973:I §132 ff) in their monumental historical grammars.

The purpose of this paper is therefore to delve into the origins and development of the ROC from a Construction Grammar perspective by drawing on data from Late Middle English onwards. My findings so far show that while isolated examples can be found since as early as the 1400s (example (5)), the ROC is essentially a Late Modern English development.

- (5) c1400 *Laud Troy Bk.* 13520 And he myȝt not him selff helpe; **His sorwe** coude he to no man **ȝelpe**. (OED, s.v. *yelp*, v. II. †2. †b)

On a closer look, the data further reveal that the frequency of the construction varies depending on the type of verb involved (whether it involves verbs of speaking or verbs of gestures and signs). More specifically, it will be shown via a collostructional analysis (Stefanowitsch and Gries 2003) that manner of speaking verbs such as *mutter* and *murmur*, not only rank higher in raw frequency than verbs of gestures and signs, but also are the most attracted to the ROC.

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Parentheticals – theticalization, grammaticalization and the role of constructional slots

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This paper deals with parenthetical clauses, cf. examples (1)-(3) below. In (1) and (2), *I think* is clearly parenthetical, and in (3), *I think* may be read parenthetically:

- (1) *You are wrong, I think,*
- (2) *You are, I think, wrong,*
- (3) *I think you are wrong.*

The paper takes its point of departure in two recent accounts of parenthetical clauses, pointing out problems in both: 1) Boye & Harder's (2007) account focuses on the grammaticalization of parenthetical, originally superordinate clauses, but fails to capture the development from initial position (as in (3)) to non-initial position (as in (1) and (2)), as well as the fact that many parentheticals do not undergo grammaticalization. For instance, in (4), *he very much regretted to say* may be used parenthetically as an inquit, but is rather infrequent and highly unlikely to develop into a grammatical expression.

(4) *But the encouragement given to the formation of those companies, he very much regretted to say, had not been so cordial in all respects as he thought it ought to have been.*

2) Kaltenböck, Heine and others' account in terms of Thetical Grammar (e.g. Kaltenböck et al. 2011; Heine et al. 2013) focus on the development from initial position to non-initial position, but fails to account for the possible grammaticalization of parenthetical clauses.

This paper proposes a synthesis which incorporates the main insights of these two accounts while amending their weaknesses. The Thetical Grammar approach is invoked in order to account for the development of non-initial parentheticals in terms of *theticalization*, while Boye & Harder's theory is employed to account for possible *grammaticalization* of parentheticals. It is argued that constructional slots, which are ignored in both approaches, play the important role of bridging the gap between theticalization and grammaticalization. Subsequently, it is argued that the synthesis proposed allows us to be precise about the status of sentence adverbs with respect to the lexicon-grammar distinction.

The proposed analysis is compared to van Bogaert's (2011) analysis according to which parenthetical clauses grammaticalize as a schematic structure arising through generalization over individual items such as *I think*, *I believe*, etc. It is argued that van Bogaert's analysis takes a position in-between the present one (based on constructional slots) and that of Boye & Harder (based on individual items), and that it shares problems with the latter analysis.

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How heavy are things in Croatian and elsewhere? A contrastive-experimental study

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In this presentation we study the entrenchment of the conceptual metaphor DIFFICULT IS HEAVY in Croatian and other languages. This metaphor, considered to primary (often named DIFFICULTIES ARE BURDENS), results from recurring and co-occurring embodied experiences (Grady 1997) and conflation (Johnson 1997) of sensorimotor or perceptual domain (muscular exertion) and conceptual domain or subjective judgment of difficulty. The experiential basis for this metaphor is the discomfort or disabling effect of lifting or carrying heavy objects (Lakoff and Johnson 1999). As is usual within CMT (in accordance with Gibbs 2005 for example), we do not claim that there is some abstract or objectively similar set of attributes existing between literal and metaphorical concepts, such as our understanding of difficulty in terms of heavy physical weights (contrary to Murphy 1996). However, we assume that the concepts from these two domains are related to one another by virtue of how people are physically constituted, their cognitive abilities, and their interactions with the world. We build on the results of previous psycholinguistic (Pelosi and Macedo 2007) and psychological (Kouchaki, Gino and Jami 2014) experimental studies of the associations between physical experience of weight and different emotional or cognitive experiences.

A number of studies have documented connections between bodily experiences of weight and thought, and there is every reason to believe that we might expect a robust association between the physical experience of weight and the experience of cognitive difficulty. We therefore performed a pilot experiment in which subjects (university students majoring in Croatian, N=40) were asked to solve anagrams of variable degree of difficulty while carrying backpacks of the same weight. Afterwards they were asked to assess the weight of their backpack. Generally, our hypothesis that the half of the subjects that solved more difficult anagrams would tend to assess their backpack as heavier than their actual weight was confirmed. However, the effect was not as strong as expected. This experiment will be repeated on comparable populations speaking a different mother tongue (Hungarian and English). We also plan another experiment in which all the subjects will have to solve the same task carrying backpacks of variable weight. Because of the congruency between the weight and cognitive difficulty, we expect extra weight to intensify the experience of cognitive difficulty. We predict that carrying a heavier weight would make people judge tasks to be more difficult, i.e. cognitively more demanding.

This is all the more interesting as Croatian and Hungarian exhibit a pair of antonymous adjective such that both members are polysemous between 'heavy' and 'difficult', and 'light' and 'easy', respectively. This contrasts with English, where the physical heaviness and cognitive difficulty are kept apart (*heavy* vs. *difficult*, and *light* vs. *easy*).

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Hungarian morphological constructions in *-ék* between homogeneous and heterogeneous construal

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The focus of this presentation are Hungarian complex words terminating in *-ék*, as in (1-2):

- (1) **Gundelék** *bérelték az éttermet...*
Gundel-ÉK rented DEF restaurant-ACC
'The Gundels rented the restaurant'
(2) **Kormányék** *bejelentették*
government-ÉK announced-3PL...
'government members announced...'

The construction terminating in *-ék* in (1) is considered by Moravcsik (2003) to be an instance of the so-called associative plural, distinct from regular, additive plurals. Associative plurals normally consist of a personal noun and a marker (a dedicated suffix, a clitic, a pronoun, regular plural affix, etc). In semantic terms, they are characterized by referential heterogeneity and reference to groups, their meaning can be roughly described as 'X and other people associated with X', thus differing from additive plurals characterized by referential homogeneity. In Hungarian grammatical tradition, only the type of construction illustrated in (1), referred to as heterogeneous plural, has been discussed in detail, while the type illustrated in (2) has been more or less completely overlooked. The construction in (2) also denotes a group of people characterized by a high degree of homogeneity. What is more, such constructions often carry derogatory, ironic or sarcastic overtones.

In light of the observed distributions a number of research questions crop up. The first of these is whether we have here a case of homonymy or a case of polysemy. In other words, are the two types of constructions related to each other or not? Our claim is that they are related, and that they are not independent developments. Specifically, we will adduce diachronic and contemporary corpus data from the Hungarian Historical Corpus (HHC, <http://www.nytud.hu/hhc>) and the Hungarian National Corpus (HNC, <http://mnsz.nytud.hu>), respectively, that indicate that the type of construction in (2) is an extension from the type exemplified in (1). Another set of questions we answer has to do with the motivation for the development. We demonstrate that the *-ék* constructions are the result of a grammaticalization process involving several independently well-motivated conceptual metonymies and metaphors (MEMBER FOR CATEGORY, POSSESSION FOR INFLUENCE, SOCIAL GROUP IS FAMILY). In the course of this process markers of possession and plurality coalesce into the marker of group membership. Questionnaires and interviews with native speakers indicate that the apparent conflict between heterogeneity and homogeneity disappears if we transcend a purely grammatical perspective and recognize the fact that the grammaticalization process actually goes in the direction of lending ever more homogeneity from the very beginning, i.e. this suffix is a homogenizing device. This gradual conceptual shift is greatly assisted by the existence of what we may consider conceptual bridges provided by some lexical items that straddle the two sets of bases that serve as inputs for suffixation. Finally, the pejorative twist, which makes the type of constructions illustrated in (2) functionally even more viable, may be due to a phonological and semantic contamination from the word-formation constructions illustrated in (3),

- (3) **hasadék** split-ÉK 'crevice', **maradék** remain-ÉK 'rest, leftovers'

comprising instrument and patient nominalizations which inherently convey a range of features that make them less than absolutely positive, ranging from decreased agentivity, passivity, and mass-like status, to more specific negative connotations like worthlessness, disfunctionality, etc.

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A Bilingual Tripartite Architecture and its potential for analysing FL writing

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Jackendoff (2002) developed a linguistic model that describes language as consisting of three structures: the conceptual structure, the syntactic and the phonological structure. It is proposed that the crucial elements of these linguistic structures are rules which are actively applied in the process of generating linguistic messages. All of these structures are connected to each other via interfaces; the lexicon is part of these interfaces. Breuer (2014) proposes that Jackendoff's monolingual model can be expanded to a bilingual language model which can be used to analyse the language processes and the errors made by foreign language (FL) speakers and writers. The model contains two additional structures per language: an FL phonological structure and an FL syntactic structure. The conceptual structure is seen as working language independently, and because of this no further conceptual structure is needed. In the language generating process, the conceptual structure activates all linguistic structures but (in the ideal case) the elements of the target-language structures are sent to the execution instances.

The validity of the model was tested in an analysis of texts written by L1 (first language) German students of FL English. It was also applied in the analysis of the content of the revision processes that the students performed during the writing process of their essays which were recorded by keylogging software. For doing this, further structures had to be added to the model: an L1 and an FL orthographic structure.

The students wrote one simple essays (SE) and two academic essays using different planning methods: One L1 and one FL essay was planned by taking notes, the other academic essays were planned with the help of freewriting (Elbow, 1973). It was proposed that the method of freewriting would activate the linguistic structures differently and more successfully, and that less L1 induced errors would occur in the freewriting context because the students would not make any active and conscious use of their L1 competencies for producing the texts.

The results show for one that the model is well equipped to analyse errors in FL texts because it can explain where exactly the influences of the L1 on the FL production processes take place. Most of the errors in the texts were indeed *node-switches*, that is, errors which were the result of an element or a rule of the 'wrong' linguistic structure being faster in transporting the activated content to the hand than the target-language linguistic structure. The results also show that the different forms of activation had an effect on the types of errors made. The revision processes showed that there was hardly any awareness of these influences of the L1 on the FL language generating processes. The students focused on correcting typing mistakes or on content issues.

Another interesting result was that there were far less errors in the SE, indicating that the L1 influence grows exceedingly in the cognitively more demanding context of academic writing; be it because the working memory subconsciously used the L1 in order to reduce the cognitive demands (Ortega and Carson 2010) or because the monitor simply was not able to control the output of the non-target language (McCutchen, 2011).

All in all, the analysis supports Jackendoff's thesis that the linguistic structures contain rules rather than fixed elements in the form of words and variants of these words (for example singular and plural forms of one noun) and that a high amount of our language processing, for example the formation of words, occurs online.

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The English dative alternation: evidence from first language acquisition

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This study investigates the acquisition of the English dative alternation, which is the availability of two distinct constructions for many ditransitive verbs (see Gropen et al. 1989): the double object construction (1) and the prepositional construction (2).

- (1) Rick gave Kate a coffee.
- (2) Rick gave a coffee to Kate.

Corpus studies by Wasow (2002) and Bresnan et al. (2007) suggest that short objects precede long ones, animate objects precede inanimate ones, and plural objects precede singular ones. Their approach therefore sees the dative alternation as a choice between two ways of ordering the two objects that is guided by more general ordering principles.

Since the dative alternation is a complex system in this view, it provides a great opportunity for insights into the cognitive process of language acquisition. The only existing acquisitional study within this approach, de Marneffe et al. (2012), is based on corpus data. Their findings indicate that children's use of the dative alternation constructions can be viewed as a choice between orderings as well, and that this choice is driven by the same factors as it is in adults. It is merely the relative strengths of some of the effects that differ. However, due to the limitations of corpus data, de Marneffe et al. (2012) were not able to establish whether animacy has an effect in children's dative alternation choice.

This paper expands on that work with experimental results from children aged four and eight as well as adults. The experiment consisted of two tasks designed to investigate how the effects of word length, animacy, and number on the dative alternation choice with the verb *give* develop in that time. The first task used eye-tracking with an interactive visual-world paradigm presented on a touchscreen computer to measure the expectations/biases in the processing of dative sentences. In the second task, participants were presented with drawings of simple scenes and pre-recorded *give* sentences describing these scenes, and were asked to repeat the sentences. Some of these sentences were presented in the double object frame, but with object combinations that are predicted to favor the prepositional construction, and vice-versa. The elicited repetitions were used to measure the relative difficulty of these counterpredicted orderings. I discuss the new insights into the acquisition of the dative alternation that these data provide, as well as the possibility of using touchscreen input as an attention measure—the new “poor researcher’s eyetracker”.

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Ways of saying: Exploring verbs of communication in Spanish and English from a typological perspective

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In this talk I explore the verbs used to introduce Direct Speech in English and Spanish from a typological perspective (Talmy 1985, 1988, 1991; Slobin 1996, 2004). Using two corpora consisting of 60 fictional texts belonging to three fictional narrative genres (fantasy, romance and thriller) originally written in Spanish and English (30 texts in each language) and amounting to a total of 7 million words, I examine the communication verbs used in each language to introduce Direct Speech instances (e.g. say/decir, declare/manifestar) as well as other constructions with verbs outside the communicative domain but similarly used to introduce Direct Speech in narratives (e.g. grin/sonreir, scowl/fruncir el ceño). Drawing insights from typological research on the expression of motion events in such different languages as English and Spanish, the questions I address are the following:

- (a) How do English and Spanish recreate a speech event as suggested by verbs of communication introducing DS?
- (b) What does this say about these languages typologically-wise? Is it congruent with descriptions of Spanish as a verb-framed language versus the more versatile and dynamic style of satellite-framed languages such as English?
- (c) What is foregrounded by the verbs used in each language?

The analysis of the two corpora suggests that, contrary to what happens with the expression of motion in English and Spanish, the differences between these two languages do not rest upon lexical availability –i.e. Spanish is as rich as English in verbs of communication; rather, they result from two different discourse agendas and, therefore, two different ways of reconstructing speech events. While congruent with the typological research done on motion in both languages, this piece of research attempts to broaden its scope and include a topic still underexplored yet similarly relevant for the description of both languages.

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The acquisition of placement event constructions in L2 Spanish and L2 Danish: A bidirectional study

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In the last decade the field of second language acquisition has started to incorporate insights from Cognitive Linguistics into its research program (e.g., Achard & Niemeier 2004; Robinson & Ellis 2008; Ellis & Cadierno 2009). From this perspective, the acquisition of an L2 is viewed as the process of learning the constructions of the target language that embody the conventionalized ways of conceptualizing and categorizing scenes and events. In other words, learning a second language involves learning to re-categorize and construe "the world" like the native speakers (NSs) of the target language, or learning to re-think for speaking (Robinson & Ellis 2008).

The present paper addresses these issues by investigating how adult L2 learners acquire the L2 appropriate caused motion construction when describing placement events (i.e., events in which a figure moves an object to a given location in space). The investigation of placement events is an interesting area for SLA as recent research (e.g., Kopecka & Narasimham 2012) has revealed considerable variation in the linguistic conceptualization of this domain by NSs of different languages.

In our bidirectional study, two groups of Danish and Spanish NSs as well as two groups of adult L2 learners, i.e., L1 Danish learners of L2 Spanish and L1 Spanish learners of L2 Danish, described a series of video clips picturing systematic distinctions in placement events (cf. Bowerman et al. 2004). The results of the study revealed cross-linguistic differences between the two NS groups with respect to the semantic categorization of the placement verbs that were used and the type of caused motion construction that was employed, which will be the focus of this presentation. The most frequent Spanish construction consisted of a (NP)+V+DO+PP as in *Deja la taza en la mesa* '(s/he) leaves the cup on the table' whereas in Danish two types of constructions appeared more frequently: NP V NP (DO) PP (WHERE) as in *En kvinde sætter et krus på et bord* 'A woman puts.vertically DET mug on a table', and another more complex construction which further incorporates a directional particle, with the structure NP V NP (DO) DIR PAR (PATH) PP (WHERE) as in *Manden stiller en æske op på hylden* 'The man puts.vertically DET box up on the shelf'. In addition, the two learner groups evidenced difficulties in the re-categorization of placement event construction. On the one hand, learners had difficulties with regard to the verb choice. For instance, L2 Danish learners were able to describe support events with Danish verbs *sætte/stille/lægge* but they did not distinguish too clearly between horizontal and vertical placement. They used *lægge* 'put.horizontally' appropriately for horizontal placement but inappropriately for vertical placement. On the other hand, learners had problems with the use of the appropriate elements of the L2 construction. For example, L2 Spanish learners not only overused the general placement verb *poner* 'put' in these constructions but also employed directional adverbs such as *dentro* 'inside', *abajo* 'below' or *encima* 'on top', which were hardly used by Spanish NSs.

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On the *thwart* to get *athwart*: on the origin and meaning change of *athwart* in motion situations

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The origin and evolution of some words can be complicated to trace on some occasions, particularly when words are not very frequent and not many examples can be found in corpora due to the very specific contexts where they are used.

The present study aims at analysing the components involved in the motion situations where the term *athwart* is present in order to try to explain the origin of this word, as well as the meaning changes it has experienced through the years.

Even though motion events have been the object of much research in recent decades, particularly since the detailed description of motion situations by Talmy (1985, 2000), the elements that encode path in English, mainly prepositions or adverbs, have only received some attention lately (Gehrke, 2008; Nakamura, 2013). In addition, the analysis of motion events in previous periods of the English language seems to have been neglected.

Taking the Oxford English Dictionary (OED) as the point of departure to analyse the original meanings and etymology of *athwart*, a corpus-based study, using different corpora since the Middle English period (including the Helsinki Corpus and the Corpus of Late Modern English Texts Extended Version), will also be carried out. Although it seems clear that *athwart* originated following the structure of other words prefixed in *a-*, such as *across*, the complexity of this term lies in *thwart*. As well as being an adverb with almost the same meaning as *athwart*, *thwart* can also function as a noun, referring to the bench where the rowers sit on a boat.

Despite the lack of examples, particularly before the 18th century, the similarity of form and behaviour in motion situations of this term with others that originated in the language of the sea (e.g. *aboard* or *ahead*), and the development of new meanings that it has experienced will lead to several conclusions. While the combination of the prefix *a-* and the nautical noun might have given rise to the term *athwart*, the fact that this term has never encoded the ground of the motion situation may indicate a different origin, which would be connected to the etymology pointed at by the OED.

The language of the sea has provided the English language with a lot of expressions that have later acquired different idiomatic meanings. Understanding the origin of some not so well-known words could contribute to clarifying the meanings of some of these expressions today.

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Spatial Frames of Reference in Language and Cognition: A Case Study of Traditional Negev Arabic

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This work pertains to the interface of linguistic vs. conceptual knowledge and their relative contribution to the construction of meaning. Different theories diverge on this issue: Lakoff (1990) sees linguistic knowledge as a secondary expression of cognitive abilities, whereas Chomsky argues for a distinct module of mind; Barsalou et al. (2008) and Taylor & Zwaan (2009) likewise see linguistic concepts as independent of the cognitive system; Langacker (2008) and Talmy (2000) also consider linguistic meaning to be distinct from conceptual meaning; Evans (2014) affirms that semantic and conceptual structures constitute distinct representational formats.

Levinson deals with this topic from the angle of spatial Frames of Reference (FoRs). A FoR is a coordinate system (X) used to locate a Figure object (F) with respect to a separated Ground object (G). FoRs (Intrinsic, Relative, Absolute) are cognitive and linguistic categories (Levinson 2003). Levinson bases the cross-linguistic relationship between spatial language and cognition on the assumption that linguistic prevalence of one FoR, the normal state in a given language, should be reflected on the cognitive level. On the basis of acquisitional and cross-linguistic studies, however, Li & Gleitman (2002), Cardini (2010) and Landau (2010) distinguish cognitive vs. linguistic bias, recognizing only weak Whorfian effects. Bohnemeyer (2011) introduces a new linguistic type of 'referentially promiscuous languages' (RPL) where all three FoRs occur. RPLs strongly impact the relationship of language and cognition: where several FoRs coexist, the theory of bilateral predominance of a single FoR in both language and cognition is more challenging to support.

Traditional Negev Arabic (TNA) is a RPL (Cerqueglini 2014). Using corpus data (Shawarbah 2007, Henkin 2010, Alatamin 2011) and controlled stimuli, I analyze the conceptual framing strategies of TNA on several levels: 1. accounting for strategies of contextual FoR selection; 2. comparing linguistic and cognitive data; 3. showing how far a corpus-based model with high predictive power can produce reliable cognitive data (Bresnan & Ford 2010). In contrast with all RFLs documented so far, all TNA speakers use all three FoRs, selecting the appropriate one in context on the basis of 1. properties of G or 2. properties of G + some axial constraints. Distinctive features of G are largely based on a domain-specific cultural ontology, hardly predictable outside the TNA community and exclusive to the spatial domain. The appropriate FoR is selected on the basis of cultural-specific properties of G-objects, classified according to their cultural saliency and familiarity rather than metric and formal features: for example, the G-objects chair, shoe, key, and computer have no intrinsic Front/Back axis.

A common aim of Cognitive Linguistics is to seek for the broadest cross-domain conceptual generalization possible. Accordingly, abstract linguistic and cognitive patterns are considered to derive from the projection of structure across domains (Lakoff & Johnson 1999), as shown by the time-from-space hypothesis, already challenged by Moore (2011) and Evans (2013). The TNA domain-based ontology of objects seems to support the independence of every domain.

The TNA prepositions may be exclusive to a specific FoR, due to the tight interdependence of the semantic material contained in prepositions and in the related G-objects. The centrality of the lexical material of G-objects in the TNA referential system enables corpus analysis to reveal underlying concepts, according to distinctive collexeme analysis (Gries & Stefanowitsch, 2004), i.e. quantifying the index of combination of prepositions and FoR. Turning to cognitive tasks, however, TNA reveals a huge discrepancy: speakers use exclusively the Absolute FoR, and TNA shows no Whorfian effect.

Therefore, I propose a theory of 'radical relativism', whereby the nature and effects of the relationship between language and cognition may substantially differ across languages and cultures.

Changes on the use of JOURNEY metaphors in American presidential speeches

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The last decade has witnessed a growth of research on conceptual metaphors in the political discourse. This can be classified in terms of authors of the texts and types of source/ target domains being used for analysis. For example, Lu and Ahrens (2008) studied conceptual metaphors with one particular source domain (BUILDING) from Taiwanese presidents, while Charteris-Black (2005) looked at a range of conceptual metaphors from particular British prime ministers and American presidents. Following these examples, this study provides a diachronic analysis of JOURNEY metaphors in the American context to see how a concrete source domain structures an abstract target domain over time, as used by different speakers with different political ideologies.

In order to examine these issues, an independently compiled American Presidential Corpus was created by downloading speeches from Herbert Hoover to Barack Obama (1929-2014), including Inaugural Addresses, State of the Union Addresses, Political Party Platforms, Presidential Nomination Acceptance Speech, Presidential Debates and Saturday Radio Address. The data are all available from <http://www.presidency.ucsb.edu/ws/>. The total corpus size is 3,198,265 words and spans approximately 85 years. After compiling the Corpus, key-word-in-context searches were run using Wordsmith Tools 6.0, and five lexemes, which are postulated to be associated with the JOURNEY source domain, were chosen: journey(s), road(s), path(s), direction(s), and course(s). Following the approach of Critical Metaphor Analysis, the next step is to describe and classify metaphors. In this study, metaphorical uses were identified based on Group (2007) guidelines and normalized ratios were calculated (number of instances/corpus size multiplied by 1000). Finally, the collocation patterns, with a special focus on verb and adjective collocation, were analyzed.

From this diachronic study, it was revealed that the use of JOURNEY metaphors had different patterns from different time periods. Prior to the year 2000, JOURNEY metaphors are the most frequent. In addition, 'course' was used most frequently as a metaphor during that time period in comparison with the other lexemes. After the year 2000, the use of JOURNEY metaphors continued to increase, although the total amount of metaphor usages in the 2000s is not as high as in the 1990s. After the turn of the century, the most frequently used metaphor is 'path'. In terms of collocation, the use of JOURNEY metaphors were often collocated with the verbs including 'chart', 'pursue', 'continue', 'start', and 'move' throughout its history of use, which are highly motivated by DESTINATION, TRAVELERS, VEHICLE and STARTING POINT, the horizontal path of journeys.

In addition to the temporal element, variation was found among presidents in the degree of the use of JOURNEY metaphors for different issues, including economy, reforms, relationship building and values, with Johnson (1960's), Nixon (early 1970's), Ford (mid-1970's) and Obama (current president) having the highest normalized ratios of JOURNEY metaphors. In terms of collocations, it was revealed that different presidents had different preferences. Some of them tended to collocate JOURNEY metaphors with positive adjectives to express worthwhile goals, for example 'right', 'prosperous', and 'brighter', while some of them preferred negative adjectives, for example 'long', 'tough', and 'dangerous', to provide warnings regarding future goals, which supports the findings in Charteris-Black (2005).

In short, this study provides a diachronic account of metaphor usages in American political rhetoric over the past half a century and sheds light into how lexical choices underline and reflect underlying conceptual patterns.

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From Conceptual Distance to Focal Point in Conversation: Distal Demonstrative in Taiwanese Southern Min

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This study examines the discourse-pragmatic functions of the distal demonstrative *he* 'that' in Taiwanese Southern Min (TSM) conversation. TSM is a Chinese dialect spoken in Taiwan and the Southern Min areas of China. The data are drawn from 27 episodes of natural discourse with an approximate length of 200 minutes. Analysis of 1,105 tokens of *he* in the database shows that the primary function of this distal demonstrative in interactional data does not indicate deictic information but an overwhelming proportion of *he* tokens (65.9%) characterize a referent that is assumed by the speaker to be identifiable based on community knowledge, shared background knowledge, inference, or evoked information. Such uses are argued to emerge from the negotiation of the meaning of the referent via the interactional contexts (Tao 1999; Huang 2013). They signify the speaker's belief toward the hearer regarding the identifiability of the referent in the process of information exchanging and negotiating. The marking of a referent with *he* brings the NP at issue to an activated state which then serves as the focal point of interest in the succeeding exchange of talk. Meanwhile, the speaker might convey an emotional or viewpoint distancing from the referent. The functions of *he* in TSM suggest that this distal demonstrative is grammaticalizing into a discourse marker. Instead of physical distance that is found in the typical anaphoric or situational use, the major uses of *he* mark NPs that are otherwise conceptually distant from the hearer's consciousness. The metaphorical change can only be interpreted when we consider the interactional contingencies of the situation in which the distal demonstrative is used in natural discourse.

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Sensorimotor simulation in lexical and conceptual knowledge

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Current theories of cognition propose that sensorimotor simulation forms a necessary basis of abstract and concrete knowledge (Vigliocco et al., 2004). Previous research has shown that understanding action-related (Meteyard, et al., 2007) and spatial (Richardson, et al., 2003) language involves simulating associated sensorimotor experiences. Here, we present three studies investigating the nature of simulated representations formed online for remembered and perceived objects and related words.

Study 1 examined verbs' implicit *spatial* biases in their ability to displace visual attention in vertical and horizontal space. Participants read verbs derived from Meteyard & Vigliocco (2009) and completed a version of Posner's (1980) visual probe detection task. The spatial congruency between the verb's spatial bias and the probe location was consistently manipulated. In Experiment 1(a), verbs had a *vertical* bias (upward or downward) and the visual probes were presented above or below of the central fixation. In Experiment 1(b), the verbs had a *horizontal* bias (rightward or leftward) and probes were presented left or right of the central fixation. Analysis of the probe detection latencies indicated a reliable Probe Location effect in study 1, with faster reaction times for upward targets (cf. Goldring & Fischer, 1997). More importantly, there was a reliable interaction between Verb Bias and Probe Location in study 2, with faster responses for visual probes congruent with the verb's bias.

Study 2 examined the simulated nature of online representations of *manipulable* and *non-manipulable* objects activated from viewing their *pictures* or reading their *names*. Participants first read a *noun* (Study 2) or viewed an *object* (Study 3) before locating a green object within an array of manipulable and non-manipulable objects (Salmon, McMullen & Filliter; Borghi, Flumini, Natraj & Wheaton, 2012). The manipulability of a *prime* (previewed) and *target* (green) object was consistently manipulated. These two studies represent distinct properties: the former associated with priming mechanisms and the latter with top-down recall mechanisms. In both studies we measured reaction time twice: firstly as latency to respond to a visual probe array and secondly as latency to respond to an accuracy verification task. Analysis of Prime and Target Manipulability factors revealed a disordinal interaction in latencies to answer accuracy verification questions, with faster responses to Non-manipulable Prime/Manipulable Target trials. The same interaction was registered in error rate probability, with greater accuracy for congruent trials (study 2). In Study 3, an interaction between the Manipulability of Prime and Target was exposed, with participants detecting targets faster in congruent trials.

Our findings suggest that object representations are simulated both during direct perception and recall (Gallese, 2007) and that these representations compete for activation. We discuss this in terms of bottom-up and top-down effects of attention and memory upon cognition, and provide further support for grounded theories of cognition.

Empirical evidence for grammatical constituency: Pitch variation in online spontaneous speech production

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Since the clause unit has been the central focus of most syntactic theorizing, we aim to situate such basic unit in an on-line speech production context and seek empirical evidence for the psychological reality of the clause schema. Our data came from Taiwan Mandarin Conversational Corpus ([Tseng 2013](#)). A subset of the corpus was manually annotated for the present analysis, amounting to 3.5 hours with 16 different speakers. Each conversational turn was segmented into prosodic units (PU), which were defined as a perceptually coherent prosodic constituent featuring possible pitch reset, final lengthening, occurrences of paralinguistic sounds, and/or alteration of speech rate ([Prévot et al. 2015](#)). At the grammatical level, each conversational turn was segmented into clause units (CU) ([Chen 2011](#)), which were operationally defined as encoding a single proposition with a predicate and the center participants coming around it ([Thompson & Couper-Kuhlen 2005](#)). A satisfactory inter-transcriber agreements for PU and CU annotation have been achieved ([Prévot et al. 2015](#)).

We are concerned with systematic prosodic patterns introduced by the PU-CU alignment. Of particular interest was the pitch variation. Three acoustic-prosodic measures were computed by utilizing stylization of the F0 values in both global and local window frames: INITIAL PITCH RESET, FINAL PITCH CHANGE and PITCH MOVE. These measures would capture the cross-boundary pitch variation as well as the F0 declination in the PU. We conducted three linear mixed effect analyses with these three pitch-related features as our dependent variables and the 3 grouping factors as our predictors (i.e., fixed effects): their left-alignment (LEFT) with CUs, their right-alignment with CUs (RIGHT), and the number of PU-internal CU boundaries (INTCU). We included a random subject intercept as the random effect in the linear models. We addressed the question of how LEFT, RIGHT, INTCU, and all pairwise INTERACTIONS may contribute to the pitch variation of the PUs in conversational Mandarin. Experimental results are as follows.

For INITIAL PITCH RESET, we observed LEFT main effect, and two significant interactions — LEFT × RIGHT and RIGHT × INTCU. The LEFT main effect suggests that if the PU starts at the onset of the CU, its initial pitch reset from the previous PU will be significantly larger. The two interactions suggest that the degree of the PU-initial pitch reset signals not only whether speakers are going to finish the CU by the end of the prosodic phrasing, but also how much information (measured in number of CUs) they have planned to package in the PU. As for FINAL PITCH CHANGE and PITCH MOVE, we have both observed RIGHT main effect, suggesting that the grammatical configuration of the PU-CU alignment on the right-edge boundaries may contribute to a significantly larger degree of final pitch change as well as F0 declination within the prosodic phrasing. We conclude that the grammatical configuration of the prosodic phrasing correlates with systematic pitch variation, on which theoretical implications for incremental production will be drawn ([Levelt 1999](#)). Prosodic phrasing is found to emerge from the stream of conversational speech with a high degree of satisfying consistency reflecting our clause-based conceptualization in interaction.

Index: cognitive corpus linguistics, discourse and grammar, empirical methods in cognitive linguistics

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Are there differences between comprehension of literary and non-literary metaphors? An ERP proof

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Abstract: In this work the distinction between literary and non-literary metaphor comprehension is addressed by neurophysiological methodology to further explore the neural mechanisms of metaphor processing and promote the understanding of the differences between literary and non-literary metaphors. We have used event-related potentials (ERPs) to examine whether differences in neural mechanisms exist between the two.

Amplitudes of the N400 and the Late Positive Component (LPC) (350-450ms, 750-850ms respectively) elicited by literary metaphors were significantly larger in contrast to those by literal sentences and non-literary metaphors, The difference indicated the conceptual mappings for processing literary metaphors were more cognitively taxing than literal sentences and non-literary metaphor, and supported the Gradient Salience hypothesis. Our data do not support Conceptual Metaphor Theory of literary metaphor comprehension in that the N400 and LPC effect in the literary metaphor condition indicated the conceptual mappings for processing literary metaphors were more cognitively taxing than literal sentences and non-literary metaphors. Compared to the literary metaphors, the non-literary metaphors were assumed to be less novel than literary metaphors and were therefore supposed to not be “salient”, and consequently it evoked smaller ERPs.

The current findings established that there exist differences between non-literary and literary metaphor processing, i.e., understanding literary metaphors is harder than understanding non-literary metaphors. This is because comparing the concepts and creating new conceptual mappings are required for processing literary metaphors. The study has yielded empirical evidence for the differences between literary literary metaphor comprehension, advancing why and how metaphor is widely employed in metaphor and non-the understanding of literature.

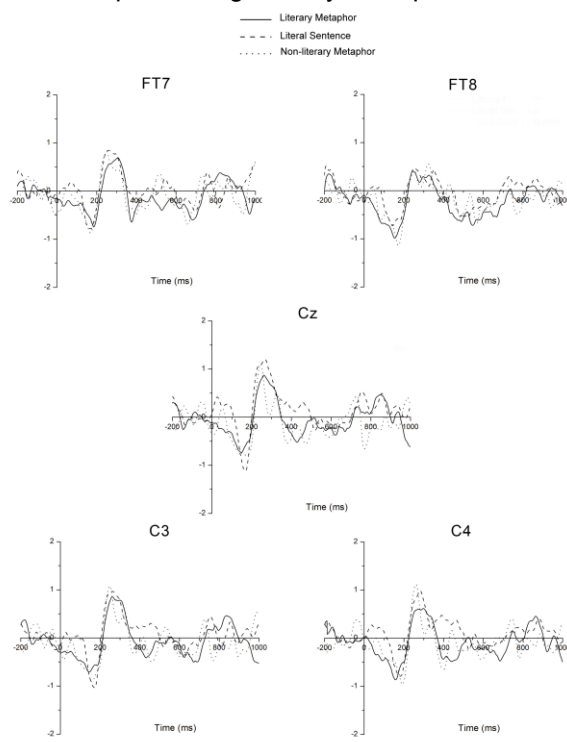


Fig. Grand average ERP waveforms recorded at selected electrode sites for the literary metaphor (solid lines), non-literary metaphor (dotted lines) and literal sentence (dashed lines) conditions.

Scalarity Encoded in Mandarin Chinese Minimizers through Constructional Association

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This study explains why Modern Mandarin Chinese minimizer NPIs tend to occur in three specific constructions by seeking the answer through a diachronic lens. The associations between the minimizer NPIs and the syntactic constructions have developed based on the compatibility of their semantic and pragmatic properties, particularly scalar inferences and informativity. A cross-period corpus study including Old Chinese, Middle Chinese, and Early Mandarin Chinese, is conducted to capture the motivations of these associations.

The main source of Mandarin minimizers is a ‘one’-phrase with the form, ‘one’-unit word (UW)-NOUN, where the slot of UW can be a measure word or a classifier. In Modern Mandarin, ‘one’-phrases have multiple functions, including serving to count, referring to an indefinite referent, and behaving as minimizers. Although it is known that negation licenses minimizers crosslinguistically, this condition cannot completely separate the minimizer function from others, as shown in the contrast between (1) and (2). The ‘one’-phrase in (1) has a referential function according to the context, but the same phrase in (2) functions a minimizer NPI. Therefore, there is a need for the minimizer function to be associated with certain types of constructions to get distinguished from the other functions coexisting in polysemous ‘one’-phrases.

- (1)

bù de guī zuì yú [yì rén]

NEG can attribute guilt to one person

‘The guilt cannot be attributed to one person.’
- (2)

bú jiàn [yì rén]

NEG see one person

‘does not see even a single person’

When ‘one’-phrases under the scope of negation occur in the following three constructions, they must be interpreted as minimizers. The first one is the preverbal object position, as in (3). The minimizers as a grammatical object started to occur in the OV order around Middle Chinese, as indicated by the percentage in (4).

- (3)

[yì rén] wú shè

one person NEG forgive

‘No one can be remitted a punishment.’
- (4)



Second, ‘one’-phrases under negation must be understood as minimizers when they are attached by a scalar particle. As shown in (5), yě as a focus-sensitive scalar particle follows the minimizer. The co-occurrence of minimizers and a variety of scalar particles had its debut in Early Mandarin and increased over time, as in (6).

- (5)

[yí zì] yě wú

one word FOC NEG.have

‘does not have even a word’
- (6)

percentage of minimizers with a scalar particle attached

Old Chinese	Middle Chinese	Early Mandarin I	Early Mandarin II
0%	0%	23%	44%

The third one is the degree modification construction. When ‘one’-phrases under negation occurs with degree modifiers, such as jìng ‘eventually’, bìng ‘entirely’, and jué ‘absolutely’, they must be interpreted as minimizers, as shown in (7). The degree modification came into play around Middle Chinese, as in (8).

- (7)

jìng wú [yì yán]

eventually NEG one word

‘Finally not even a word is said.’
- (8)

percentage of minimizers with degree modification

Old Chinese	Middle Chinese	Early Mandarin I	Early Mandarin II
0%	8%	14%	44%

Minimizers carry informative values only if they appear in an appropriate context of emphasis (Israel 2011). If not, semantic conflicts will arise. This explains why minimizers tend to appear in the constructions where they can maintain consistency between the scalar inferences and the rhetorical force of the contexts. Specifically, Mandarin preverbal position, scalar particles, and degree modification can set up a scale for minimizers to induce scalar inferences. In brief, this study shows that the constructionalization (Traugott & Trousdale 2013) of ‘one’-phrases as minimizers is an incremental process shaped by semantically related constructions.

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Metaphoric Competence of EFL Learners in EAP Writing

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Metaphoric competence, the ability to comprehend and produce figurative language, becomes a necessary component for successful communication in a globalized context. Research has found that metaphoric competence is tightly associated with the four components of communicative competence, namely grammatical, textual, illocutionary, and sociolinguistic competence. To develop communicative competence fully, L2 learners are suggested to pay equal attention to the development of metaphoric competence. However, previous research investigating L2 learners' metaphoric competence as a receptive ability; research on L2 learners' productive ability in terms of metaphoric competence is scant, particularly research targeting at foreign language learners who lack frequent language exposure and communication needs.

The present study aims to examine the role of metaphoric competence in EFL learners' development of communicative competence through analyzing EFL learners' written essays. Moreover, to suit the EFL environment in which English is taught and used mainly for academic purposes, four types of genres—description, narration, explanation, and exposition—were integrated into five writing tasks to target EFL learners' use of figurative language in EAP writing. An analysis of 80 essays written by 16 university students at the intermediate to high-intermediate proficiency levels was conducted. A coding scheme integrated with aspects of communicative competence was developed. Findings showed that figurative language uses and the different text types were interwoven in the participants' essays. The participants were capable of producing not only fixed or idiomatic usages but also open-class metaphors based on conceptual metaphors. Overarching metaphors followed by clusters of relevant figurative expressions were adopted by the participants in their attempts to maintain topical coherence. Finally, illocutionary functions were identified in the figurative expressions used in all four genres, and they matched the general writing goals of each text type, such as the manipulative function for expressions used in the exposition and explanation text types. The results provide a comprehensive analysis of EFL learners' metaphoric competence within the framework of communicative competence and suggest that a more detailed set of descriptors involving metaphor uses be developed to add to the categorization of language proficiency.

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The Fictive Motion of Emanation in Japanese Compound Verbs: A Frame-Semantic Approach

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By examining Japanese [V1-V2]_V compound verbs which express the fictive motion of emanation (henceforth “emanation compounds”), such as *teri-tukeru* (shine-to.attach) ‘shine on’, in a frame-semantic approach (Fillmore 1982, among others), I claim a semantic constraint on compound verbs is that V1 and V2 must constitute a coherent *semantic frame* (see Goldberg 2010). That is, the Frame Elements (FEs) of V1 and V2 must be fused based on the Semantic Coherence Principle (Goldberg 1995).

“Emanation” is the fictive motion of something intangible emerging from a source (Talmy 2000). In the case of *teri-tukeru* (shine-to.attach) ‘shine on’, the moving intangible entity is the “light” emitting from a luminous source, which can be viewed as the frame element Beam in the Light_movement frame evoked by V1 *teru* ‘shine’. Previous studies of Japanese compound verbs, such as Kageyama (1996) and Yumoto (2005), are mainly conducted utilizing Lexical Conceptual Structure (LCS). However, LCS does not contain the “encyclopedic knowledge” about the intangible entities like Beam. For this reason, I argue LCS cannot capture the semantic features that determine the possible combinations of emanation compounds.

On the other hand, by adopting a frame-semantic approach, we can explain and predict the possible combinations of emanation compounds. For instance, based on the encyclopedic knowledge that Beam (in Light_movement frame evoked by *teru* ‘shine’) and Gaze (in See_eye frame evoked by *niramu* ‘stare’) are able to stay in a fixed position (Goal), V1 *teru* ‘shine’ and *niramu* ‘stare’ can be combined with V2 *tukeru* ‘to attach’, which evokes Attaching frame. As to Sound in Sound_movement frame, since it will die away and thus cannot be attached to the Goal, verbs such as *sakebu* ‘shout’ or *wameku* ‘shriek’ cannot be combined with V2 *tukeru* ‘to attach’. Instead, these verbs can be combined with V2 *tirasu* ‘to scatter’ which evokes the Dispersal frame, since the frame element Scattered Individuals is compatible with the properties of Sound.

Furthermore, emanation compounds are often accompanied by an irregular argument realization pattern. Given the head-finality of Japanese, the transparent cases of argument realization are considered to be the results of taking the argument structures of the head V2s and ‘superimposing’ those of V1s on them (Kageyama 1996). However, in emanation compounds such as *teri-tukeru*, the object of V2 (Beam) cannot be realized as the object of the compound verb. Instead, it becomes a non-argument FE of the compound verb. We can explain this phenomenon with the concept of “Shadow Arguments (Pustejovsky 1995).” Shadow Arguments refer to the semantic content that is semantically incorporated in the verb semantics and can be expressed only by operations of subtyping (i.e. *Mary butter her toast* {**with butter* / *with margarine*}). In this vein, FEs such as Beam, Gaze, Sound, etc. can be regarded as Shadow Arguments. Thus, we can assume that when a FE is fused with the shadow argument, then it cannot be realized as the argument of the compound.

In conclusion, this study shows that in order to elucidate the combinatory possibilities of Japanese compound verbs, a rich semantic structure, like semantic frame, is therefore required. Also, we need to introduce the concept of Shadow Argument into Frame Semantics to account for the irregular argument realization pattern of emanation compounds.

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A Corpus-Based Analysis of Metaphor in Korean Spatial Expressions

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Spatial expressions in Korean basically represent speaker's judgment about relative distance, height, and width, but they also display metaphorical meanings by extending their perception of visible concrete spatial relations to invisible abstract ones (Levinson 2003, Talmy 2003). This research examines spatial expressions i.e., distance, height, and width from the perspectives of corpus-based cognitive approaches to metaphor ((Lakoff & Johnson 1980, Lakoff 1987, Gibbs 1994, Kövecses 2002, Barcelona 2003, Dirven & Pörings 2003, Stefanowitsch & Gries 2006). Based on the examination of the co-occurrence relations of the lexical items *kakkapta* 'near' vs. *melta* 'far', *nacta* 'low' vs. *nopta* 'high', and *copta* 'narrow' and *nelpta* 'wide' by analyzing the Sejong Project Corpus, this study explores literal vs. figurative meanings of the Korean spatial expressions.

First, this research examines expressions of distance, *kakkapta* and *melta*. Research shows that the basic use of *kakkapta* and *melta* is to display relative distance (i.e., physical proximity vs. aloofness), but they also denote metaphorically extended meanings: (i) temporal distance, (ii) distance in kinship and intimacy in social relations, (iii) proximity to reference numbers and quantity, or remoteness from goals or abstract states/entities, etc. This study claims that the metaphorical meanings of *kakkapta* and *melta* are derived from the conceptualization that the distance between temporal points, social relations, reference points and the goals or abstract entities can be explained in terms of physical distance on a linear line from the speaker or a reference point to a referent being compared, by applying metaphor theory. Second, this research examines expressions of height, *nacta* and *nopta* in the database. These two adjectives have extended meanings such as (i) little or much amount of quantity on a vertical scale, (iii) low or high levels of quality on abstract entities on a scale, (iv) low or high levels of social hierarchies, and (v) low or high frequency rates in voice or sound. Such metaphorically extended semantic properties of *nacta* and *nopta* in quality, quantity, and social relations are derived from our conceptual notion that views height between a reference point and a target on a vertical scale in terms of a numerical scale. Third, this study examines the basic meaning of *nelpta*, and *copta*, the physical width or breadth of concrete objects, and shows that the meanings are extended to indicate the conceptual width or breadth in human perception or cognitive processing, and even in abstract entities. Finally, this research suggests that a corpus-based cognitive approach to language is a useful tool in characterizing metaphorically extended meanings of spatial expressions.

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Beyond sweet: a variety of conventional metaphors are more emotionally engaging than literal paraphrases

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Recent neuroimaging research on metaphorical language has shown that taste-related metaphors, e.g., she looked at him sweetly are more emotionally evocative than their literal counterparts, i.e., she looked at him kindly; specifically, even though the two sentence types were matched for affective properties (emotional valence, arousal), results demonstrated enhanced activation of the left amygdala, as well as the hippocampus and parahippocampal gyrus during silent reading of the metaphorical vs. literal versions (Citron & Goldberg, 2014). Amygdala activation is associated with an automatic, implicit response to intense emotional stimuli (e.g., Herbert et al., 2009), suggesting that metaphors are more emotionally engaging.

The present fMRI study aimed to determine whether this finding would be replicable when a range of different conventional metaphors were used beyond the source domain of taste (e.g., She had a rough/bad day; That's a strong/good argument!). Sentences differed only in one word between metaphorical and literal versions, and the two conditions were matched for affective variables, length, familiarity and imageability. If metaphoricity in general (and not just taste-reference) elicits stronger emotional engagement, results should indicate larger BOLD response in the amygdala for metaphorical than literal sentences. There may also be more activation of other regions associated with processing of emotional language, i.e., insula, anterior cingulate cortex (ACC) and orbitofrontal cortex (e.g., Kuchinke et al., 2005).

Twenty-six adult German native speakers were asked to silently read sentences and to occasionally respond to yes/no comprehension questions, while lying in the MRI scanner.

As expected, at the whole-brain level, both metaphorical and literal sentences (analyzed separately) elicited activation in the language-relevant network when compared to a visual baseline (hash mark string sequences): a common bilateral, fronto-temporal network of activation, including bilateral inferior frontal gyrus, left medial superior frontal gyrus, bilateral middle and superior temporal gyri as well as temporal poles, bilateral precentral gyrus. These regions are typically activated during sentence or text comprehension (Ferstl et al., 2008).

Of particular interest is the fact that metaphors specifically activated the right ACC more strongly than the baseline, whereas literal sentences activated the inferior parietal lobule (part of the default network) more strongly. In a direct contrast metaphors > literal sentences, there was also significantly enhanced activation of the right ACC, associated with processing of emotional stimuli during tasks that require either a certain degree of cognitive load or conflict processing (e.g., Kanske & Kotz, 2011). No significant cluster was found in the opposite contrast.

A-priori small volume correction based on the amygdala revealed significant peaks of activation bilaterally in response to metaphors vs. baseline but not to literal sentences vs. baseline, therefore supporting the idea that metaphors are more emotionally evocative than their literal counterparts. Together with the ACC activation, the results are consistent with the idea that the metaphorical formulations are more emotionally engaging. The present results were obtained despite the use of a much wider range of conventional metaphors than were used by Citron and Goldberg (2014), and a stricter stimulus manipulation than in previous research as well (the metaphors were slightly less familiar in C&G (2014) than the literal paraphrases, although this was controlled in the analyses).

Mental spaces and grammar in interaction: the case of concessive metaspatial constructions

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The basic assumption in Mental Spaces Theory (henceforth, MST) is that mental spaces are set up, evoked and negotiated as discourse unfolds. More recent work on MST has treated content, epistemic, speech act and metalinguistic domains in terms of a network of mental spaces that are freely and automatically available in any communicative exchange (Sanders et al, 2009; Ferrari & Sweetser, 2012). In ongoing interaction, however, speakers may produce utterances that do not fit into any of these spaces readily available in the network; therefore other types of spaces are set up to fulfill cognitive and communicative purposes, one of them being the metaspatial space. The category of metaspatial space has been previously analyzed in the context of conditional constructions (Dancygier & Sweetser, 2005), in which the protasis sets up a background mental space to the space-negotiation process.

The purpose of this paper is two-fold: (i) to extend insights about the space network configuration of metaspatial constructions; (ii) to do so using a semantic framework that reflects what is known about the cognitive and functional organization of linguistic structure. The linguistic territory of analysis is precisely the one of concessive adverbial clauses, specifically the ones headed by the conjunction *SE BEM QUE* (literally, “if well that”), in Brazilian Portuguese (01).

- (01) [...] então dizem que a galinha de capoeira - é a galinha mais gostosa que tem - né? já ouvi dizer demais isso - e que a galinha de granja não tem gosto de nada - SE BEM QUE eu acho que eu só como galinha de granja ultimamente que eu - não sei onde que tem terreiro pra eu ir atrás de galinha. [...] (CDP:19Or:Br:LF:Recf)
[...] they say that free-range chicken is tastier - right? I have heard this many times - and that barn chicken have no taste at all - THOUGH I think I have only eaten barn chicken lately because I don't know where I could go to get free-range chicken [...]

It is typical in discourse interaction for more than one category of mental space to be active, that is, content, epistemic and speech act spaces are co-activated and simultaneously negotiated and it is in these cases, of co-activation and simultaneous negotiation that metaspatial constructions come into play. Therefore, these constructions display, at the discourse level, a high degree of interactional and intersubjective features. The interactional and intersubjective nature of the concessive clause in example (01) arises because the speaker foresees a possible conclusion the hearer might reach given the discourse content.

Concessive constructions are dialogic in nature, that is, part of their semantic structure is the negotiation of different mental spaces (Verhagen 2005) and construction with *se bem que* would fall into the category of “strong” concessives (Hermodson, 1994), because their function in discourse is the one of conveying the speaker's objection to some asserted or assumed presupposition. In this sense, there is a simultaneous activation of speech act and epistemic spaces, since it is being negotiated both speaker's and hearer's reasoning processes and the interactive situation itself. In example (01), the epistemic space correspond to the assumed conclusion the hearer would get to given what the speaker has just mentioned in the previous discourse, and the speech act space is activated when the speaker, relying on the inference from the epistemic space, objects to such a conclusion.

Our corpus analysis of *se bem que* concessive metaspatial constructions has shown specific constructional features that corroborate, at the linguistic level, the cognitive function of these constructions. It has also been identified constructional features at the discourse level. Ultimately, this paper addresses issues of how mental spaces are managed and negotiated as discourse unfold and of what are the grammatical constructions that allow speaker and hearer to keep track of such negotiation.

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Deixis in the Fourth Dimension

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Traditionally, the deictic centre is seen as consisting of three elements: person, space, and time. In knowing those three components of the context, we can interpret a deictic term used in discourse. But can we? In this paper I present a new possibility: that a fourth element of the deictic centre exists, and is required for interpretation. That fourth element involves knowledge of the active mental space of the discourse event.

I use natural language data collected from two groups of table-top roleplay gamers to investigate language use in multiple-world contexts. Roleplay games are played through an avatar in a fictional world, and as a result, referring expressions cannot be interpreted by the basic context alone. In order to understand utterances such as that in example 1, a new system must be devised:

Example 1 (some irrelevant utterances were removed):

Phil: Okay so after Sean was Jacob. Jacob did you do anything?
Jake: I'm moving thirty feet
Jake: Cause I'm gonna turn- oh, actually
Jake: Actually, with my tumble I have to beat its bloody base attack don't I?
Sam: I'm going there, I'm gonna xxx like thirty feet closer

In the above example, the references to Jacob, both using deictic expressions and using his name, occur over three separate contexts: real, fictional and character statistics. In order to explain this cross-world use of deixis, I propose the adaptation of Fauconnier's (1994) mental spaces into an element of the deictic centre. By building on Fauconnier's model and adapting Bühler's (1982) model of deixis, this new understanding of the deictic centre not only enables interpretation of traditional deictic forms, but highlights the need to rethink the definition of deixis as a whole. The referring expressions in example 1 are traditionally deictic, and require knowledge the person, space, and time for their interpretation. Example 2, on the other hand, uses proper names, which are usually considered to be interpretable independently of context.

Example 2:

Pete: and I'll cast flame strike on him, and yes I know he doesn't cop fire damage
Phil: [[he's not immune to fire Pete
Sean: so you're gonna hit one of these guys @[[@
Gaz: I'll do it Pete
Sean: I'm sure Gaz'll dodge
Jake: do it on Gaz
Pete: No I'll just move up
Jake: No Pete don't go through there
Jake: not there either, ah. [Pete, Pete's flame striking

The proper names in example 2 are uninterpretable without an understanding of the speaker's active mental space. In this case, knowing whether the speaker is operating in the real world, as in the second utterance, or the fictional world, as in the final utterance, can tell us if Pete is Pete himself, or the character they are playing. As a result, we must then consider the possibility that proper names are actually deictic, a fact that has been hidden behind single-world thought.

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Frequency effects in sound changes

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This paper intends to be a contribution towards the debate on the role played by frequency effects in sound changes. The literature has shown that frequency effects count in the implementation of sound changes (Bybee & Hopper 2001; Bybee 2001; Phillips 2006). Type frequency refers to the number of times a given element (or type) occurs in a given corpus. The type might be a word, a morpheme, a syllable or a sound and is related to the productivity of a pattern. Token frequency, on the other hand, is related to the number of times a type appears in a given corpus. Token frequency is related to the rate of usage. Phillips (2006) and Bybee (2001) suggest that sound changes are affected differently by frequency effects. Phonetically motivated sound changes affect more frequently used words first. On the other hand, low frequency words are affected first in sound changes that have no phonetic motivation and are related to grammatical or analogical changes. Furthermore, they suggest that in this latter case the less frequently used words are affected first. This paper examines the claim that phonetically motivated sound changes affect more frequently used first and that sound changes with no phonetic motivation affect less frequently used words. In order to examine these claims we will consider some Brazilian Portuguese case studies: 1) lenition in a sequence of (sibilant + affricate) as in *triste* 'sad' the forms *tristʃi* > *triji*. Oliveira & Cristofaro Silva 2009 showed that more frequently used words are affected at higher rates in this case. They also provided evidence that this sound change was phonetically motivated. 2) alternation of mid vowel in verbal forms as in *(ele/a) plan[e]ja* > *plan[ɛ]ja* 's/he plans' or *(ele/a) r[ɔ]uba* > *r[ɔ̃]uba* 's/he steals'. Campos (2005) offers evidence that less frequently used words are affected at higher rates than frequently used ones. He also shows that it reflects an analogical change. 3) glide deletion in raising diphthongs as in *cár[je]* > *cár[i]* 'tooth cavity' *vác[wo]* > *vác[u]* 'vacuum'. Faria (2013) expected high frequency words to be affected first due to the phonetic motivation of glide deletion. Her results showed that frequency effects were, however, obscure since no clear distribution of frequency was observed in her results. The lack of frequency effects in the case examined by Faria (2013) puts into question Bybee (2001) and Phillips (2006) claim for the role played by frequency effects in sound changes. We reexamined Faria's (2013) results in detail. We suggest that the lack of frequency effects in glide deletion is apparent. In fact the phenomenon reflects a more general sound change which is promoting the loss of the final unstressed vowels: *cár[je]* > *cár[i]* > *cá[r]* 'tooth cavity' *vác[wo]* > *vác[u]* > *vá[k]* 'vacuum'. In fact glide deletion in raising diphthongs is a nearly completed sound change. Data with the presence of the glide are rare and the vast majority of cases present a single vowel: *cár[i]* or *vác[u]*. The cases which present final unstressed vowel deletion - *cá[r]* and *vá[k]* - are also few, which indicate that this is a sound change in its initial stages. Curiously, more frequently used words are affected first in cases where the final unstressed vowel is deleted. We suggest that frequency effects have to be carefully examined within a wider context. Several sound change trajectories may be under play and for being interconnected they may apparently disguise frequency effects. A Complex Adaptative System approach to language (Larsen Freeman 2013; Bybee 2010; Beckner et al. 2009) appears to be the adequate framework to examine the concomitant role played by several interacting sound changes.

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Metonymy, metaphors and constructions in a corpus-based Embodied Construction Grammar framework

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Successful interpretation of metaphoric usage plays a crucial role in discourse. But without additional figurative interpretation tools, many intuitively obvious metaphors seem hard to identify or analyze. Work on metonymy and its interaction with metaphor suggests that this interface needs more attention. Both metonymy and metaphor interact with grammar (Sullivan 2013), an integration that we are currently pursuing within the framework of Embodied Construction Grammar (ECG) (Bergen et al. 2005). Using data from our corpus of online journalistic sources, we offer initial analytic suggestions towards such an integrative solution.

Consider the attested example *snatched from the jaws of poverty*. Assuming that poverty has jaws does not fully constrain the kind of entity referred to. If it is simply dangerous as a body part, since human beings have jaws, perhaps this is just an anthropomorphic metaphor of poverty? But it is clear that this usage invokes the metaphor POVERTY IS A PREDATORY BEAST, and that being in “poverty’s jaws” entails the likelihood of being killed and eaten – this physical death maps metaphorically onto complete economic failure. Jaws here evokes the whole of the predatory animal, whose jaws are a salient and dangerous part. Without the correct metonymy, the metaphor cannot be identified and processed. Such interactions are frequent in our corpora: e.g., *the walls of poverty* seems part of the same general metaphor as *the prison of poverty*. But, like a jaw by itself, a wall in itself is not dangerous; it could be part of a shelter. Only in the context of the metonymy of WALL FOR CONFINING STRUCTURE is this metaphoric usage comprehensible. In our database of automatically-extracted metaphoric expressions, we find that the Noun1-of-Noun2 construction frequently maps some metaphoric source domain that is metonymically evoked by Noun1 and refers to some target domain in Noun2. We use an ECG-based grammar to correctly predict that, over a wide variety of domains, N1 metonymically evokes a frame, which in turn serves as the source frame of a metaphor, which is then found in our database and reported for the input text.

Also crucial to the interpretation of this phrase are metaphoric interpretations of the verb *snatch*, the preposition *from*, and the Caused Motion Construction as a whole. The phrase *snatched from X* refers to physical caused motion from a location. Since STATES ARE LOCATIONS and (CAUSED) CHANGE IS (CAUSED) MOTION, use of the CMC to refer to caused change is unsurprising; but few metaphor processing models include treatments of metaphoric uses of grammatical constructions. Non-spatial verbs are part of similar patterns, as in *voted X out of office*. Using layered metaphoric analyses in ECG, we can take the metonymically-evoked metaphor of *jaws of poverty* and feed it as input to the metaphor evoked by *snatch* and the CMC as a whole. Thus, metaphoric layering is built up incrementally as the constructional complex grows. Construction grammar must take into account the metaphoric interpretations of lexical items within constructions, because these then give us the global meaning of the construction as a whole.

We offer initial formalization mechanisms that support an integration of automated metaphor recognition with a lexical metonymy component, including mapping of grammatically-evoked source-domain frames (such as Caused Motion) directly onto target-domain frames, and using metonymy as the cue for source-domain frames in metaphors.

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English categorizing copular clauses: construing ascription and specification

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This paper aims at developing a comprehensive cognitive-functional description of categorizing copular clauses in English, i.e. clauses in which *be* links a typically definite NP and an adjective or indefinite noun phrase. We argue, firstly, for a semantic analysis not in terms of the logical notion of ‘class inclusion’, but in terms of a correspondence relation between instance and schema, which can naturally accommodate a graded assessment of the instance vis-à-vis the schema, as in (1a) and (2a) (Davidse 1992, cf. Langacker 1991). Secondly, we propose that the relation between instance and schema can be construed either *ascriptively* (1-2), with the ascriptive complement (ascr. compl.) realizing type-attribution (Langacker 1991: 67), or *specificationally* (3), with instances (‘values’) being specified as meeting the criteria of the schema (‘variable’). Treating the latter as categorizing copulars reveals generalizations that are lost in the tradition that views them as identifying (e.g. Halliday 1994).

- (1) a. My mother is very **poor** [ascr. compl.]. (WB)
b. [...] **the situation is difficult** [ascr. compl.], **not me.** (Google)
- (2) a. Ezekiel is very much a **visionary** [asc. compl.]. (WB)
b. **Pets** [ascr. compl.] they may be, but ... they dig up the soil... (WB)
- (3) a. [on spelling of ‘Jahweh’] Another version [variable] was **Yeshua** or **Jeshua** [value]. (WB)
b. [...] Nick’s. His [value] was another name that had become a **curse** [variable]. (WB)

We ground our semantic analysis in the distinct *syntactic* behaviour and *information structure* tendencies of the two categorizing clauses, and in the different *referential statuses* of their NPs. We will offer a qualitative and quantitative analysis of a random sample (n = 5,000) of categorizing clauses, as well as of datasets extracted on particular features of the subtypes from WordbanksOnline (WB).

In support of the specificational analysis of clauses such as (3) we will verify their reversibility, i.e. subject- complement switch (Huddleston 1984) as reflected in differing agreement and case, and to be distinguished from fronting of the complement found with ascriptive clauses (2b). Regarding information structure, we discuss the typical information foci (marked in bold), viz. on the ascriptive complement (1a)-(2a) and on the value specified for the variable (3a), while also studying contrastive focus on the subject (1b) and anaphoric, given values like *his* in (3b), which show that the contrast ascriptive – specificational does not reduce to an information structure one.

Different referential statuses are crucial to the contrast between nominal ascriptive complements, e.g. *a conservative* in (2), assumed to be non-referential and variables, e.g. *another version* in (3), which are indefinite non-specific NPs to which a presupposition of existence attaches (Declerck 1988). To arrive at a fuller characterization of the referential statuses, we will inventory the indefiniteness (e.g. *a*, *some*, zero) and quantity markers (e.g. *one*) which the indefinite NP in the two types of categorizing clause can take. We will also systematically investigate the discursive embedding of the ascriptive complement and the variable: we predict that the type specifications (Langacker 1991) of the former are more often discourse new, and those of the latter discourse-given.

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***After 15 years of sobriety I found out he was drinking and using again:
Taboo avoidance as a trigger for object drop?***

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In his seminal article on object omission, Fillmore (1986) establishes a valuable descriptive dichotomy between what he calls *definite null complements* (DNCs) and *indefinite null complements* (INCs), whereby genuine instances of object drop (i.e. INCs) are set apart from cases in which the elided object can be retrieved from the surrounding context (i.e. DNCs). According to Fillmore, INCs comprise “two distinguishable phenomena, one involving a semantic object of considerable generality, the other requiring the specification of various degrees of semantic specialization” (Fillmore 1986: 96). This opposition is exemplified respectively by the objectless uses of verbs such as *eat* in *He has not eaten since the surgery*, where *eat* simply refers to the physical activity of consuming any kind of food, and *drink* in *I have tried to stop drinking*, where *drink* denotes the ingestion of alcoholic substances in particular. A question that naturally arises from this distinction is what kind of verbs are allowed with each specific pattern of indefinite null complementation and which are the reasons underlying the eligibility of those verbs as members of one or the other subset.

The results of a previous corpus-based study (de Dios 2013) revealed that object omission with verbs of the first subset, as represented by *eat*, seems to be deeply connected with the recurrent appearance of complements involving food in the transitive pattern (e.g. *He ate a plate of fish, chips and Heinz tomato sauce*), which might have led speakers to create very concrete assumptions as regards the kind of complement this verb takes, thus making it much more inferable and, consequently, easier to leave out. The same reasoning, however, would not be applicable to verbs of the second subset, as ‘alcoholic beverage’ does not feature as the most salient complement of the verb *drink*. One possible explanation for the emergence of these specific intransitive uses of verbs such as *drink* can be sought in the fact that drinking alcohol in an excessive way might be considered as a taboo subject, of which explicit mention should be avoided in polite conversation (cf. Goldberg 2005 for a similar claim about the relationship between object omissibility and politeness).

The aim of the present study is to shed some light on the validity of this hypothesis by testing it against real linguistic data. With this purpose in mind I will search the relevant sections of *The Corpus of Historical American English* (COHA; Davies 2010) for the objectless instances of the verb *use*, which has come to be employed to refer to drug consumption from the middle of the last century onwards (e.g. *I still think like I always did, if someone wants to use that is his business*, OED s. v. *use* v. 9. d). The detailed analysis of the contexts in which this intransitive variant emerged and spread will allow me to obtain a more precise idea as regards the role that linguistic taboo may have played in the rise of the pattern. In so doing, I will be able to check whether the influence of speakers’ perceptions about the appropriateness of their linguistic production is confined to the abundantly explored lexical sphere (cf. Hock and Joseph 2009, among others) or whether, on the contrary, it may also have an impact on syntax (cf. Hurford 2012).

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On the conventionalisation of alternate time-quantification construals

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The paper's point of departure is that meaning resides in conceptualisation and vitally depends on how content is construed (Langacker 1987, 2008). From this postulate it follows that the meaning of a linguistic expression is not merely about the conditions under which the expression is true (cf. e.g. Davidson 1967). What is more, the meaning of complex expressions cannot be reliably ascertained with exclusive reference to the meaning and structure of their constituents (cf. Szabó 2013). Therefore, even though (a) and (b) below are true under the same set of criteria, the meaning of those expressions will be taken to be non-identical:

- (a) The piece lasts half a minute.
- (b) The piece lasts thirty seconds.

With this in mind, we look into the temporal domain by isolating two types of time-quantification construals expressed through nominal phrases, as found in authentic Polish and English language data. These types are termed "cumulative" and "fractional". The former is observed in time quantification when the user mentally organises and linguistically represents time as an aggregate of units, e.g. "thirty seconds", "fifteen minutes", "six months". In the latter, time is mentally organised and linguistically represented as a fragment of a superordinate unit, e.g. "half a minute", "a quarter of an hour", "half a year".

The study examines the interplay between those two construals interlingually – for English and Polish – and intralingually, by identifying and discussing the analogies and disanalogies in the conventionalisation of cumulative and fractional construals at different levels of temporal granularity – for the seconds-minute (*30 seconds* vs. *half + minute*) and minutes-hour levels (*30 minutes* vs. *half + hour*). We first report the results of distributional analyses based on reference corpora – the British National Corpus and the National Corpus of Polish. The quantitative component is then supplemented by qualitative investigation of English and Polish samples, based on which we argue that the choice between fractional and cumulative structuring can be motivated by the speaker's intention to guide the receptor to construct meanings differently positioned on what can be called the propositionality-formulaicity continuum. In that sense, the fractional expression "half a minute" is more conducive to an interpretation approximating the formulaic end of the continuum, roughly signalling shortness of duration, while its cumulative analogue – "thirty seconds" – could be closer to the propositional end where precision is prioritised.

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Variable aspectual coercion in Spanish fictive motion expressions

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When structural knowledge regarding static situations is formulated in terms of procedural knowledge rooted in the experience of changes of state, the result is a 'fictive' or 'abstract' change expression (cf. Langacker 1991: 149 ff.). Such expressions blur the distinction between stativity and dynamicity. This phenomenon raises interesting questions regarding aspectuality, viewing perspective and, more generally, the distinction between stativity and dynamicity. Some clause components conveying aspectual and perspectival information, e.g. quantifying and temporal adverbs as well as perfect tenses and periphrastic constructions, sustain the "cognitive bias towards dynamism" (Talmy 2000a: 171), while others, such as a characterizing imperfect tense and the absence of a moving or viewing human participant in the immediate context, rather enhance the static view on the depicted entity.

The aim is to explore the variable ways in which structural and procedural elements merge in Spanish fictive motion expressions with oriented-motion verbs and manner-of-motion verbs, e.g. (1) and (2).

(1) *La calzada desciende por la ladera este.* 'The avenue descends on the east hillside.'

(2) *El sendero zigzaguea hacia los campos del cortijo.* 'The path zigzags toward the country fields.'

The metaphorical projection from motion to stativity does not necessarily conform to the aspectual restrictions associated with state descriptions. Instead of relying only on structure-mapping in terms of metaphor and analogy, it therefore seems more fruitful to consider fictive motion as a way of imaginatively integrating action, i.e. of prompting the evocation of the unfolding of some scenario along spatial and temporal coordinates. In the blending approach proposed by Fauconnier (1997: Chapter 6) and Fauconnier and Turner (2002: 279 ff.), the conceptual blend mapped by a metaphorical expression remains connected to the different input spaces. This view permits to account for the fluctuations in the interpretations of the outcome of the blending process.

In addition to the verb's semantics (in particular its kinesthetic dimension) and the profile of the depicted entity (shape, magnitude, functionality), the degree of dynamicity of the blend is further assumed to be determined by a range of lexical and grammatical choices. Among them figure the kind of spatial coordinates, grammatical aspect, quantifying and temporal adverbial modifiers, as well as viewing perspective. A quantitative and qualitative analysis will be performed on data drawn from the online *Corpus de Referencia del Español Actual* (CREA) for a dozen oriented-motion and a dozen manner-of-motion verbs. Per parameter, some factors are expected to reinforce the bias towards dynamism, whereas others will rather downgrade it.

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Animacy & Metonymy: The Case of Spanish DOM with Humans

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Implicational hierarchies or scales are a strong methodological instrument to describe the functioning of different grammatical expressions from a typological point of view. A scale specifies immediately the distribution of a certain grammatical phenomenon in terms of the possibility of its presence or absence. In Spanish, the transitive construction expresses a variation which can be traced back to the *animacy*-scale (1a) (Silverstein, 1976[1985]) and a referential scale (1b) and consists of the variation between a non-prepositional direct object (2a) and a prepositional one (2b) (Bossong, 1985).

(1a) [+DEIC] < [+PROPR] < [+HUM] < [+ANIM] < [-ANIM]

(1b) [+ID EGO]^ [+ID TU] < [+ID EGO]^ [-ID TU] < [-ID EGO]^ [-ID TU]

(2a) Juan detiene \emptyset la pelota.

Juan holds **-DOM** the ball

(2b) Juan detiene **a-** -l ladrón.

Juan holds **+DOM** the thief.

(3a) Juan busca \emptyset una chica.

Juan looks for **-DOM** a girl(friend).

(3b) Juan busca **a** una chica.

Juan looks for **+DOM** a (certain) girl.

In Spanish, the animacy-scale predicts that personal pronouns [+DEIC] and proper names [+PROPR] are necessarily marked +DOM in virtually all of the cases. In addition, the zone of variation (in italics) describes the human NP [+HUM], which are mostly +DOM marked, and the animate NP [+ANIM], which are seldom +DOM marked, and the NP [-ANIM], which are always -DOM marked. That is also the reason why (2b) with a human NP is +DOM and (2a) with an inanimate NP is -DOM.

In cases of (un)determined human NP (3ab), traditionally speaking, there is a variation of \pm DOM in terms of the referential scale (1b), often taken as a variation that can be attributed to *specificity* (Heusinger & Kaiser, 2003).

In a bottom-up approach 161 verbs in more than 4.000 sentences were analysed by means of the 100.000.000 words-*Corpus del Español* (Davies, 2002-). The author shows that cases like (3ab) are actually metonymies of a human NP, where the -DOM expresses a *type* or a *generic* reading, while the +DOM is connected to the concrete expression of a human NP. In addition, these findings are confirmed by the negative grammaticalization process of the article (Kabatek, 2008). So, a language-specific approach sheds light on possible exceptions, which seem to invalidate the scales cross-linguistically, by using only two different and non-related instruments, the animacy-scale and the metonymy, to predict the expression of DOM in a certain context.

In conclusion, it will be shown, that (i) metonymy describes the variation, (ii) because of (i), animacy is the unique factor that describes the functioning of DOM with human NP in Spanish and (iii) because of metonymies there can be changes in categories of the animacy-scale. This serves as a cognitive and plausible solution to a complex variation at all stages of the scale.

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More alike than we thought: creating equivalence between Turkish and Dutch in bilingual speech

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Spontaneous speech data collected from second generation Turkish-Dutch bilinguals is analyzed to pinpoint what kinds of contact effects can be found in their speech. Turkish and Dutch, as structurally distant languages, do not have many shared structures. However, recent data suggests that in their code-switching Turkish-Dutch bilinguals make use of what is shared, and even create more shared structure by combining constructions in intricate ways. The spontaneous speech data is two-fold. Part of it consists of conversations among friend groups with no restriction on their language choice. The other part is monolingual Turkish interviews. This way, both daily mixed language, as well as how language contact is reflected in Turkish can be observed. When the bilingual speakers are in a monolingual Turkish mode, their Dutch is as deactivated as it can be, making it possible to observe how the contact situation and their extensive Dutch usage affect their Turkish. The aim is to contribute to the development of a usage-based account of contact effects.

Second generation Dutch-Turkish bilinguals in the Netherlands are balanced bilinguals, making ample use of both their languages (Backus, 2013). Their speech contains extensive code-switching, including fixed expressions (example 1), the familiar one-word insertions (example 2), and cases of alternation (example 3). (Dutch in italics):

(1) *Dan kan ik ook bijvoorbeeld*, ne biliyim ehm vijf jaar ehm ergens gaan wonen ofzo (Then I can also for example, I dunno ehm, go live somewhere for 5 years or something)

(2) UVT'de rechten okumuş (He studied law in UVT)

(3) şurası bitsin yatalım. *Ik kan ook niet meer* (Let's go to bed when this is over. I also cannot do it anymore)

Transcripts tend to show constant back and forth switching (Demirçay & Backus, 2014). However, there is more. Presumably because Turkish-Dutch bilinguals use Dutch so extensively (Backus, 2013), especially in their daily school or work life, Dutch patterns and constructions have diffused into their Turkish. Even in monolingual mode data, when code-switching is absent, Dutch contact effects are visible through loan translations. In the bilingual mode data, there seems to be a preference for structures that are shared between the two languages, and bilinguals even sometimes create new constructions where the languages are similar but do not quite overlap (*congruent lexicalization*; cf. Muysken, 2000), as in example 4. This latter development was not encountered in earlier studies of this language pair.

(4) *of düdüklü-de yap-ıyo of gewoon pan* (She cooks it either in the pressure cooker or in a regular pan)

The drive towards shared structures is interpreted as the response to the everyday pressure of Turkish and Dutch constructions and ways of saying things always competing for selection. For second generation bilinguals who use a lot of Dutch in their daily lives, many abstract Dutch structures are entrenched in their mental representation (Bybee, 2010). Initial investigation further suggests that what is more entrenched in Turkish tends to be lexical chunks associated with family life, weddings, etc.

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Synecdoches we live through: a corpus-based analysis of English part-whole expressions of the Self from Langacker's Cognitive Grammar perspective

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This presentation focuses on the cognitive linguistic processes in the conceptualization of non-physical aspects of the Self. On one hand, Lakoff says that we conceptualize the Self as “split in two, as if we were made up of an ensemble of at least two parts” (1996: 102). On the other hand, Langacker (2002: 67) defines a bounded region as a limited set of entities which are interconnected through a cognitive routine: “a constellation is thus a region because its component stars are interconnected through a cognitive routine effecting their coordination as points in a schematic image. It is a bounded region because only a particular, limited set of stars are incorporated in the figure”. We argue that the conceptualization of the Self can be considered as such because its limited set of entities are connected through a part-whole cognitive routine (among other routines) and that these unconscious mechanisms at work leave traces in language.

We ask the following questions: Is there a recurring pattern in the use of part-whole expressions to refer to non-physical aspects of the Self in the English language ? Also, what does it say about the way we conceptualize our own internal structure ?

To answer these questions we compiled a corpus of nine different genres (spoken, fiction, magazine, newspaper, academic, psychotherapy session transcripts, psychotherapy client narratives, weblog and internet forums) from where we have extracted English part-whole expressions of the Self. Part-whole expressions of the Self are to be understood as expressions invoking a relationship (in the Cognitive Grammar sense) of a mereological nature which involves one or more participants and where at least one participant is an aspect of the Self ('I felt like *a part of me* needed to die' ; 'I feel like the carefully *glued together identity* I've created in my life *has shattered into a million pieces*' ; '*I'm whole again*' ; '*hold yourself together !*'). We use Langacker's CG framework to propose a taxonomy of these expressions based on the profiles they invoke. Also, we are in line with Palmer (1996: 108-109) when he says that “all concepts are imbued, to varying degrees, with emotional values that constitute part of their imagery” and accordingly we include the dimension of emotional impact to our analysis. From the qualitative analysis of the English corpus we conclude that there is a recurring pattern in the use of part-whole expressions to refer to non-physical aspects of the Self in the English language and we make three observations: 1) part-whole expressions profiling continuity between entities of the Self are positively charged in terms of emotional impact (e.g. 'I'm whole again') whereas 2) part-whole expressions profiling discontinuity between entities of the Self are negatively charged (e.g. 'I'm falling apart'), and finally 3) the higher the degree of discontinuity between the interconnected entities of the Self, the higher the degree of helplessness expressed by the speaker (e.g. 'a part of me thinks I'm wrong' vs. 'it tears me to pieces').

For some expressions of our inner lives the corresponding sensorimotor experience is quite explicit. For instance, the somatic manifestations of anger include an increase of blood pressure and body temperature and this sensorimotor experience provides an explicit motivation for the mappings at work in expressions falling under the ANGER IS HEATED FLUID UNDER PRESSURE conceptual metaphor. The three observations resulting from our analysis will serve as a starting point for a discussion on what could possibly be the motivation underlying part-whole expressions of the Self and their 'bipolar' emotional charging.

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Do pattern detection abilities facilitate language processing? Evidence from naturalistic self-paced reading.

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Frequency is among the most robust predictors of human behaviour. Human beings appear to extract frequency information automatically from their environment, and this includes linguistic information. Guided by the statistical properties of linguistic input, structure is discovered and a probabilistic grammar based on our language experience emerges from the ground up. This ability to extract and entrench the distributional characteristics of natural language underpins usage-based theories of grammar. A wealth of corpus-based and experimental studies have explored the richness of distributional patterns available in corpora and their potential as building blocks of language given general pattern recognition abilities. Despite the existence of some evidence that (visual) pattern recognition abilities correlate with attainment in L2 (Frost et al. 2013), the question of whether general pattern learning abilities directly underpin L1 sensitivity to frequencies of co-occurrence has not yet been investigated.

We analyze data from three tasks: (i) a serial reaction time (SRT) task (Willingham & Goedert-Eshmann 1999); (ii) a word-by-word self-paced reading (SPR) task with 40 (17 male, 23 female) adult native speakers of Russian on the effect of probability of TAM marking on synonym choice (*try* verbs); (iii) a maze-task with 73 (38 male, 35 female) adult native speakers of English on the effect of co-occurrence frequency on constructional variation (gerund vs. *to*-infinitive) and on garden-path sentences involving a temporary ambiguity (direct object vs. complement clause). The first two tasks are run on naturalistic data from corpora, while the third uses artificial stimuli (from Wilson and Garnsey 2009).

In a first round, generalized Linear and Additive Mixed models were fit to the experimental data. First, we examine what kind of information extracted from corpora leaves measurable traces on reading times. Preliminary results suggest that more frequent or more likely distributional patterns correlate significantly with the speed at which these patterns are read, but only marginally so in the smaller (Russian) group (cf. Divjak & Arppe 2014). They also have a significant impact on early parsing decisions, resulting in fewer garden path effects, in artificial sentences. Second, we examine whether sensitivity to usage correlates with an individual's implicit pattern learning abilities. Preliminary results show that, across datasets, performance on the SRT task correlates only marginally significantly with sensitivity to distributional patterns in corpus data as witnessed by shorter reading times and longer reanalysis time at the disambiguating word.

In a second round, the Russian SRT and SPR data was modelled using the Naive Discriminative Learner (Baayen 2011). Models built with NDL consistently show a significantly better fit to the data and a higher prediction accuracy. This performance was further improved by allowing the model to learn during the experiment (i.e. update its weights from sentence to sentence). Performance was given another boost by adjusting the rate at which the model learns for every subject to reflect the subject's individual learning rate as calculated on the basis of the SRT. In other words, unlike regression models, NDL is able to capture how subtle differences in contextual experience co-determine the speed with which sentences are read and processed on an individual basis. The theoretical and methodological implications of these findings for usage-based (corpus) linguistics will be discussed.

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Whose mind do classifications of modality mirror?

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Over the past two decades, a number of theoretical accounts have been proposed to capture modality. Linguists do not agree on the number of modality types to distinguish: Palmer (2001) proposes two types (*event* modality and *propositional* modality), Perkins (1983) suggests three (*dynamic*, *deontic* and *epistemic* modality), and van der Auwera and Plungian (1998) insist on four (*deontic*, *epistemic*, *participant-internal*, and *participant-external* modality). Whence this disagreement? In this talk, we look at the extent to which theoretical linguistic classifications of modality correspond to semantic categories that naïve speakers employ, and the implications this has for usage-based theories of language. Using corpus and behavioral data from (speakers of) Russian, Polish, Czech and Croatian, we unpick existing classifications with the aim to shed light on the number and nature of modal categories that are supported by language use.

In a first step, we analyze random samples of 250 independent observations for the most frequent modal words in all 4 languages, extracted from the national corpora. Observations are annotated for modal type according to Perkins (1983), van der Auwera and Plungian (1998), Bybee et al (1994), and Coates (1995) as well as for morphological, syntactic and semantic usage properties using the Behavioral Profiling approach (Divjak and Gries 2006). Multiple correspondence analysis suggests that modal types and usage properties do not align, and (polytomous) regression models have poor accuracy when predicting modal type from usage. Significantly better results were obtained with modal functions, i.e. possibility, necessity, probability and permission, across all 4 languages. In a second step, we validate our findings experimentally using a forced choice and a sorting task. In the former, naïve native speakers are exposed to definitions and prototypical examples of modal types or functions, then label a number of authentic corpus sentences accordingly. In the latter, naïve native speakers sort authentic corpus sentences into semantically coherent groups. Naïve speakers perform at chance in the labeling task, regardless of whether the classification is type- or function-based, but their intuitive sorting bears close resemblance to the possibility-necessity axis in the function-based classification.

Typologically supported classifications often refer to tendencies shared across languages to substantiate claims about (universal?) cognitive capacities. However, our findings suggest that these classifications, despite being psychologically plausible, may lack a direct link with properties that can be observed in usage samples taken from specific (groups of) languages. Slavonic languages, for example, do not seem to have invested in properties that delineate modal types, and as a consequence, these categories cannot be abstracted from usage and lack cognitive reality for speakers of those languages. This finding questions the wholesale incorporation of existing classifications into a usage-based framework that adheres to the Cognitive Commitment; it encourages cognitive linguists to critically re-examine the concepts on which they build their descriptions and challenges them to take usage based evidence seriously.

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Literal quotation as fictive interaction strategy in conversations by autistic children and controls

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Children with Autistic Spectrum Disorder (ASD) have, since early childhood, deficits in cognitive, behavioral and linguistic performance (APA 2013). An important feature of language in ASD is echolalia, consisting on the literal repetition of previously produced speech. Studies have characterized echolalia as a functional adaptive strategy in autism (see Saad & Goldfeld 2009 for a review). However, little is known about the communicative functions of echolalia in autistic conversation, as no qualitative studies have been carried out to date (see Dornelas & Pascual forth).

We understand functional echolalia as a communicative strategy involving fictive interaction: the use of face-to-face conversation as a frame to structure cognition, discourse and language (Pascual 2002, 2006). At the intra-sentential level, fictive interaction becomes manifested as a direct speech constituent serving to set up what more often than not is not a conversational reality. Examples are: “I was like *Oh my God!*”, to describe the utterer’s emotional state or “*I Have A Dream* foundation’, in which the actual words from Martin Luther King’s speech metonymically serve to make mental contact with a given ideology) (Pascual 2014). This linguistic construction may be used as a communicative strategy in language for specific purposes (Pascual 2002, 2014) as well as in speech and language disorders (Kleppa & Versluis 2008 [forth.]).

Autistic children mostly use literal quotations as fictive interaction constructions. Based on a previous study on Brazilian children with autism (Dornelas & Pascual forth), this type of literal reported speech may be divided into three types, depending on the origin of the direct speech constituent:

- (i) Social communicative event: e.g. ‘*Me desculpa*’ [Pardon me] (to evoke a prior scenario when the child was accidentally hurt by the therapist, rather than the child causing the hitting);
- (ii) Cultural knowledge: e.g. ‘*Representa a sua voz, é a sua vez!*’ [It represents your voice, it’s your time!] (to refer to a political party);
- (iii) Specific prior interaction: e.g. ‘*Você quer fugir Branca de Neve?*’ [Do you want to run away Snow White?] (paraphrasing the hunter in a *Snow White* movie as a means to refer to him).

This study attempts to compare how fictive interaction constructions are used by Brazilian children with autism and by typical developing children. To this aim, we will enlarge our current corpus of naturalistic conversations with new audio-visual recordings of five children with autism, from 4 to 12 years of age, and two control groups (based on chronological and cognitive ages) of five typical developing children each in semi-spontaneous interactions with adults. We expect the three groups to produce creative (i.e. entirely constructed) as well as non-creative (i.e. literal) direct speech used fictively. We do expect autistic children to mostly use non-creative instances and typical developing children to produce more creative fictive interaction instances. Less impaired autistic children are hypothesized to produce more creative instances than more impaired children.

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Dialogic syntax as distributed cognition: Analyzing the structure of engagement

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This paper explores the role of dialogic syntax (Du Bois 2014) as a structural principle organizing the processes of distributed cognition and affective engagement that link co-participants in interaction. Dialogically distributed cognition emerges when interlocutors collaborate to exploit the mutual affordances of language in interaction, jointly solving problems in coordinated ways that would be difficult or impossible to achieve alone. At times, the participants in a conversation become a single dynamically coupled system, mediated by their coordinated communicative activity. The basis for this achievement is complex, involving embodied, cognitive, affective, interactional, sociocultural, and neurophysiological aspects. What is needed to complete this picture is a way of theorizing language as a system and practice capable of contributing to the structure of engagement. Dialogic syntax represents an attempt to come to terms with the full range of phenomena involved in building the linguistic structure of engagement. Drawing on linguistic and cognitive research on structural priming (Garrod & Pickering 2004), distributed cognition (Hollan, Hutchins & Kirsh 2000), and cognitive coupling (A. Clark 2008; Hasson et al. 2012), dialogic syntax seeks to show how a coupled conversational system is created which carries with structural affordances for distributed cognition and collaborative action.

In general terms, dialogic syntax encompasses the linguistic, cognitive, and interactional processes involved when speakers selectively reproduce aspects of prior utterances, and when recipients recognize the resulting parallelisms, and draw analogical inferences from them. Its most visible reflex occurs when one speaker constructs an utterance based on the immediately co-present utterance of a dialogic partner. Words, structures, and other linguistic resources invoked by the first speaker are selectively reproduced by the second. The alignment of utterances yields a pairing of patterns at varying levels of abstraction, ranging from identity of words and affixes, to parallelism of syntactic structures, to equivalence of grammatical categories and abstract features of form, meaning, and function. This mapping generates dialogic resonance, defined as the catalytic activation of affinities across utterances.

The key tool for analyzing the structure of dialogic resonance in conversation is the *diagraph*, defined by Du Bois (2014) as a higher-order, supra-sentential syntactic structure that emerges from the structural coupling of two or more utterances. Consider the dialogue leading to the diagraph in (1):

- (1)
- | | | | | | | |
|---|-----------|--------------------|-----|-------|--------|---------|
| 1 | JENNIFER; | <i>look at</i> | you | being | smart | . |
| 2 | DAN; | | I | 'm | not | smart ? |
| 3 | JENNIFER; | | you | 're | stupid | . |
| 4 | DAN; | <i>do n't call</i> | me | | stupid | . |

This single short diagraph exhibits resonance in pronouns (*you : I : me*), inflection, (*being : 'm : 're*), semantics (*smart : stupid*), syntax (matrix : complement), and pragmatics (irony : literal). By linking juxtaposed utterances via multiple levels of structural and functional analogy, the utterances becomes couple, yielding immediate effects on situated meaning and enduring consequences for the construction of dynamic intersubjectivity. Based on a qualitative analysis of this and many other diagraphs extracted from the Santa Barbara Corpus of Spoken American English, this paper explores how co-participants manage the production of dialogic resonance to constitute themselves and their expressed stances as a conversationally coupled system. The analysis reveals the remarkable sophistication and verbal skill of language users in exploiting the unique capacity of language to articulate precisely structured and finely nuanced mappings between co-participant stances. Knowing how to use dialogic syntax to build the structure of engagement allows interlocutors to form a coupled system, skillfully creating and exploiting systematic affordances for joint attention, distributed cognition, co-construction of meaning, and collaborative action.

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The role of DO-auxiliary in subject-auxiliary inversion: developing Langacker's notion of existential negotiation

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This paper will build on the insights of Langacker (2013) concerning subject-auxiliary inversion (SAI), particularly the notion that such constructions involve “existential negotiation,” i.e. somehow placing the existence or mode of existence of the verbal event under discussion. In addition, Langacker (2013)'s intuition that “*do* is schematic for the class of verbs, giving separate expression to their inherently existential nature,” will be elaborated in line with Hirtle (1997)'s view of *do* as a meaningful element in order to propose that this auxiliary denotes the notion of the full actualization of a verbal event in time. This will allow us to account for the appearance of *do* in SAI structures corresponding to non-inverted constructions containing only the simple form (*He left – Did he leave?*): the interrogative is about whether the complete action of leaving was actualized or not by the subject. Langacker's account will also be completed by putting it into relation with the phenomenon of full verb inversion (FVI), which is not treated in his 2013 paper. FVI will be shown to pose a problem for his explanation, according to which inversion results from a non-subject existential-core element (an existential verb, a polarity or a speech act) displacing the subject by being promoted to initial position as discursive anchor of the sentence. In FVI, non-core elements are fronted, also resulting in inversion (*Into the room walked Mary*); however, this type of inversion differs from SAI in that *do* is not introduced after the initial element (**Into the room did Mary walk*). Non-core elements are also sometimes found in SAI, as in *Bitterly did we regret our decision*. It will be argued that such cases of SAI can be accounted for by the presence of a focus on an exceptionally intense mode of actualization, whence the use of *do* to explicitly express the notion of actualization as part of what is focused on. The role of a locative expression such as *into the room*, on the other hand, is simply to define a locus into which an entity (Mary) is introduced. Since this does not involve any focus on the fact or manner of the verbal event's actualization, *do* is not used in such constructions. We are thus led to a different division of inverted structures than that proposed by Chen (2013), who distinguishes those that merely reverse subject and auxiliary, which are argued to denote non-indicative mood, from those in which the inverted auxiliary-subject order is accompanied by the fronting of a non-subject element, which are treated as involving focus on the fronted item. We would argue that fronting *do*-auxiliary marks focus on the actualization of the verbal event – whether or not the event was actualized in questions, an inexpressibly intense degree of actualization in exclamations, hypotheticalization of actualization in conditionals.

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Experimental arguments for anticipation mechanism in connectionist neural networks

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Even if most information coding in connectionist neural networks can be achieved by massively parallel connections or simultaneous activations in nodes assemblies, comparisons with biology teach us that parts of this information or processing are intrinsically sequential and may need a serial or hierarchical organization to be effective. In the reading process, accessing the phonological sequence of written words is a good example of the interest of sequential information in addition to massively parallel visual processing. Organizing the phonological sequence is a serial architecture issue involving an anticipation mechanism. In the model we develop [1-2], anticipation results from the interaction between hardcoded connections that link together noncontiguous nodes or groups of nodes (cliques) and a memory effect. In this work, we tested thirty healthy volunteers in a priming task to consider anticipation degree in the process of reaching the phonological codes while reading. Our aim was to validate and adapt our model of information processing with real data from psycholinguistic experiments. We created two priming experiments: the first one was designed to get the minimal amount of successive phonemes that allows a faster reading reaction time. In the second experiment, we used this minimal amount of successive phonemes to check if their respective positions in words have an effect on the gain obtained in reading. We controlled the duration of each prime so that it could activate the phonological input lexicon but also their structure to have a good phonological covering between primes and targets. Results of experiment one show that two consecutive phonemes constitute the minimal and necessary quantity of information needed to get a priming effect. The more phonemes we added, the faster subjects were able to read; this is a very common phenomenon that just needs a simple activity memory effect on the nodes of the model to be implemented. In experiment two, we found that presenting distant phonemes could diminish the priming effect until reading reaction times reverted to a baseline. As the distance we introduced between the two phonemes of the prime was increased, the subjects were able to read the target more slowly. We showed that this distance parameter also depended on word length, word structure and word frequency that formed the context of single word reading. Moreover, we found that the consonant / vowel prime structure was an important parameter that also influenced the reading reaction time depending on the phonemic structure of the target rather than its orthographic structure. In conclusion, we provide some arguments for neural network architectures and propose a more plausible associative memory neural network that allows efficient sequence storing and retrieval.

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Pronoun Origins: Early or late, simple or complex?

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Pronouns seem to express the components of communication (the sender, receiver and referent) in reduced terms, acting as placeholders for more complex noun meanings. For von Humboldt (1836), pronouns appeared early in the genesis of grammar, allowing the expression of communicator roles before personal nominalisation began. They appeared in the order of first person (the sender), second person (the receiver) and third person (the content of the utterance). For Heine and Kuteva (2007), pronouns emerged from noun usage as desemanticised and decategorised placemarkers for nouns. The three persons probably emerged together – and in quite different ways in different languages.

Pronouns are devalued in current grammars. For Hurford (1994), “A pronoun is typically a little word that stands in place of a noun phrase”. It is grammatically more constrained than a noun phrase, and therefore simpler; and the different natures of the three persons is trivial. Hudson (1998), using a very different approach to grammar, nonetheless largely agrees with Hurford. Evans and Green (2006), give only two pages on the role of pronouns in cognitive linguistics, and largely agree with Hurford and Hudson about their nature.

Benveniste (1970) sees first and second person pronouns as different from third person: “I” and “you” reflect roles in the communicative act, the third person is just part of the signal. Benveniste therefore describes the third person as a “non-person”. Van Hoek (2007) builds a similar model from a cognitive linguistics viewpoint, discussing the “on-stage” and “offstage” nature of pronouns. She sees the first and second person as representative of the actual sender and receiver, who are able to share a view of the utterance as a performance which may include themselves. The third person, in contrast, is “held at arm’s length”.

This paper uses van Hoek (2007) and Edwardes (2014) to explore the origins of pronouns. It proposes that pronouns come from the exchange of social models, and they represent a meta-awareness of the communication act. They require hierarchical cognitive modelling: the communication model (sender-signal-receiver) is viewed by the sender and receiver as if they are outside the communication, and their communicative roles are then represented within the signal (for example, as actor-action-patient). I model myself as the sender or receiver, and then model the sender or receiver modelling themselves within the signal – our models of me and you can also model me and you. Pronouns allow the different modelling levels to be collapsed into a single conceptual whole of selfhood.

The paper discusses the capacity to model selves within modelled selves, and its role within the genesis of language. It shows that pronouns represent a sophisticated form of cognition which probably came relatively late in language genesis.

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Language Evolution, Narrative and the Nature of Cognition

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There exist two possible explanations for the origins of language. The first proposes the sudden appearance of fully complex language (e.g. Hauser, Chomsky and Fitch, 2002) on the basis that '[l]anguage is like flight: an all or nothing behaviour' (Fauconnier and Turner, 2008: 146). This principally relies on a notion of a dramatic evolutionary leap, or *saltation*, where it is likened where it is likened to a random alteration to a car engine that results in improved performance. The second, more mainstream, account favoured by this paper appeals to neo-Darwinian principles of gradual, incremental change. Two schools of thought in gradualism may be identified. Firstly, there are those who propose a fully propositional holistic protolanguage that was subsequently fractionated into combinatorial units (e.g. Fitch, 2010). And secondly, accounts that suggest that the earliest forms of language were pairings of meaning with either basic gestures or sound units that were subsequently concatenated into simple propositions (e.g. Tallerman, 2012). Adopting this later notion of a gradual protolanguage, this paper draws on recent theories of the evolutionary appearance of complex language (e.g. Jackendoff, 2010). Following Tomasello (2008) we identify three major stages corresponding to specific functions in language. The first, mutualism, requires a relatively simple syntax for a grammar of requesting. The second, indirect reciprocity, involves a grammar of informing. This entails a more complex syntax containing elements for the expression of spatial displacement and attitude. The final stage, group selection, necessitates a grammar for sharing and, crucially, narrative with temporal displacement and complex reference.

Drawing on the above theories and evidence from empirical studies into semantic and episodic memory (e.g. Fernyhough, 2012), this paper will reveal how narrative is an essential cognitive tool for what Gottschall (2010) calls 'homo fictus', a species which tells itself stories essentially because it cannot stop (Boyd, 2009). We will demonstrate how narrative not only facilitates the formation of a coherent conception of the self (Young and Saver, 2001) and of others (Austin, 2010; Herman, 2003, 2013; Zunshine, 2006), thus enabling the growth and coherence of cultures, but also provides us with a means of understanding the world in more and more complex ways. We will ultimately conclude that without narrative, there can be neither complex forms of cognition nor abstract scientific thought.

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Using Domain Matrices to Describe the Semantics of Compound Nouns

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In order to understand the meaning of a noun-noun compound, language users have to know not only the meanings of the constituent words, but also the semantic relation between them: *Pain pills* are meant to eliminate pain, while *sleeping pills* are meant to *promote* sleep, not eliminate it. This implicit relationship between the constituents has been a hotly debated topic in linguistics. Many previous approaches consist of lists of relations (Hatcher 1960; Adams 1973; Levi 1978; Warren 1978). Such lists differ greatly in specificity, from only four to more than twenty relations being used. Most approaches also explicitly exclude compounds that are difficult to classify.

Recently, the view that semantic relations in compounds cannot be exhaustively listed has become more popular. Bauer and Tarasova (2013) speculate that “[t]he ideal set of relationships would probably have to be motivated independently of the patterns existing in compounds”. In my presentation, I argue that we can find this independent motivation in the semantics of the constituent nouns, and I use the descriptive tools of Langacker’s Cognitive Grammar (Langacker 1987; 2008) to explore this hypothesis. Specifically, I use the concept of “semantic domain” as it is used in Cognitive Grammar to explore the relationship between the semantics of a noun and how that noun behaves in compounds. The meaning of a lexical is seen as a matrix of semantic domains. Some lexical items have highly complex domain matrices, while others have simple domain matrices.

I present data taken from a corpus of written Norwegian, a language in which compounding is highly productive. The data material consists of 200 nouns from 8 semantic categories (humans, animals, plants, body parts, emotions, food, artefacts, and substances), and the compounds they occur in. The semantic relations of a subset of these compounds are analyzed, and a taxonomy of semantic relations with prototypical structures is suggested. The overlap between these prototypical categories accounts for many compounds that would otherwise be problematic to classify.

There are many compounds that do not fit easily into any of the main categories in the taxonomy, and I take a closer look at these, revealing that they can be highly established or novel; highly frequent or not very frequent. Frequency and level of established-ness do not seem to correlate well with ease of classification. Analyzing the domain matrices of a subset of the nouns from the data material reveals that the compounds that do not fit into any of the most common semantic relations often have at least one constituent with a highly complex domain matrix. For example, the noun *mann*, ‘man’, has a highly complex domain matrix, and almost 25% of the compounds it forms are not classifiable using the suggested relations. On the other hand, the noun *gaffel* ‘fork’ has a simpler domain matrix and almost all of the compounds it appears in can be classified using the list approach.

The model presented is thus a model where there are some common relations that have the form of prototypical categories that overlap with each other, while other relations are more specific and highly dependent on the semantics of the constituent nouns.

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Five statistical models for Likert-type experimental data on acceptability judgments

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This paper contributes to the ongoing debate over Likert scale experiments, in particular the issues of how to treat acceptability judgment data (as ordinal or interval) and what statistical model is appropriate to apply. We analyze experimental data on marginal change-of-state verbs (e.g. *ukonkretit'* 'concretize', *ovnešnit'* 'externalize') in Russian and compare the outcomes of both parametric and non-parametric statistical models: 1) ANOVA; 2) Ordinal Logistic Regression Model; 3) Regression Mixed-Effects model for Ordinal data (new package for R from 2014); 4) Classification Tree & Random Forests Model; and 5) Regression Tree & Random Forests Model. We argue that all these models are appropriate for our data to a greater or lesser degree. We find that these models focus on different aspects of the data and reveal similar yet complementary insights about how the data is organized.

Likert-type scales are widely used in experiments as a technique for elicitation of acceptability scores. In such studies, the subjects typically are presented with a ranked set of points (usually five or seven) where the top and the bottom ends are descriptively categorized, for example, as "Perfectly normal" and "Unacceptable". There is a controversy in the literature as to whether one can assume equal intervals between values on such a scale of acceptability judgments, and therefore treat this data as interval and apply parametric statistics like ANOVA and Logistic Regression. Although parametric tests have become a common practice for Likert-derived experimental data (Strobl et al. 2009; Dąbrowska 2010; Bermel & Knittl 2012), some scholars find this practice illegitimate and erroneous in terms of data analysis and interpretation (Jamieson 2004). In this paper we address this current debate by comparing the outcomes of parametric and non-parametric statistical models applied to the same data set.

In our study, we collected acceptability scores for 60 standard, marginal, and nonce factitive Russian verbs from 121 native speakers. All stimuli were presented in a sentence borrowed or based upon a real sentence from the Russian National Corpus (www.ruscorpora.ru). We used a five-point numeric scale familiar to all subjects from the grading system in Russian schools. However, instead of naming only the top and the bottom values we also named the midpoints in order to ensure a uniform interpretation of scale points across all subjects. Although this elicitation technique deviates from a typical Likert scale, we believe that it gives us better control over subjects' intuitions and shields the results from unwanted additional opaque variables. The ultimate goal of our study was to test whether the scores of acceptability judgments correlate with four predictor variables: 1) the prefix of the verb (O- vs. U-); 2) speaker's age (middle school children vs. adults); 3) gender (male vs. female); and 4) word category (standard verbs with high token frequency in the corpus, marginal verbs with minimal token frequency in the corpus, and nonce verbs with zero attestations).

Four out of five statistical models that we discuss in this paper have the power to handle multifactorial analysis. Moreover, as opposed to ANOVA, three of these models are appropriate for non-interval data and thus more legitimate for our data. Ordinal Logistic Regression and Ordinal Mixed-Effects Regression are specifically designed for ordinally-scaled data, whereas Classification Tree combined with Random Forests (CART; Strobl et al. 2009) is an alternative non-parametric technique that does not impose interval status on non-intervally-scaled data either. We show that the latter model is the most fruitful regarding this data. Whereas each model identified Word Category as the major predictor, CART additionally showed that age group and prefix have significant effects within local subsets of data (where the factors interact). Overall, the outcomes of parametric and non-parametric tests applied to this data provide comparable results.

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Acquisition of English Scientific Prose Punctuation Patterns

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This paper presents the study of punctuation and typographic devices in science written discourse from the point of view of Russian researchers. Fast development of IT technologies, the globalization of the English language, and language contact stimulated the modification of the set and functional potential of punctuation devices (Truss, 2003). Being an international system of symbols, punctuation suffers changes, which results in the consistency of its usage and problems of its acquisition. The use of novel information technologies allows to analyze which of the factors affecting punctuation acquisition (cognition) is more important.

The leading principles of the Russian and English punctuation are significantly different: the rules in Russian must be strictly obeyed (prescriptive approach), whereas in English it is the communicative intent of the writer that is the most important (anthropological). Learning second language writing students acquire the cognitive demands of the other system (Cook, 2005), this process can be eased if we determine the priority of the factors that affect the choice of a punctuation pattern.

Thus, the challenge is to understand how the process of punctuation acquisition works in the mind of Russian students. To analyze which of the principles is dominating the following approaches are suggested: 1) linguistic experiment (multiple-choice questionnaire) where we analyzed the metalinguistic awareness of punctuation and the hierarchy of punctuation devices in their minds, and 2) the use of self-adaptive models as the cognitive analysis of punctuation usage.

The experimental results show that the punctuation of scientific texts is a multistage process: the use of common punctuation marks is followed by editing the text with typographic devices. In respondents' opinion, the use of punctuation is based on the following: punctuation rules (67%), template requirements (38%), computer editing program (underlining in green when wrong) (31%), intuition (36%), the interference of the knowledge of the English punctuation (6%).

A self-adaptive model (Mitchell, 1997), a neural network in our study, can be learnt or trained by a 'teacher' or by itself according to the feedback from student testing. As usual, an initial model is derived based on the percentage we have got from the experiment. The experimental data contain a number of estimations of the factors which influence the punctuation acquisition process and those become the input for the neural model. As a model is self-adaptive, when new experimental data appear the model is adjusted to these new data and this is the model training process. The preliminary results of using such models for teaching punctuation have been obtained.

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Bridging the gap between conceptual metaphor and embodied experience

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One of the central tenets of conceptual metaphor theory (CMT) is that the system of conceptual metaphors is experientially based. The relationship between this system and our embodied experiences of the world around us and the system of conceptual metaphors, however, needs to be further explored. Johansson Falck and Gibbs (2012) show that metaphorical language including the terms *path* or *road* is structured not only by motion metaphors such as ACTION IS MOTION, LIFE/A PURPOSEFUL ACTIVITY IS A JOURNEY, and PURPOSES ARE DESTINATIONS, but also by people's embodied experiences of the specific artefacts referred to by these terms. Central properties of the artefacts and particularly their functions (cf. Gibson 1979) appear to shape metaphorical language and thought. Very little, however, is still known about the ways in which people's embodied experiences of specific source domain concepts are used, or not used, in metaphorical ways.

This paper is a corpus linguistic analysis of the collocational patterns of the English term *bridge* from the *Corpus of American English (COCA)*. My main aim is to investigate the patterns involving metaphorical and non-metaphorical language use in relation to our embodied experiences of real world bridges. Questions being asked are a) What words collocate with *bridge*? b) What types of collocations are used with metaphorical *bridge* instances and with non-metaphorical *bridge* instances? c) How can the tendencies for some bridge collocations to be metaphorical and others to be non-metaphorical be explained? and d) Are metaphorical *bridge* instances connected with certain aspects of our experiences of bridges, and non-metaphorical bridge instances with others, and if so which and why?

The results further support the finding that metaphorical language involving artefacts is connected with function. The metaphorical bridge primarily has a bridging function (between e.g. *gaps*, *differences* and *divides*). Non-metaphorical bridges, by contrast, are primarily connected with very specific traffic scenes involving *roads*, *rivers*, and *traffic* (i.e. with ones that may be too specific to serve as useful metaphorical source domain concepts). More generally, the study shows how corpus linguistic investigation may be used to inform theory.

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Stagnancy or evolution of feminine professions and occupations in a French dictionary?

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French, with its grammatical and lexical masculine and feminine distinctions, until some decades ago, had a tendency to exclude women from prestigious titles, offices, job offers... In the 17th century, the grammarians Bouhours and Vaugelas gave the ruling : “Each time the masculine and the feminine are together, the masculine takes precedence over the feminine because it is more noble.”

Much debated until today, this rule is still in effect in the foreword of books and documents and reports as a practical shortcut : “the masculine form refers to both men and women; its use is for the purpose of faster readability”. Linguists such as E. Khaznadar, M.-J. Mathieu, M. Yaguello have underlined the importance of including the feminine to avoid discrimination. The use of the feminine gender for titles, positions, professions and occupations is growing, especially in French Canada where the feminine gender is generally the rule rather than the exception. Although there are guides related to the feminisation of titles and positions, and the use of non-sexist writing, inconsistency and a preference for the masculine persists in the dictionary. Our objective, after a brief historical review, is to present the reasons (linguistic, sociological or psychological) for reluctance towards feminisation. The analysis of some 90 professions and occupations within a same dictionary *Le Petit Robert* will show whether or not there was a lexical evolution between 1993 and 2014. Without falling in the debate about sexism, we want to determine at what rate a French dictionary integrates female titles after 20 years, as a statement about French culture and its evolution through language.

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The cognitive status of semantically significant and statistically significant collocations - an experimental approach

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The frequency of co-occurrence of lexical items seems to play an important role in the makeup of our mental lexicon in so far as words which are frequently used together are likely to be stored in a way which facilitates faster access than words that rarely occur in close proximity. According to Sinclair's (1991:100) idiom principle, working with such "semi-preconstructed phrases" is a kind of default strategy, in the sense that their availability to the speaker/listener facilitates the processing of language (cf. also Pawley and Syder 1983). Various linguistic phenomena as well as experimental evidence point in this direction. Phonetic reduction in frequent word combinations (e.g. Bybee 2010: 37-44), for instance, suggests that such chunks are accessed and retrieved as wholes, and Underwood et al. (2004) show in an eye movement experiment that words are accessed faster when they are part of formulaic sequences than in nonformulaic contexts.

The focus of many studies concerned with the cognitive reality of multiword-combinations is on the actual frequency of co-occurrence. This reflects the definition of collocation in what is often referred to as the statistically oriented approach (especially Sinclair 1991: 170). However, frequency is not the only criterion which characterizes multi-word combinations. The so-called significance-oriented approach towards collocations (e.g. Hausmann 2004), as opposed to a purely statistical approach, focuses on semantically transparent combinations which do not have to be exceptionally frequent but in which the choice of items is limited in such a way that a different choice would render the sequence marked, odd or unacceptable. Since these combinations are not predictable from a semantic point of view, they often pose a problem for EFL learners, i.e. transfer from the learner's mother tongue often leads to mistakes and the items are not necessarily frequent enough to be sufficiently represented in the learner's input, either.

This paper will discuss the status of these two types of collocation, i.e. to what extent they actually differ from a cognitive point of view. In this context the results of a word recognition experiment which focuses on the speed of recognition of different types of word combinations among native speakers of English as well as advanced EFL learners will be discussed, addressing such questions as "Do we store combinations because they frequently co-occur or because they are fixed and useful?" and "Is there a difference between native speakers of English and learners of English with respect to the different types of collocations?"

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English function words from a usage-based perspective – what word classes can and cannot do

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Approaching the analysis of language from a cognitive perspective may sometimes lead to a radical throwing overboard of traditional categories. One area in which many construction grammarians and cognitive linguists seem to be happy to make unrevised use of traditional terminology is that of word classes, in particular in the case of function words. Can distinctions such as the ones between determiners, pronouns and adverbs (all given in dictionaries for a word such as *both*) or between prepositions, conjunctions and adverbs (all given in dictionaries for words such as *since*) be justified on cognitive grounds?

The traditional distinction in English between prepositions, subordinating conjunctions and adverbs as in CGEL (Quirk et al. 1985) has been challenged by research such as CamG (Huddleston/Pullum 2002) or Herbst/Schüller (2008), where *since* in all of the following examples is classified as the same word with only one word class and not as three different items *since*_{preposition}, *since*_{conjunction} and *since*_{adverb}:

- (1) I haven't seen her **since** Christmas. (traditional preposition)
- (2) I haven't seen her **since** she left. (traditional subordinating conjunction)
- (3) I haven't seen here **since**. (traditional adverb)

We will offer experimental evidence to show that such subtle distinctions are problematic even for EFL learners after years of formal instruction. Grouping such uses together – as *preposition* (CamG) or as *particle* (Herbst/Schüller 2008) – appears to be cognitively plausible as well as more adequate linguistically. From such a perspective, word class does not predict all aspects of an item's syntactic behaviour (which the traditional word classes don't do either, however). Just as verbs have valency, particles do, too. Thus just as it is an item-specific property of a verb whether it takes an obligatory or an optional NP postverbal complement, we regard it as an item-specific property of a particle whether it takes an obligatory or an optional NP complement. Closer inspection however reveals that the item-specific character of function words is even more prevailing:

Thoughtful and unprejudiced linguistic analyses reveal quite clearly, for example, that the things called adverbs in English do not really form a coherent category at all, nor do prepositions, nor do determiners, nor do conjunctions, nor do complementizers, and on and on. (Tomasello 2003: 173)

In our paper we will present corpus evidence that helps us argue that for a very large proportion of function words, it is extremely hard to find a satisfactory word class label at all simply because their syntactic behaviour is so unique. In such a view we can only regard word classes as partial generalizations over items with a similar distribution in usage. Such word classes can be helpful for lexicography or teaching but it has to be borne in mind that any such classification is a gross oversimplification of the learned facts of usage.

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A cognitive account of language evolution: dual processes, dual trajectories

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There is much disagreement in the broad field that constitutes language evolution. This is a consequence both of the paucity of palaeontological evidence (and the total lack of any linguistic evidence *per se*) from the periods at the heart of the question, and the cross-disciplinary nature of the investigation. This paper draws on the most recent empirical findings from the domains of evolutionary biology, paleontology, ethology, and cognitive psychology and seeks to synthesise the findings, from a linguistic perspective, into a coherent overall theory.

The evolution of hominins stretches back some 7.5 million years to our last common ancestor with chimpanzees, our closest extant relatives in the animal kingdom (Sun *et al*, 2012). Scrutiny of the data indicates that there were two periods of rapid evolutionary change, corresponding to stages of *punctuated equilibrium* (Gould and Eldredge, 1993). The first of these occurred approximately two million years ago with the speciation event of *Homo*, saw a doubling in the size, alongside some reorganisation, of hominin brains, and resulted in the first irrefutable evidence of cognitive behaviour that distinguishes the species from all others. The second period began four to five hundred thousand years ago, again involving reorganisation and growth of the brain with associated behavioural innovations, and gave rise to modern humans by at least two hundred thousand years ago (d'Errico and Henshilwood, 2011).

Based on the premise that 'there is a fundamental duality in human reasoning' (Frankish, 2009: 105) and the evolutionary rationale that owning two processing systems minimizes the effect that the brain has as an extremely expensive organ, I adopt the approach of *dual processing theory* in which modern humans are understood to possess two mental systems (Eagleman, 2011; Evans, 2010). System One is primitive, unconscious, fast and automatic; System Two evolutionarily recent, conscious, slow and reflective. The first period of significant evolutionary change in hominins resulted in a development of the cognitive capacity evident in modern chimpanzees, System One, accompanied by a gestural, and subsequently vocal, protolanguage. It is, however, the second breakthrough that constituted a great leap forward, involving the emergence of System Two type cognition including an advanced theory of mind and a fully recursive, creative cognitive capacity. Fully complex language evolved from its precursor protolanguage to represent the intricacy of System Two thinking. I suggest that such a perspective on the coevolution of language and thought has important implications for the nature of the human capacity for language and for such notions as embodied cognition (e.g. Wilson, 2002).

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A strong view on conceptual metaphor

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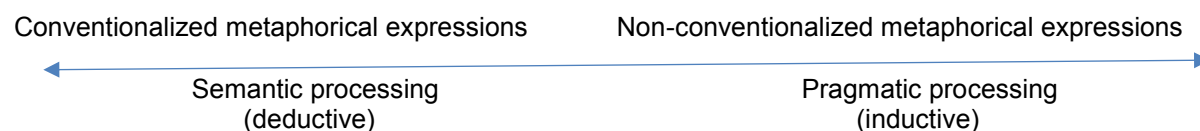
This paper aims at showing that the dichotomy 'literal *versus* metaphorical' in the conceptual metaphor theory does not exist *per se* (Ferreira, 2014), but is a consequence of entrenchment and conventionalization (Langacker, 1987). When a scientist searches for metaphorical expressions in a corpus using methodologies like the MIP (Pragglejaz Group, 2007), his/her judgment (i.e., "Is it metaphorical or literal?") is limited. This limitation is not due to methodological aspects, but rather due to the very nature of the metaphor phenomenon, whose theory was developed in a phenomenological framework (Lakoff & Johnson, 1980), which rejects the Cartesian dualism that underlines the abovementioned dichotomy.

The view of metaphors as opposed to literal expressions has been the foundation of a number of research methodologies (as, for instance, the MIP). These methods aim at having researchers decide, through the use of dictionaries, if the contextual meanings of lexical units in a corpus differ from more basic meanings. These basic meanings are thus considered to be literal. When the contextual meaning is indirectly related to the basic meaning (i.e., when there is a cross-domain mapping of some type), the lexical item is taken to be metaphorical. However, these methodologies do not capture the metaphor phenomenon completely (i. e. conventional semantics), but just emphasize its pragmatic aspects.

The methodology we propose involves searching for the etymological roots of source domains in metaphors as a way to show that even those terms – considered to be more concrete and therefore more literal than target domains – are actually themselves metaphorical. As an example, we could mention the metaphor OLHOS SÃO CÂMERAS FOTOGRÁFICAS in Brazilian Portuguese (EYES ARE PHOTO CAMERAS) (Ferreira, 2014: 140). According to its etymology in Portuguese, the word 'eye' has its roots in 'plant buds', which means that it is related to the VEGETABLE domain. Thus, we conclude that the word 'eye' is a conventional metaphorical expression. Other metaphors, such as NERVES ARE BRANCHES, HAIRS ARE VEGETABLES, SKIN IS GROUND (Ferreira, 2014) can be analyzed in a similar fashion. In this work, we investigate the etymology of basic source domains (Kövecses, 2002).

Therefore, we propose that a relevant distinction to be made - instead of literal *versus* metaphorical meaning - is that between more conventionalized and less conventionalized metaphorical expressions. We suggest that the more conventionalized metaphorical expressions are more dependent on semantic processing, whereas the less conventionalized ones count more on pragmatic inferencing. Moreover, we defend the thesis that the more conventionalized a metaphorical expression is, the less it is prone to being recognized as a metaphor not only by speakers of a speech community, but also by the researcher, who can be culturally biased.

As an alternative to the view of metaphors as being opposed to literal expressions, we would like to propose a model where a strong metaphor perspective is presented. According to this model, metaphors will be classified in a continuum in terms of more or less conventional. This continuum, especially based on Langacker (1987) and neurosciences (Bear, Connors & Paradiso, 2002), can be represented as follows:



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Stagnation and Transition: In search of discourse correlates for summary and sequential scanning

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Cognitive Grammar, unlike formal linguistics, regards word classes as semantically motivated. Thus, nouns profile THINGS and verbs PROCESSES (Langacker 1987, 2008) involving two cognitive operations. The former is associated with the cognitive operation of summary scanning, which presents a single Gestalt without temporal relations; the latter with sequential scanning, which follows development through time. The connection of meaning and grammatical categories has been discussed in multiple studies on the levels of morphology and more recently phonology: in Slavic languages, e.g., Janda (2004) shows how verbal aspect in Slavic is grounded in basic human experiences: how we view matter, its properties, and how we interact with them. Hollman (2013) provide psycholinguistic evidence for the relationship between lexical categorization (nouns vs. verbs) and sound. This paper aims to find the discourse correlates for summary and sequential scanning. We will examine the distribution of grammatical categories in discourse-prominent words in political texts at different points in time, and investigate the extent to which and how summary and sequential scanning contribute to discourse.

This study will use a corpus linguistic method of keyword analysis (KWA). KWA, which is used for different types of research (e.g. Scott and Tribble 2006, Baker et al. 2013), compares word frequencies within a target text against the background of a reference corpus. KWA thus extracts keywords (KWs) that occur in a text more frequently than expected by chance alone and are presumably most important for the interpretation of the text. Data will be drawn from presidential New Year's Addresses (NYAs) in Czech from 1975 to 2013. The NYAs allow the interaction between grammatical categories and discourse strategies to represent societal changes in four different historical periods: the socialist period, the fall of communism, split of the federation, and ascension to the European Union.

Our preliminary study suggested that the distribution of word classes (nouns, adjectives, and verbs) and grammatical categories (person and number) among KWs is motivated by discourse styles of individual speakers (2014). This paper will compare the data from the NYA from each year and focus on the extent to which use of word classes (nouns and verbs) among KWs correlate with different discourse needs to represent situations: more specifically, we will examine how nominal KWs correlate with the representation of the time of political stagnation and the discourse needs to maintain the status quo; how verbal KWs correlate with the times of transition and discourse needs to engage the audience to for support and for action.

The results will test how use of word classes is motivated by discourse extensions of summary and sequential scanning, cognitive operations inherent in nouns and verbs, and how word class distribution fluctuates in tandem with discourse needs at various points of societal change. Not only the quantitative data, but also qualitative analysis of texts will be used to verify the observations.

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Nominalizing nominalizations: the (hi)story of the nominal gerund

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While the concept of ‘nominalization’ as a synchronic transcategorial operation is a widely-discussed topic in cognitive grammar (cf. Langacker 1991; Panther & Thornburg 2001; Heyvaert 2003, 2008), much less attention has been devoted to nominalization in its diachronic sense. In this paper, I will describe and define diachronic nominalization as a gradual and **multi-faceted** process by addressing the history of the English nominal gerund (NG). NGs, illustrated in (1)-(3), are deverbal nouns in *-ing*:

- (1) *K. W: received a slight wound by the grazing of a cannon bullet on his shoulder.* (1688-1689, PPCME)
- (2) *And that same yere was a woman of Westemyster brentt at Tourehylle for kyllynge of hyr hosbond.* (c1475, PPCME2)
- (3) *But I hope soon to hear from yourself what your heart is full of that is, when your nursing of dear mother & father is finished.* (189X, PPCMBE)

Based on a detailed analysis of the NGs found in the Penn corpora of Historical English (PPCME2, PPCME & PPCMBE), it is shown that NGs increasingly resemble prototypical noun phrases at a (i) morpho-syntactic, (ii) discourse-functional and (iii) semantic level:

(i) In terms of its **morphosyntactic features**, the NG comes to allow a fuller range of nominal grounding elements, including the indefinite article *a/an* (e.g. *there is a saving of time in beginning the study of Greek early* [1878, PPCMBE]). Thus NGs, which are typically considered mass nouns (Langacker 1991), develop a count noun construal. At the same time the more ‘clause-like’ determinerless NGs that are grounded by means of temporal integration and subject control (illustrated in (2)) undergo a sharp decrease in frequency and eventually disappear.

(ii) These morphosyntactic changes are connected to a shift in the **discourse-functional behaviour** of the NG. In Late Modern English, NGs did not behave like prototypical NPs, which typically serve to establish salient, trackable discourse participants (Hopper & Thompson 1984). However, it appears that NGs gradually became more likely targets for anaphoric tracking, indicating that NGs increasingly take part in the nominal system of identification and reference (Fonteyn, De Smet & Heyvaert 2015).

(iii) A similar drift towards nominal behavior can be attested in the **semantic properties** of NGs. While NGs are still distinct from prototypical NPs in terms of their conceptual content, profiling events or actions rather than physical objects, they do come to express events/actions that have an object-like sense of endurance/time-stability. First, we find that NGs increasingly refer to generic ‘types of activities’ (e.g. *the procuring of hands to a Petition against a Law is in it self an Act of Sedition* [1670, PPCME]). These are inherently atemporal, meaning that they are not tied to a specific occurrence but are timeless concepts that continue to exist (or endure) in type space. Second, it appears that NGs also increasingly profile so-called ‘historic events’, i.e. events that refer to a unique historical landmark (e.g. *the burning of London, the coming of Christ*). Such historic events also show a higher degree of time-stability than common events because their temporal and spatial information can be considered as ‘general knowledge’ and therefore part of the construction’s meaning, rather than being derived from the surrounding discourse or discourse situation. It is pointed out that these semantic changes do not instantiate Brinton & Traugott’s (2005) process of lexicalization (i.e. the historical change that results in new, more contentful forms), but rather involve the growing association of the [DET + Ving + of] construction with a more ‘object-like’ construal.

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Projector constructions in Twitter

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Part of the speaker's attention in language use has to do with the presentation of the propositional content in an interactional context. As has been shown in Interactional Linguistics (for example Hopper & Thompson 2008), main clauses, somewhat surprisingly, sometimes have their primary function on this context oriented, presentational level. These main clauses prepare the propositional content, which follows in a dependent clause or in a longer stretch of discourse. The different types of main clauses with such a function have been identified in the literature as a family of so called 'projector constructions'. Their structure can be minimal, like Dutch *Het is zo, dat* 'it is so that' and French *C'est ainsi que* (Lahousse & Lamiroy 2014), English *The thing is, that* and German *die Sache ist, dass* (Günthner 2011). However, projector constructions often contain additional elements, like modal particles in German (*doch, ja, halt* etc.), cataphoric demonstrative pronouns like Dutch *dit* 'this', and quantifiers like English *only, most* or *one*, cf. the following examples:

[German] Die Sache ist *ja*, dass Rassismus, Homophobie oder dergleichen nicht angeboren sind. Die Menschen haben freiwillig solche scheiß Ansichten. 'The thing is *ja*, that racism, homophobia etc. are not innate. People take such shit views by free will'

[Dutch] Het probleem is *dit* : Veel rijke industrieën willen uit winstbejag geen vermindering van broeikasgas-uitstoot. Dat kost teveel! 'The problem is *this*: Many rich companies don't want reduction of CO₂ emission. That is too expensive!'

[English] The *one/only/most*/ irritating thing about loyalty is that everyone has their own definition.

In the present paper, we will focus on another additional element, typically a PP, which specifies the topic about which the following dependent clause or discourse provides information. The English example just given has this additional element in the *about loyalty* phrase. Similar examples can be found in Dutch and German data:

[Dutch] Het punt *met Pink floyd* is zodra het begint is het geweldig maar het duurt altijd zo lang voor dat het begint. 'The point *with Pink Floyd* is as soon as it starts it is great but it always takes so long before it starts'

[[German] Das Dumme *an der Liebe* ist ja, dass man mit der gleichen Intensität, mit der man liebt, auch vermisst. 'The stupid thing *regarding love* is, that you miss (someone) with the same intensity that you love (this person)'

The examples given above are taken from a collection of twitter data. In our paper, we will take a closer look at the variation in prepositions used and the structure of the (noun) phrase following the preposition.

The extra PP in projector constructions is a frequent phenomenon in twitter data. We will argue that this is no coincidence: The extra PP provides an economic way to indicate what the utterance is about, a problem which is created by the fixed shortness of the tweets. In this sense, the extra PP can be considered as a genre-specific feature of projector constructions.

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Hausa plant names in the light of conceptual blending

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Hausa language is one of the national languages in Nigeria. It is widely spoken by people as a first or second language in West Africa. Labeled as figurative language (Yakasai 1994) in terms of its structural peculiarities, it contains a rich set of metaphorical and metonymical expressions, which are referred to plant names. As linguistic units, they are lexical compounds, nominal phrases or verbal phrases. They are also units of their own, which have their lexical meaning. Links between the meaning and the recognized features of the designates make the ground for their interpretation from cognitive point of view.

The paper includes an analysis of about 50 Hausa plant names as reflecting the principles of conceptual blending. A cognitive-semiotic approach to metaphor (Brandt, Brandt 2005) is used to demonstrate that the idea of blending is responsible for creating the names. Basing on the concept of generic and input spaces, I try to recognize the blended space which contains a selection of properties drawn from the two spaces. They are diversified through shape, functionality, or other properties of input space and meet the dominant features of the generic space. With this reconstruction, all plant names are divided into groups accounting for the most salient features, which are responsible for name creation. Most of those features stimulate the imagination. As a result the new-created name keeps the reference to both domains, e.g., plant in Latin called *Paullinia pinnata* in Hausa is termed as 'yatsa biyar' (lit. five fingers).



As a main source of data, the publication "Hausa plant names dictionary" by Roger Blench (2007) will be used. It is supported by the dictionary definitions and explanations of the native speakers of Hausa.

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The influence of concept features and semantic field on lexical heterogeneity

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One of the aims of Cognitive Sociolinguistics is to introduce a cognitive perspective to sociolinguistic research (Geeraerts, Kristiansen and Peirsman 2010). In line with this goal, Speelman and Geeraerts (2008) and Geeraerts and Speelman (2010) analyzed the influence of non-traditional conceptual features, such as concept vagueness and salience, on lexical variation in dialects in a study on the semantic field 'the human body' in the Dictionary of Limburgish Dialects. Their study challenges a traditional assumption of dialectometry: that language variation is governed by lectal or geographical factors (Séguy 1971; Nerbonne and Kleiweg 2007; Wieling, Nerbonne and Baayen 2011). The analysis demonstrated that vaguer, less salient or negatively connoted concepts are significantly more prone to variation in concept naming. Moreover, it showed that these kinds of conceptual features can also distort the geographical spread of lexical variants.

Since the studies by Speelman and Geeraerts (2008) and Geeraerts and Speelman (2010) only take one semantic field into account, it remains unclear whether the results that were obtained are stable in other conceptual domains, and whether the amount of lexical heterogeneity that occurs in dialects is also dependent on the semantic field itself. We aim to examine these questions by expanding the scope to the semantic fields 'family and sexuality', 'character and feelings' and 'the physical and abstract world' in the digitized database of the Dictionary of Limburgish Dialects.

Methodologically, we adopt the onomasiological, profile-based approach of the studies by Speelman and Geeraerts (2008) and Geeraerts and Speelman (2010). Our analysis takes a quantitative approach: we aggregate over the concepts that are available in the database in the semantic fields under scrutiny and use mixed-effects linear regression analysis to predict onomasiological heterogeneity, with concept vagueness, salience and negative affect as predictors. This strategy allows us to explore the effect of the conceptual domain on lexical geographical variation. We will also use the results of our regression models for a dialectometric analysis of the Limburgish dialect area.

Our preliminary results reveal that vagueness, lack of salience and negative affect are significant predictors of lexical heterogeneity in other semantic domains than the human body. Moreover, our initial analyses indicate that, as expected, differences between semantic fields occur. Furthermore, our usage-based study provides additional support for the importance of combining semantic and cognitive factors in research on lexical variation.

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A Dynamic Approach to Category Sensitivity of Coordinating Constructions: The Case of *As well as*

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While the coordinator *as well as* (AWA) conjoins most syntactic categories (cf.1), it often fails to conjoin tensed VPs and is always unable to conjoin clauses (cf.2). Let's call this Category Sensitivity Puzzle (CSP). I will solve the CSP by extending **F**'s account of AWA, which was proposed within the dynamic model of grammar (DMG) (cf.K). DMG resembles **G**'s construction grammar, except, crucially, that the statements are interpreted in developmental terms. **F** observes that the proto-AWA conjoins only NPs (cf.3). This follows if the proto-AWA construction IS BASED ON the *as well* (AW) construction (cf.4). AW constructions (e.g., the last sentence in 4) presuppose existence of the addition base (e.g., "the flowers"), but this presupposition cannot be expressed at this stage. This gap will be filled at the next stage by SPELLING OUT the presupposition ON THE MODEL OF comparative construction pairs such as those in (5), assuming that the addition base and the comparison base are VIRTUALLY EQUIVALENT to children. The proto-AWA, once acquired, starts to accumulate its conjoinable categories, but the exception remains as the CSP. I assume with **H** that every language has its own conjunction strategies and an implicational sequence exists on syntactic categories, such that each conjunction strategy covers a contiguous segment in the sequence. **H** proposes that each strategy from four representative languages covers a contingent area in the sequence "NP–VP–clause" (cf.6). In fact, a more detailed implicational sequence can be established within English (cf.7). I argue that the rightmost contingent area of AWA only 'partially' covers the tensed VP area. I also propose that any implicational sequence may be interpreted dynamically. At the initial stage, only NP and clause are allowed to appear on the sequence, and then more categories are gradually added up. The full-fledged sequence is obtained by extending categories from both ends (cf.8). Further I assume that any coordinator in any language starts from somewhere on the sequence, typically from either end or both ends. The AWA starts from NP, and develops from left to right, but it fails to completely include tensed VP and can never include clause, because those are the two categories with [+tense] that are the most distant from NP on the sequence and thus almost or completely unreachable from NP. This may explain the CSP, and eventually the very existence of the implicational sequence.

- (1a) [_{NP} Tom] *as well as* [_{NP} Sue] put them [_{PP} on the desk] *as well as* [_{PP} on the table]. (1b) This is [_{AP} funny] *as well as* [_{AP} scary]. (1c) He has [_{VP} scratched the wall] *as well as* [_{VP} broken the vase].
 (2a) ^{??}*He [_{t-VP} published his own books] *as well as* [_{t-VP} printed them]. (2b) The actors [_{t-VP} danced], *as well as* [_{t-VP} talked]. (2c) * [_{Clause} Mary hated his mother] *as well as* [_{Clause} his mother ignored her].
 (3) 8-year-old (**F&P**): *Adult* (A): Have you got any other things that you like to play with besides Lego? *Child* (C): I got Heccano. You can make lots of things out of [_{NP} that] *as well as* [_{NP} Lego].
 (4) 6-year-old (**F&P**): A: What would you do if you were a princess? C: I would go out in the garden and pick flowers. I like [flowers]. A: You can go out in the garden and pick flowers now, can't you? But what would you do if you were a princess? C: Well, I'd like to have [_{NP} sweets] *as well*.
 (5) *Comparative constructions by children* (**FH**): [φ] is a missing comparison base: (a) Was the Phisohe as good [φ]? (b) Was the Phisohe as good [as this Phisohe here]? (6 years; 10 months)

(6) Possible and Impossible Conjunction Strategies

NP	VP	clause	English: <i>and</i> (NP, VP, clause)
NP	VP	clause	Upper Kuskokwim Athabaskan: Conj1 (NP), Conj2 (VP, clause)
NP	VP	clause	Xârâcùù: Conj1 (NP, VP), Conj2 (clause)
NP	VP	clause	Somali: Conj1 (NP), Conj2 (VP), Conj3 (clause)
NP	VP	clause	IMPOSSIBLE: Conj1 (NP, clause), Conj2 (VP)

(7)

NP	PP	AP	tenseless VP	tensed VP	clause	English: <i>and</i> (NP, ..., clause)
NP	PP	AP	tenseless VP	tensed VP	clause	English: <i>as well as</i> (NP, ..., VP)

NP → PP ↔ AP ↔ tenseless VP ↔ tensed VP ← clause

(8)

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What forms and functions get to the left peripheries in Japanese conditional constructions?

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This paper examines the forms and functions of left periphery constructions that are used by speakers as utterance-initial discourse-pragmatic markers based on conditional clause-linking constructions in Japanese. There is a growing interest in left-periphery and right-periphery expressions pervasively found in typologically distinct languages, as have been discussed in work from various linguistic subfields (Schiffrin 1987, Fraser 1996, Andersen & Fretheim 2000, etc.). Constructional approaches such as Fried (2012), Traugott (2014a, 2014b) and Traugott & Trousdale (2013) have brought together insights from these fields into synchronic and diachronic constructional perspective. My study builds on insights from the latter research by providing a constructional approach to the analysis of the left and right peripheries that instantiate conditional clause-linking constructions in Japanese.

This paper addresses the issues of what variation exists in the forms and functions manifested in the left periphery of Japanese conditional constructions, including conditional clause-linking morphemes, in terms of lexically filled or unfilled 'constructions'. Specifically, in the left periphery we find more or less truncated conditional antecedent constructions used utterance-initially in discourse. To this end, I will discuss two major groups of conditional left-periphery constructions based on my analyses of a spoken (CSJ) and a written corpus (BCCWJ).

The first group of the left periphery are truncated antecedent constructions used as discourse markers, such as *nara* 'if' (e.g., 1), *dattara* 'if (it) is' (e.g., 2), *soo dattara* 'if (it) is so', analogous to English 'if so' or 'then'. This group comes in three formal variations (with or without the copular *da*, and with or without the anaphoric expression). Functionally, however, all these conditional discourse markers are used to anaphorically refer to the appropriate content of the antecedent in discourse:

(1) *sooka. Nara atti mo tetudatte yaru ze*

I see. If that too help-BEN (give) BEN(give) PAR 'If so /Then I will (offer to) help with that, too.'

(2) A: *asu san huransisuko de kaigi. zyapan taun de tabeyoo kana.*

I will have a meeting in S.F. tomorrow. I'm thinking about having dinner in Japan Town.

B: *Dattara kinokuniya de hon katte kite kuranai?*

copula COND Kinokuniya in books buy come BEN (give)-neg

If so /Then, would you please buy a book in Kinokuniya and bring it back?

Whereas the above group does not contain any full predicate (except for the bare copular *da* or *soo da*), the second group of left-periphery expressions contain lexical predicates (mainly verbs), such as the verb *yu* 'say, speak', as seen in (3):

(3) *sottyoku ni yuu* to Lit. 'if (I) speak frankly'; *syoosiki ni ieba* Lit. 'if I speak honestly'

My corpus analysis reveals that the verb *yu* 'speak' in fact collocates extremely highly with conditional constructions in Japanese. This large cluster of utterance-initial antecedent expressions containing verbs of communication is used as a speech-modifier, by which the speaker him/herself qualifies the main utterance that follows the speech-modifier. English analogous expressions are sentential adverbs such as *Frankly* and *Honestly*, or gerundive (*Frankly speaking*) or infinitival constructions (*To be honest with you*). This speech-modifier antecedent with the verb *yu* 'speak' can also be a partially filled construction containing an embedded interrogative construction, as schematized in (4):

(4) [interrogative construction [interrogative wh-word] ... [interrogative particle *ka*]] *to ie ba*]
'if (I) speak [embedded interrogative construction]

This interrogative construction embedded in the conditional antecedent construction is used rhetorically in discourse to raise a question and preface the consequent that is stated (as an answer to the question) by the same speaker. This and many other partially-filled left-periphery constructions will be shown to serve as rhetorical connectors in discourse.

Many of both of the above-discussed groups can be considered variations of speech-act conditionals (Sweetser 1990), but their functions crucially vary among these groups as well as differ from typical speech-act conditionals in English. Clearer differences of these left peripheries from the right peripheries (also based on conditional antecedent-only constructions, discussed elsewhere as insubordination) will also be discussed to situation the present study in the large framework of left and right peripheries manifested by conditional constructions.

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“I Go Run Up” and “a Big Storm Came Running Up”: Manner-Satellite Patterns in English-Speaking Children’s Speech about Motion

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English is typologically characterized as a satellite-framed language, which encodes manner of motion in the main verb and path in a satellite. Özçalışkan (2009) shows that this lexicalization pattern appears at around the age of three and Slobin (2000) elucidates that pre-school English-speaking children, aged 2-4, show remarkably early development of manner verbs in the lexicon. However, Matsumoto (2011) suggests, through experiments with English-speaking adults, that the deictic verb *come* can surpass manner verbs in the competition for the main verb slot when the mover moves into the speaker’s space and/or she moves while interacting with the speaker. In addition, if “From birth, infants attend to moving objects” and initially analyze and conceptualize path (Mandler 2005), then it is possible that English-speaking children at the earliest stages of development give little or no priority to manner.

This presentation will investigate manner-satellite patterns of English-speaking children’s utterances in the CHILDES corpora in relation to the process of language acquisition and cognitive development, with special focus on the manner verb *run*. As shown in (1) and (2), children sometimes express *run* as satellite, with the non-manner verbs *go* and *come* in the main verb.

- (1) a. go run [1;7]
 b. I go run up. [2;1]
 c. I go running with daddy. [2;4]
 d. I goin(g) run away. [3;1]
- (2) a. and a big storm came running up. [2;8]
 b. two little duck(s) came running back. [3;4]

The number of the tokens with GO+{*run/running*} is 61, with 30 child tokens (49%) and 31 adult tokens (51%). (Verbs in small capital letters show that all inflected forms are included.) In children’s speech, this pattern is observed from the age of 1;7 -- almost the same age from which children start tracking an object’s motion from “here” to somewhere (cf. Kumagai 2006) -- to 4;10, and most of the verbs appear in the present tense or present progressive, some are preceded by *let’s*. As for COME+{*run/running*}, the number of utterances is 47, and 13 (28%) are child tokens, which start appearing from the age of 2;8. There are no examples of COME+*run* amongst child tokens as it is only used by adults. The results suggest that (i) GO +{*run/running*} is used by young children to convey a conflated notion of motion, futurity and intention like *be going to*, which disappears as they learn how to verbalize each of these meanings, and (ii) COME+*running* is learned at approximately age three, i.e. the age from which children show “early sensitivity to language-specific patterns” (Özçalışkan 2009) and “categorize scenes” in constructing “verb-general constructions” (Tomasello 1999).

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Embodied Cognition and Intersubjectivity in Yoga

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Yoga has become a transnational phenomenon, and there is a growing academic literature on its cultural history, some of which critically examines socio-cultural constructions of bodies and practices (Alter 2004; Singleton 2010; White et al. 2013). There is also a sizeable literature on the medical, neurophysiological, etc., benefits of meditation and yoga. However, yoga has not been widely theorized as a site for looking at language, cognition, and embodiment in an interactive context. Thus, while there is a fairly extensive literature on the phenomenology of dance (Sheets-Johnstone 1980), Albright 2011), not much has been written about the phenomenology of yoga and embodiment. However, I argue in this paper that yoga presents an ideal phenomenological case study for social cognition because it is an embodied practice. Furthermore, it involves first-, second-, as well as third-person perspectives. Recognizing this requires taking the yoga student-teacher relationship into account. Once we do that, we see that both teachers and students focus on their subjective experience, observe the bodies of others, and communicate with one another, and they switch seamlessly among first-, second-, and third-person perspectives. Indeed, in this communicative context, the three perspectives can be said to interpenetrate. Moreover, yoga involves both linguistic as well as non-linguistic communication: an instructor, for example, gives both verbal and non-verbal, “hands-on” cues and adjustments. In other words, yoga involves non-linguistic embodied and linguistically mediated (representational) knowledge.

I use the distinction between body image and body schema as well as the concept of “altercentric participation” (Bråten 1998) to illustrate the intersubjective dimension of embodiment. Body image refers to a system of attitudes, beliefs, and perceptions about one's body; body schema to “certain sensory-motor capacities, abilities, and habits that both enable and constrain movement and the maintenance of posture” (Gallagher 2005, 24). Practitioners have a rich body image, believing they are flexible, or stiff, that frog is a pose they dislike but is beneficial for their hips, etc. The body schema, of which they are not aware, makes it possible for them to move into and maintain poses. However, by drawing attention to precise body position, breath, etc., yoga asks practitioners to bring the body schema to consciousness, to make it explicit, albeit never completely and in an embodied, non-representational way. I argue that the yoga teacher is indispensable in this process, which thereby becomes not subjective, but dialogical. I also examine the relationship and possible interdependence of verbal and non-verbal communication in this interactional context.

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Morally Queasy Brains: Insula and Basal Ganglia Responses to Literal and Metaphoric Disgust Language

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Good and bad are frequently understood via a conceptual metaphor (Lakoff & Johnson, 1980) construing immoral deeds (e.g., “A *bad* crime”) as impure or disgusting deeds (e.g., “A *rotten* crime”). This study investigates the neural processing of literal and metaphoric uses of the same disgust language (e.g., “*The slabs of old deer meat are rotten*” vs. “*Congressman Smith’s statements about marriage are rotten*”).

We find evidence that literal disgust language processing, when compared to non-affective language, recruits areas of the brain closely connected to visceromotor and motivational systems of the brain, including areas of gustatory and olfactory cortices and parts of limbic basal ganglia, i.e., brain regions directly associated with physical disgust in the face of inducers such as spoiled food or vomit. Moreover, the same disgust language when used in metaphor recruits a similar subset of brain regions (i.e., ventral anterior insula and pallidum), when compared to metaphoric language drawing on non-affective domains (e.g., the metaphoric construal of *time* as *motion*). Additionally, a within and cross-modal classification analysis (MVPA) shows evidence of unique neural patterns of activity across voxels in the left anterior insula and adjacent frontal operculum that allow us to distinguish between disgust language and fear-related language, which activates the anterior insula in similar but not identical ways.

Our findings support the general embodiment hypothesis (e.g., Barsalou, 2009; Gallese & Lakoff, 2005; Lakoff, 1987; Niedenthal et al., 2009), showing that disgust language is processed through recruitment of brain areas that also process non-linguistic disgust inducers. Moreover, in line with other recent investigations into the neural validity of conceptual metaphors (Boulenger et al., 2009; Citron & Goldberg, 2014; Lacey et al., 2012), it shows that metaphoric uses of disgust language are grounded in affective and sensorimotor representations relevant to the basic emotion of disgust. On a larger scale, this study suggests that affective metaphor may gain its rhetorical power by drawing upon emotion systems of the brain.

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Toward Modeling the Embodiment of Metaphorical Meanings

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The dynamic nature of metaphorical expression stems in large part from their capacity to ground abstract concepts in everyday discourse. Metaphors abound in everyday discourse, such as the commonplace ways of talking about illness “*I have a cold*” or “*She gave me a cold*”, employ ILLNESS-AS-POSSESSIONS and INFECTION-AS-TRANSFERENCE metaphors, respectively, involving recasting abstract notions like ILLNESS or INFECTION in concrete terms as POSSESSIONS or TRANSFERENCE. Metaphor involves complex mapping between concepts, but also between linguistic and conceptual levels. Various theoretical proposals have been proposed about the way metaphorical meanings perform this grounding or embodiment of abstract concepts in more concrete concepts (Gibbs et al. 2004, Oliva et al. 2013). Yet, given this complexity, constructing working models of the embodiment process requires extensive empirical effort of the appropriate kind, and to our knowledge, no data-oriented work is currently being attempted on the required scale. We therefore propose the first large-scale data-oriented approach to investigating the patterns of embodied meanings in metaphor, which is to say, involving relatively large amounts of corpus data collected automatically without strong theoretical preconceptions about the phenomena involved (e.g. mappings, etc).

We pursue the task of constructing embodied representations of metaphorical meaning, by extending our work in automatically detecting and interpreting metaphor (in the illness and political conflict domains). A range of corpus linguistic work has tackled the problem of detecting and even interpreting metaphor, employing various data resources for this (e.g. Shutova et al. 2010), but as yet, there has not been the same level of data-oriented work on modeling embodied meanings. We consider this to be a significant gap in the research (for similar views, see Glenberg & Robertson 2000). Following the lead of one particularly interesting data-oriented approach to embodied meanings in natural language (Silberer & Lapata 2014), we incorporate some of their methods in order to extend our own approach to modeling metaphorical meanings, with the resulting approach promising to be able to model in large-scale data-oriented terms how such meanings are embodied. The advantage of such an approach is that it will be able to provide a suitably data-oriented means of investigating a long tradition of more theoretical and smaller scale empirical work on the embodiment of metaphorical meanings.

We will discuss our proposal to integrate the data sets used by Silberer and Lapata (2014) in order to extend our own data sets with information that grounds the concepts we identify as metaphorically related. We will also present some initial ideas about how we will extend this to a more comprehensive corpus we are building of metaphors in illness and political conflict discourse that we have gleaned from online data. Such information will enable us to enrich the representations we employ for linking conceptual and linguistic information in our corpora.

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Figuring Metaphorical Dimensions of Meaning in Illness and Political Conflict Discourse

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The shifting and dynamic nature of the illness and political conflict domains is expressed in the richness of discourse from these domains. The extensive set of forms of metaphorical expression in such discourse directly reflects this richness, as has long been observed (e.g. Downing & Mujic 2009). For researchers investigating such phenomena, questions arise about what representations would be adequate to capture this richness, and which should be employed by those studying such metaphorical phenomena. Lacking appropriate representations can severely hamper such research, particularly within corpus-based and computational linguistics.

This paper presents ongoing work, which aims to automatically detect and generate metaphor from the illness and political conflict domains. This project involves deep processing of metaphor using an artificial intelligence approach, requiring especially richer representations. We will present here our attempts to address such resource needs for our own project, as well as to make these resources available to the wider community of metaphor researchers.

We report here our results showing the importance of combining both cognitive and emotional dimensions of conceptual meaning when trying to detect and interpret metaphor. As part of our resource-building efforts, we have constructed a corpus of metaphors, with texts collected from online forums discussing illness, and from those involving debates about politically controversial topics. These texts are then annotated for conceptual and linguistic information, drawing on a range of novel and existing software tools to carry out this annotation task, using both computational tools for metaphor detection (Florou 2013, Shutova et al. 2010), as well as frameworks from cognitive linguistics (e.g. Embodied Construction Grammar, Oliva et al. 2013). Our results have significance for ongoing efforts to model the dimensions of metaphorical meaning. We show that a novel method for combining cognitive aspects of such meaning, such as concreteness and imageability, with detailed information about the sentiment of metaphorical expressions, not only improves our systems capacity to detect metaphors, but also suggests a solution to a long-standing controversy regarding how emotion interacts with concreteness and imageability (e.g. Dellantonio et al. 2014).

We also report how we utilize these results regarding the interaction between these cognitive and emotional dimensions of metaphorical meaning to guide our generation system toward producing more apt metaphors. This paper presents our progress in developing the approach, as well as our most recent efforts to carry out evaluation of our system's capacity to find and produce metaphor in illness and political conflict discourse.

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Accidentally spilled the bag:
Investigating the comprehension of idiomatic variation

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Research on idioms has a long history of only investigating the canonical form (cf. Swinney & Cutler 1979; Gibbs 1986; Cacciari & Tabossi 1988; Titone & Connine 1999). Recent research however, has shown that idioms can occur with a range of variation (cf. Moon 1998; Barlow 2000; Duffley 2013), from lexical variation (e.g. *say / kiss goodbye to something*), partial forms (e.g. *the fat lady is warming up*), and even additional integrated concepts (e.g. *kicked their respective buckets*). Few studies have explored the processing of idiomatic variation (cf. Gibbs et al. 1989; Gibbs & Nayak 1989). McGlone et al. (1994) studied idiomatic variation through a reading task, but did not control for differences in variation (e.g. lexical variation: *more / less than one can chew* vs. addition of a quantifier: *not spill a single bean*). This study investigates the comprehension of several types of idiomatic variation through an eye-tracking study, specifically exploring the effects of variation, in addition to the canonical form and literal meaning.

Four types of variation were included in this study: a synonymous lexical item (e.g. *rock the canoe*), a partial form of the idiom (e.g. *rock things*), an additional concept integrated into the idiom (e.g. *rock the initiative boat*), and a formal blend with another idiom (e.g. *rock the applecart*). These types of variation were compared with their canonical form (i.e. *rock the boat*), as well as with a literal meaning of the words (i.e. in a different context). This experiment included 120 idioms, which varied in length and syntactic structure. The experiment utilized a Latin-square design, where participants saw each idiom once, in one of the six conditions. Sixty native speakers participated in the experiment. The participants' pupil movements were recorded as they read the sentences off the computer screen. Ten percent of the sentences were followed by a true/false comprehension question.

The results show that some types of variation are easier to process than others. For example, total fixation durations are significantly longer on all types of variation, compared with the canonical form, but remarkably longer on partial forms of the idiom. Longer fixation durations are also observed on shorter idioms. Meanwhile, fixations on the literal meaning of the idiom are not significantly longer than the canonical form; however, participants are more likely to answer the comprehension questions associated with the literal meaning of the idiom incorrectly, suggesting that participants are still processing the idiomatic meaning of some idioms even when they occur in a literal context. These findings indicate that the idiomatic meaning of the expression is still activated and accessible, despite the type of variation used or the context in which it occurs.

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Semantic informativeness of *up* and *down* in English particle verbs: insights from the language of the blind and the sighted

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When blind and sighted users of English as L2 are asked to make sense of the figurative meanings of English particle verbs (PVs), they may rely more on the particle or on the lexical part of the verb. This depends on a number of factors (Geld 2009), such as the extent to which their first language is satellite- or verb-framed, and whether the PVs contain semantically light, schematic verbs (*take in* or *put in*; when speakers more readily rely on the particle) or semantically heavier verbs (*cut in* or *break in*; when speakers predominantly rely on the verb). The particles *in* and *out* have been shown to have a different degree of informativeness (semantic contribution in relation to other components in the composite whole): *out* was more informative than *in* (Geld 2011), which was ascribed to the relative default (experiential) status of being inside a container as opposed to being outside a container. Blind users of English as L2 exhibit a bias towards topological determination (reliance on the particle), which may point to the importance of space in their extraordinary experience (Geld and Čutić 2014).

In this paper we explore the informativeness of *up* and *down* in 12 figurative senses of PVs coupling a heavy or light verb (*go*, *put*, *take*, *break*, *cut*, and *pull*) with the particle on a sample of 20 blind and 20 sighted users of English as L2 with similar backgrounds and profiles. We used an adapted version of an instrument previously validated in studies with blind participants (Geld and Čutić 2014), and we analyzed the answers quantitatively and qualitatively. The quantitative results show that there was a difference in the number of answers for *up* and *down* ($F=18.582$; $p<0.05$) in the whole sample. There were significantly more answers for *down*, which suggests that it was more informative than *up*. The qualitative analysis reveals that the participants do partly indicate the grammaticalization path from literal readings, where particles denote upward or downward motion, to their aspectual readings of either inception or completion. Moreover, the meanings of *down* seemed much easier to construe for both groups of participants.

We claim that the difference in the informativeness between *up* and *down* is due to their experiential status within the primary scene (Grady and Johnson 1997). Whereas being up and standing erect refers to a basic and default human experience, being down refers to an extraordinary, non-default situation. The embodiment of the non-default situation is more readily apparent (cf. e.g. the array of special physical sensations when you are down – e.g. crawling on all fours – as opposed to the default status of being up when walking).

Overall, our results once again confirm that strategic construal in L2 and construal in L1 for the blind and sighted speakers hinges on using the same cognitive processes (but possibly to different extents).

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Syntactic variation and diachrony: the Dutch dative alternation

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The Dutch *aan*-dative (cf. example sentence 1) is a post Middle Dutch innovation (1500 AD). In (early) Middle Dutch, the indirect object of the double object construction (DOC) was still formally marked for dative case (sentence 2).

- (1) Hij gaf het boeket rozen aan zijn vrouw.
'He gave the bouquet of roses to his wife.'
- (2) Ic hebbe ghenomen grote have den riken luden. (1270 AD)
I have took large share the-dat rich-dat folk-dat
'I have deprived the rich folk of a large part of their possessions.'

This dative/accusative distinction was virtually completely lost by the end of the Middle Dutch period and the locative preposition *aan* was recruited as a marker of recipient function in early Modern Dutch. From that period onwards, many ditransitive verbs alternate between the double object construction (with zero-marked recipient argument) and the prepositional construction with *aan* – a phenomenon commonly described as the 'dative alternation'.

In this paper, we look at the development of the dative alternation on the basis of a self-compiled corpus of literary prose (1600-1950 AD). We will assess the strength and predictive power of various explanatory variables through a binary logistic regression. More specifically, we will adopt the Diachronic Probabilistic Grammar framework (Szmrecsanyi 2013) to explore real-time changes in the effect of the included predictors: interaction effects between time as a language-external variable and various language-internal predictors can gauge if and to what extent these predictors are stable or unstable diachronically (Szmrecsanyi 2013: 42). We include variables which have been found to have a significant effect on the dative alternation in present-day Dutch (Coleman 2009) or English (Bresnan et al. 2007, Bresnan & Ford 2010), i.e. semantic parameters (e.g. semantic class of the verb, animacy of the arguments), formal parameters (e.g. length of theme and recipient) and discourse parameters (e.g. givenness of theme and recipient). In this way, we will try to provide new insight into the different factors at work in verb pattern alternations, and reveal possible diachronic shifts in their relative weight.

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Perceptual Images of Time: The Comparative Analysis of Data from Russian and English Corpora

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It is difficult to overestimate the importance of the concept of time for contemporary cognitive linguistics. A number of important works (Evans 2004, 2013; Casasanto and Jasmin 2012; Moore, 2014; etc.) examining various aspects of time as a cognitive phenomenon have been published in recent years. At the same time, it is unclear, if all major cognitive aspects of time are involved in the investigation. The mainstream of the cognitive approach to time is likely to be an analysis of space-time relations: whether conceptualization of time performs mainly in space concepts (e.g., Boroditsky 2000; Boroditsky and Ramscar 2002; Casasanto and Boroditsky 2008; Casasanto and Jasmin 2012) or rather they are magnitude-based interdependent phenomena (e.g., Walsh 2003; Cay and Connell 2012).

However, there are some perceptual domains connected with the conceptualization of time that are situated far beyond the time-space dichotomy. Importantly, these domains are culture-specific. In particular, in the Russian language time is often metaphorized as a living creature that has a face (*И здесь отражено лицо времени, в котором он жил*), hands (*Рука времени коснулась всего*), can perform various cognitive and volitional acts, and can communicate with humans in various aspects (*Время торопило; его самого искушает время; время рассудит*, etc.). Such a mode of metaphorization is likely to be extremely rare in English. Meanwhile, in the Russian language an image of time as an object that we can possess, buy, and sell is much less elaborated than in English. In particular, such constructions as *sell time* (e.g., *A job is a job. You sell your time for money to have a better time in the unsold hours*; British National Corpus) and *buy time* (*It might buy you the time you need*; British National Corpus), according to the Russian National Corpus, are not found in Russian, except in some special contexts (buy or sell time on radio or TV).

These and similar observations lead us to more fundamental issues. Time is linked with motion and change; importantly, there are different types of motion and change. In particular, there is no arrow of time in mechanics and in the special theory of relativity; 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 changes. Different perceptual images of time are connected with different types of changes, and the more complex social-cultural structure has a domain, the more cultural-specific images it is connected with. The difference mentioned came about in the wake of differences in cultural history and in the basic cultural models of Russia and England in the 17th-19th centuries. The empiricism and liking for calculation that characterized English culture were opposite to the trust in irrational transcendent power, important for Russian culture.

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Conceptual blending in patristic biblical exegesis

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Religious discourse, especially those its aspects that refer to abstract notions related to concept of God, idea of salvation, spirituality, etc. may be seen as a very complex, systematic and continuous process of conceptual blending with recurrent and refreshed conceptual blends, many of which, when they are well established, become the key elements of a religious doctrine. Such basic Christian terms like “Son of God”, “salvation”, “redemption”, “Good Shepherd”, etc. are – linguistically speaking – conceptual blends accepted by Christianity as vehicles of religious experience and identity.

Various researchers analyzed some aspects of religious Christian doctrine from a cognitive perspective (e. g. Barcelona 2003, DesCamp, Sweetser 2005, Kövecses 2008, Gomola 2010) concentrating on character of conceptualizations used in the Christian discourse and its implications for those who participate in it. The aim of the paper is to look at conceptual blending used in Christian religious discourse in another way and to demonstrate that it was one of the crucial factors and driving forces responsible for origin and spread of Christianity. For the ancient Greeks and Romans, religion was an affair of rituals and practices, while Christianity is a religion of doctrine. The Christian doctrine in its early patristic stage was the result of reworking and reinterpreting ideas of Judaism, which was achieved through the process of exegesis of the Hebrew Bible. Such exegesis including principles of biblical typology or allegorical interpretation of the Bible developed by Origen may be seen first of all as process of conceptual blending resulting in elaboration and transferring onto a different ground the notions of Judaism.

The paper discusses selected examples of the early patristic exegesis – in English, referring occasionally, whenever it is necessary to the Greek text – to demonstrate that from the perspective of cognitive linguistics exegetical interpretations of Church fathers may be seen as conceptual blends, which proves in turn that conceptual blending lies at the foundation of the Christianity and the Christian doctrine.

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On the acquisition of null subjects in Polish. A correspondence analysis

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This analysis is an attempt to trace an individual path in the acquisition of null subject structures by a Polish-speaking child Basia, as observed in the relevant corpus archived in Child Language Data Exchange System (CHILDES). Specifically, more than a thousand clauses have been considered in order to test some hypotheses presented in greater detail below. The analysis employs statistical method of correspondence analysis.

The analysis is premised upon a few methodological claims. First, rather than following a uniform acquisition pattern, the child develops a construction schema such as a clause with a null NP subject in a very individual manner. It makes an analysis of the speech data of a single child worthwhile. Second, not only is the child's acquisition path an individual strategy but the data the child is ultimately exposed to also differ from speaker to speaker. It is then legitimate to analyze the speech of the adult(s) providing the stimulus as well. Third, the analysis follows a bottom-up and not top-down approach to usage and usage-based schemas. Our research provides evidence of the development and augmentation of those schemas.

In light of these assumptions we shall test a set of hypotheses. First, if Polish is a pro-drop language whose rich agreement morphology allows for the use of null referential and non-referential subjects as an unmarked strategy in communication, then child-oriented Polish is no different. Poverty of stimulus for pro-drop structures is thus not expected in the data studied. Second, given the child's sensitivity to animacy and preference for animate tokens we should expect referential null subjects to emerge early and non-referential expletive null subjects and generic null subjects to be less frequent. Third, we expect the child to be attentive to most "obvious" rules governing the use of null subjects in Polish, such as high accessibility of referents from the context. We hypothesize that such an observation will be couched in terms of a respective construction schema very early in the development.

Only the second hypothesis has been confirmed in the research. There is massive evidence that child oriented Polish is special. Dropped subjects are rare, to the point of adults sometimes applying self-corrections after patterns with null subjects. Apparently we need to recognize pragmatic factors in pro-drop phenomena in Polish. Another observation concerning the use of null subjects in child-oriented Polish relates to point of view and OVA and EVA dimensions of construal.

The second claim has been confirmed. The child's world is a world of human animate tokens with few exceptions and those Agents which appear to be types differ only subtly from tokens. Most null subjects are referential NPs, the number of null expletives is lower by far.

As for the third claim, Basia appears to be insensitive to the pragmatic context of a given stretch of discourse. In one spectacular example she asks six questions about her dad, a single third person subject in the whole exchange and not once is this subject dropped. The earliest schema emerging is one with the verb in the imperative mood, often repeated, and then there is a schema with the indicative mood of the verb in what can be treated as verb serialization. The pattern is such that the first finite verb has its subject and then there is a second verb, either coordinated or in parataxis, and now the identical subject is dropped. One striking property of both schemas is a two-verb pattern.

The effect of entrenchment predictors on spoken language production: A corpus study of Russian speech errors

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In the spreading-activation theory of lexical retrieval, whole networks of linguistic units are believed to be activated during language production, and the item that receives the highest proportion of activation is finally selected (Dell, 1986; McNamara, 1992; Stemberger, 1985). It seems reasonable to assume that the degree to which a unit is entrenched in long-term memory affects the amount of activation that it receives, and strongly entrenched units have a better chance of being selected (Schmid, 2007).

Spontaneously produced Russian speech errors (slips of the tongue) of phonological, semantic, and syntactic types were analyzed for factors that may be expected to predict cognitive entrenchment — word frequency, age of acquisition (AoA), target-error co-occurrence strength, word association norms, and word length. The analyses used the data from the Russian National Corpus, Russian Word Association Thesaurus, and experimentally obtained AoA ratings for target and error words. The study involved 657 context-free sound-based noun substitution errors, 1378 context-free meaning-based noun substitution errors, 242 context-free errors that resulted in the selection of a wrong inflectional variant of the target word, and 273 agreement errors in modifier-head constructions. The errors were collected by tape recording and digitally recording everyday conversations, telephone conversations, and live TV and radio programs.

The results show that in phonological substitution errors, lower-frequency nouns tend to be replaced by phonologically related higher-frequency nouns. Likewise, in most types of semantic substitutions (except antonym substitutions), error nouns appear to have higher frequency and are acquired earlier than target nouns. At the same time, antonym errors were found to have much higher measures of target-error associative relatedness and co-occurrence strength. Word length measured in syllables seems to be predictive of the outcome of some types of semantic substitutions. Thus, various factors expected to predict entrenchment may play a role throughout the process of lexical selection including its earlier stages such as the stage of lemma retrieval.

In errors involving inflected word forms, a comparison of target and error frequencies reveals that higher-frequency inflectional variants of a word are more likely to be selected during language production, and that both token word form frequency and type frequency are relevant to the selection of inflected word forms. These findings suggest that the degree of entrenchment, regarded as a mental correlate of usage frequency, may influence the selection of a word's inflected forms.

Evidence from agreement errors in modifier-head constructions indicates that agreement production may be regarded as a lexical choice in which higher-frequency constructions have a better chance of being selected. The error construction may be a well-entrenched recurrent pattern, which a speaker, based on their linguistic experience, tends to use as a default schema instead of using more generalized constructional schemas.

In sum, speech error data provide supportive evidence for the claim that properties of linguistic units regarded as entrenchment predictors are relevant throughout the process of spoken language production, and corroborate the hypothesis that the degree of entrenchment of words and lexicogrammatical structures may be a factor involved in the occurrence of speech errors.

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Verbo-pictorial realizations of image schematic metaphors in cartoons. A case study

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As compared to purely verbal manifestations of image schematic metaphors, their multimodal realizations have received far too little attention in cognitive linguistics than they would deserve (for relevant studies see, e.g., Cienki (2005, 2013), Mittelberg (2010) on co-speech gesture, Forceville (2006, 2013) on film; Zbikowski (2009) and Górská (2010, 2014) on music). It will be argued that image schemas (Johnson 1987, Talmy 1988), since they are skeletal conceptual structures, afford an excellent source domain for metaphors that are realized verbo-visually in cartoons. The cartoons of interest for this study are all by Janusz Kapusta, a Polish artist, whose works have appeared every week in the Polish magazine *Plus-Minus* for over ten years. Highly schematic in the drawings, in the corresponding captions the cartoons reflect on human life and human condition, social and political relations, emotions, beliefs, values, time, and on many other issues. For close examination a selection of the cartoons is chosen in which abstract target concepts are creatively encoded in terms of image schemas (such as VERTICALITY, PATH, CONTAINER, FORCE) whose elements are cued by means of the pictorial and the verbal modalities. In contrast to the gestural medium, films and music, where the relevant elements of image schematic source domains of metaphor are never fully available at once, the cartoons give a "snapshot" of a conceptual image which is ready for inspection as a single gestalt. They are therefore a good testing ground for discussing the question of how the visual and the verbal modality interact in spatialization of abstract ideas. The study shows that the two modalities commonly encode overlapping aspects of meaning, however the degrees of overlap vary. Providing insights into the function of multimodal metaphors and levels of their activation (Müller 2008) the discussion contributes to the ongoing debate on the conceptual nature of metaphor and the embodiment of meaning. The results of the study are also considered in relation to the role of verbo-pictorial metaphor in structuring abstract concepts in a creative way.

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Metonymic organization of self - the case of illeisms

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In the context of public discourse a phenomenon of illeisms has not been properly tackled, although they present an interesting piece of evidence of how language offers a straightforward link to the structure of the human mind. Often considered to be a breach of social etiquette and conventional communicational patterns, cases of referring to one's self by using one's own name or a third person singular pronoun form is usually classified as a stylistic device used to create a mental leap in the process of referring to the person using an illeism and the potential pool of concepts associated with that person.

Both public and private discourse offer a great variety of illeisms (e.g. motherese, honorifics), but we are interested in the cases when the use of proper names is the evidence of speakers' view of their own psyche, in Lacanian* terms. For Lacan, the structures of the human psyche are linguistic in nature, and consist of metaphor and metonymy. We shall pursue his idea in order to research the use of proper names, mostly so called *binomialism* -- uses of FN+LN (first name plus last name, Zwicky 2007) to denote one of the possible functions or roles the named person takes.

Our preliminary research of the public discourse in Croatian media has shown that there is a specific profile of people, more or less familiar to the wider audience, who has a specific discourse style when they use their names to refer to themselves. Typically, they switch between the use of 'I' and 'we', crossing the border line between the individual self and collective self quite freely, but the use of their own names or even of the common noun denoting their professional capacity or function ('mayor', 'director') is symptomatic in terms of facilitating the creation of a figurative class of distinct individuals having some specific, usually socially desirable property. Another interesting point is that the use of pronouns in the third person singular, as might be assumed to be the prototypical use of pronouns in the case of a proper name, is most frequently stalled and thus the issue of the nature of proper names is once again raised (cf. Cruse, 2000, Kripke 1972/1980).

Working in the framework proposed by Panther and Radden (1999), we shall research more closely how The Direct-Reference ICM and referential metonymy influence the use of illeisms and the role of pronouns in the process of activation of specific domains within this ICM. Rather similar to the general metonymic reclassification of proper into common nouns, we propose that here instead of the ICM which allows for more than one individual to be given the same name, as suggested by Barcelona (2003, 2004), those speakers create a personal ICM of their selves where they assign more or less importance to their personality features or public images, as very frequently is the case, with clearly delineated parts of the personality they want to represent by using their names.

Here, again, we take the position of the pragmatic function (Barcelona 2002, 2011) metonymy has in linking the source and the target domain within the same functional domain represented in the complex structure of self a person may have and reveal the organizational force of metonymy in the process of shaping the individual's view of reality and omnipotence as defense.

Transitivity and construal in English emotion verbs: A quantitative investigation

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This talk presents a usage-based analysis of transitivity alternations among English Object-Experiencer (Obj-Exp) verbs (e.g. *amaze*, *frighten*, *depress*), couched within a general cognitive-functional model of voice and transitivity alternation(s) in English. Through a quantitative semantic analysis of a subset of English Obj-Exp verbs, I argue that variability in the use of active/passive constructions among Obj-Exp verbs reflects differences in the tendency of a given verb to be construed as a mental state caused by an external stimulus, or as an attitude directed toward some object (Croft 1993).

While the construal of an individual verb is potentially quite flexible, it is nonetheless sensitive to the speaker's knowledge of the emotion concept denoted by the verb, such that various aspects of that knowledge will render some construals more likely than others in a specific context. The hypothesis is that individual uses of Obj-Exp verbs are sensitive to causal role of the emotional stimulus, and the abruptness and/or evaluative nature of the emotion denoted by the verb, all of which play a significant role in shaping the cognitive construal of the situation and its linguistic expression as an active transitive or as an eventive or stative passive clause.

To test this hypothesis, several thousand sentences involving 20 common Obj-Exp verbs were extracted from the Corpus of Contemporary American English and manually coded for numerous features, including active or passive voice, as well as a detailed coding of the semantic type of stimulus (causer) arguments. Exploratory correspondence analysis of verbs and their stimulus arguments reveals that certain verbs (e.g. *anger*, *annoy*, *amuse*, *scare*, *startle*) are strongly associated with human causers, while other verbs (e.g. *concern*, *amaze*, *fascinate*, *depress*) are more loosely associated with various abstract causers. Obj-Exp verbs vary considerably in their frequency of passivization—18% (*surprised*) to 79% (*fascinated*)—and the clustering pattern parallels the distribution of passive use across verbs, where human-caused verbs tend to be used more often in more prototypically transitive constructions. The effect of stimulus type on passivization is verified via a logistic regression analysis of verb passivization. Quantitative analysis thus reveals a strong correlation between active/passive uses of different verbs and the degree of causal force, of the verb's stimulus argument.

Correspondence analysis also suggests that the use of prepositions among passive Obj-Exp verbs (*surprised at*, *frightened of*, *captivated with*) supports research suggesting that preposition choice is highly sensitive to the duration of the emotional state (Osmond 1997), such that verbs denoting sudden emotions associate strongly with event-marking prepositions (*by*, *at*), while verbs describing emotions with gradual onset are more closely associated with the prepositions (*with*, *about*), which imply a greater evaluative role for the experiencer (e.g. Lewandowska-Tomaszczyk and Wilson 2010).

The approach to Obj-Exp verb meaning advocated here is a highly cognitive one, motivated by recent theoretical work on the psychology of emotion concepts. Such work suggests that emotion concepts do not possess conceptual cores or clusters of semantic features, but rather are actively constructed from loose sets of contextualized exemplars, or 'situated conceptualizations' (Barsalou 2005; Wilson-Mendenhall et al. 2011). Such theories not only mesh well with the usage-based approach to linguistic meaning, but also provide psychological grounding for semantic conceptualization and categorization processes.

Does true synonymy exist? Testing the mutual interchangeability of near-synonyms by means of corpus and experimental data

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An important criterion for determining if two or more words can be considered synonymous is the possibility of using them in the (exact) same contexts without a (significant) change in meaning. Putting stylistic and sociolinguistic factors aside, this paper combines the detailed analysis of corpus data with experimental methods in order to test whether two series of near-synonymous prepositions are interchangeable or not. That is, does a change in form imply a change in meaning?

The near-synonyms in question are Swedish *angående*, *beträffande*, *gällande* and *rörande*, roughly equivalent to English *concerning* and *regarding*, and Spanish *de*, *sobre*, *acerca de* and *en torno a*, which can be translated by *of*, *on*, *about* and *around*. These topic-marking prepositions (TMP) are often used to express the topic or subject of a conversation or mental processes, as in (1) and (2):

- (1) Jag började tänka om *beträffande* det liv som ungmö som jag trodde låg framför mig.
'I started to think again regarding my life as a single that I believed lay ahead of me.'
- (2) ¿Cuál es la postura del Pri *en torno a* la privatización de la industria eléctrica?
'Which is the standpoint of the PRI regarding the privatization of the electrical industry?'

First, the use of these TMPs was investigated by annotating representative samples of corpus examples and by submitting these data to statistical analysis. The results of two logistic regression analyses highlight several factors marking a distinction between the TMPs in both languages (Granvik & Taimitarha 2014, Granvik, submitted). However, despite good overall results in the regression analyses, the predictive capacities of the models are very poor (barely reaching the 50 %-line). This calls into question the significance of these factors and, more importantly, the possibility of distinguishing between the prepositions.

Second, in order to reach more conclusive results, the importance of the distinctive factors was tested by using a complementary method. The factors were used to determine the prototypical usage context for each TMP (cf. Divjak & Gries' 2008 behavioral profile), on the basis of which two parallel sentence completion tests were elaborated. These involve 20 sentences from each language extracted from the corpus data, such as (1) and (2) above but with the TMP slot empty. The tests contain five cases of each preposition, three of which correspond to its prototypical usage context, and two of which are less typical. The informants (134 Swedish and 67 Spanish native speakers) had to choose the preposition they found most suitable for the given context (the four alternatives of each language were provided). The idea was that if informants are indeed guided by the contextual clues, then the coincidence between their choice of TMP and the original corpus example should be higher in prototypical contexts than in non-prototypical contexts.

The results are presented and contrasted in the gap-filling matrices below (cf. Divjak & Gries 2008). As the figures show, the prototypical usage contexts clearly influence the informants' choice of TMP in both languages. Interestingly, though, with regards to Spanish *acerca de* and *en torno a* both the overall result, and the less typical contexts, show a better match between the corpus data and the questionnaire data than the prototypical context. This is possibly due to the fact that the significant factors for these TMPs are the same, whereby the more factors are present, the harder it is to choose between them. In Swedish, the prototypical context is clearly more significant than the less typical one. But there seems to be no clear way of distinguishing between *gällande* and *rörande*.

Overall, the results of the gap-filling task show a strong correlation with the corpus-based analysis, and thus allow us to conclude that the significant contextual factors indeed play a role in the choice of synonym. On the other hand, Swedish *gällande* and *rörande* seem to be largely synonymous.

Pearson residuals for gap-filling preference matrix									
Typical	Angående	Beträffande	Gällande	Rörande	Untypical	Angående	Beträffande	Gällande	Rörande
Angående	2,295528	-2,8793598	1,323066	-0,88651	Angående	1,731306	-1,3720068	-0,43504	0,514552
Beträffande	-2,50396	8,6273821	-3,35091	-4,60421	Beträffand	-0,9885	6,2351871	-2,91843	-3,4268
Gällande	0,330176	-1,4104806	-0,05244	1,84141	Gällande	-1,58467	-2,4516765	1,999843	2,543793
Rörande	-0,11809	-4,344603	2,081798	3,652775	Rörande	0,831577	-2,3696893	1,335634	0,347691
Total					Total				
Angående	2,873026	-3,099565	0,732771	-0,33886	Angående	2,873026	-3,099565	0,732771	-0,33886
Beträffand	-2,58449	10,630454	-4,44479	-5,72975	Beträffand	-2,58449	10,630454	-4,44479	-5,72975
Gällande	-0,71007	-2,641244	1,248639	3,053018	Gällande	-0,71007	-2,641244	1,248639	3,053018
Rörande	0,414403	-4,866239	2,453498	3,005119	Rörande	0,414403	-4,866239	2,453498	3,005119
Typical	de	sobre	acerca de	en torno a	Untypical	de	sobre	acerca de	en torno a
de	11,64791	-3,2584731	-3,17543	-5,24728	de	3,153326	0,3700933	-1,16706	-2,07694
sobre	-2,45098	3,1329769	-0,07543	-1,88836	sobre	0,688998	2,0138038	-2,152	-1,0028
acerca de	-5,32852	0,811734	2,125116	2,635928	acerca de	0,688998	0,0961416	2,444382	-4,0104
en torno a	-3,85777	-0,6708852	1,11727	4,472491	en torno a	-4,49738	-2,4614613	0,868123	7,037032
Total					Total				
de	11,46835	-2,264909	-3,15644	-5,33624	de	11,46835	-2,264909	-3,15644	-5,33624
sobre	-1,66848	3,6955847	-1,47951	-2,08424	sobre	-1,66848	3,6955847	-1,47951	-2,08424
acerca de	-4,07118	0,6839868	3,205812	-0,60398	acerca de	-4,07118	0,6839868	3,205812	-0,60398
en torno a	-5,7019	-2,095099	1,414479	7,983088	en torno a	-5,7019	-2,095099	1,414479	7,983088

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Reportative evidentiality and attribution: an account of 'according to X' expressions.

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This paper presents a critique of studies on 'according to X' constructions with sentential scope based on reported speech and (reportative/inferential) evidentiality. This study argues that reported speech should be ruled out altogether from an account of 'according to X' constructions (contra Mortara Garavelli 1985, Thompson 1996: 519, Semino & Short 2004: 35 and Calaresu 2004: 167) because reported speech constructions encode a speech act and its content (Jäger 2007). 'According to X', by contrast, does not describe a speech act, but either qualifies a sentence in terms of its source or attributes it explicitly to a conceptualiser. Specifically, this paper shows that accounts based on reportative and inferential evidentiality (Wiemer 2005, Giacalone Ramat & Topadze 2007, Pietrandrea 2007, Makartsev 2010), though suitable to explain some occurrences of 'according to X', are unable to account for examples like the following.

- (1) According to Mark, Rome is beautiful.
*Rome is beautiful – I know it because Mark said it. (reportative evidential reading unavailable)
- (2) Italian Secondo me, Roma è bella.
According to me, Rome is beautiful.
'In my view, Rome is beautiful.'
? I conclude that Rome is beautiful, based on some clues (e.g. the quality of architecture).
(inferential evidential reading dubious at best).

Based on examples like (1) and (2), I suggest that an additional semantic category is needed on top of evidentiality to achieve a satisfactory account for 'according to X' constructions. I call this new semantic category "attribution". The function of attribution is to ascribe a proposition to a person who holds it as an opinion/belief/thought. Attribution can be further split into the two sub-categories of "other-attribution", suitable to explain occurrences like (1) and "self-attribution", suitable to explain instances like (2). Self-attribution, relying on a theory of the "divided-self" (Talmy 2000), can be seen as a particular case of other-attribution.

Within a cognitive-semantic approach, my suggested framework for investigating the relationship between (reportative/inferential) evidentiality and attribution is Mental Spaces Theory (Fauconnier 1985, Fauconnier & Sweetser 1996, Kwon 2012), because of its ability to capture viewpoint phenomena. This paper offers a contrastive model for these categories, which are both 'space-builders,' though of a different kind. Evidentials set up mental spaces which are not completely distinct from the Base space, whereas attribution expressions set up a new mental space expressing a new viewpoint, connected to the speaker's experience but separate from it.

My analysis, mainly based on a review of the literature, is supported not only with data from English and Italian but also by a corpus-based case study on Latin *secundum X* 'according to X' constructions with sentential scope, showing that the categories "attribution" and "evidentiality" are distinct.

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Cognitive Distinctions between Nouns and Verbs

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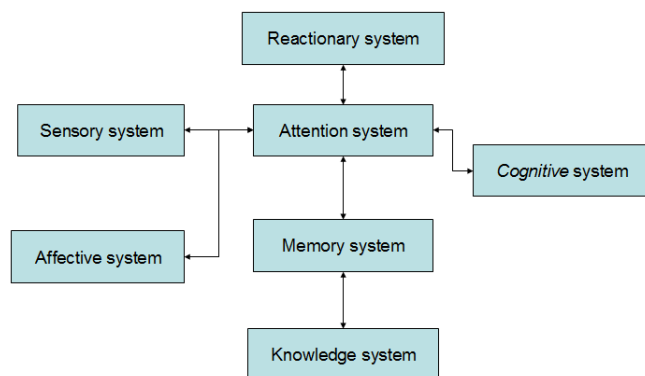
Language typological studies (e.g., Dixon 1980) show that the distinctions between nouns and verbs are universal in all human languages. But what neurological bases and cognitive mechanisms underlie these distinctions? This paper tries to visualize the neurological and cognitive models of nouns and verbs and their semantic disparities.

The cognitive models of nouns and verbs in this study are built upon the author's recent research (Author 2011, 2013) on the cognitive model of the human brain/mind (see Figure, the italicized cognitive is used in its narrow sense), which is a comprehensive summary and critical

evaluation of recent discoveries in neurology, psychology and other cognitive and brain sciences. Under the framework of this model, the paper discusses the cognitive properties of nouns, verbs and their semantic and syntactic discrepancies.

The paper points out that it is the different cognitive mechanisms of nouns and verbs that lead to their distinctive behaviors in information structure and syntactic expression. The paper concludes that the cognitive distinction between nouns and verbs is the driving force for language

evolution, is the mental base for meaningful communication, and is the key to understanding the human languages.



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Constructionalization and the loss of collocational constraints: a case study of Dutch binominal constructions.

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In Traugott and Trousdale (2013), the development of the English binominal quantifier construction ‘a lot of N’ is discussed in great detail as a prime example of constructionalization, i.e. the formation of a new form/meaning-pairing via a series of successive neo-analyses. A crucial part of this development is the loss of collocational constraints: the fact that a lot of, originally a partitive, now co-occurs with abstract nouns such as hope, truth, etc. is indicative of its constructionalization. This paper focuses on two sub-types of binominal constructions in Dutch, in order to further explore the relation between constructionalization as a specific type of constructional change and the loss of collocational constraints that often seems to coincide with it.

The first part of the paper deals with the “N₁-van-een-N₂”, sometimes referred to as the ‘*schat van een kind-cx*’ (lit. a treasure of a child ‘a sweet child’), in which N₁ modifies the semantic head N₂ (Paardekooper 1956; Broekhuis & Den Dikken 2012: 642-652). The following examples from Present-day Dutch show that this construction exhibits a high degree of productivity.

- (1) Een duts van een trainer. ‘a loser of a trainer’ (Twitter, 2012)
- (2) Die damesflikvlooiër van een Pieter. ‘that womanizer of a Peter’ (*De kop van Jut*, 2013)
- (3) Een klepper van een voorgerecht. ‘that topper of a starter’ (Google, 2011)

However, preliminary corpus research of 19th Century Dutch only provides examples with an animate N₂, indicating that the construction has become less constrained over time. More extensive research is needed to confirm whether the construction was in fact limited to animate N₂s in 19th Century language and to document how it has gradually expanded its collocational range.

- (1) Die rakker van een jongen. ‘that rascal of a boy’ (*Het nieuws van den dag*, 1875)
- (2) Dat mormel van een hondje. ‘that monster of a dog’ (*Soerabaijasch Handelsblad*, 1882)
- (3) Zoo’n pracht van een meisje. ‘such a beauty of a girl’ (*Leeuwarder courant*, 1890)

We will present the results from an investigation of the collocational scatter of a set of frequently occurring N₁s (*schat* ‘treasure’, *draak* ‘dragon’, *pracht* ‘beauty’) in a corpus consisting of 19th and early 20th Century Dutch newspapers from the archive at www.delpher.nl.

The second part of the paper turns to Dutch binominal quantifier constructions such as *een hoop* N ‘a heap of N’ which have received far less attention in Diachronic Construction Grammar than their English counterparts (but see De Clerck & Coleman 2013 on *een massa* N ‘a mass of N’). Again, we will use the Delpher corpus to track shifts in the productivity of such patterns over the last 150 to 200 years. A curious case in this regard is for instance the Dutch binominal quantifier construction “*een-menigte*-N” (‘a crowd of N’), the use of which appears to have become more, rather than less, constrained over time. Whereas, in Present-day Dutch *menigte* can only modify nouns that have a human referent, 19th Century Dutch allowed for a much wider variety of nouns, as is attested by the examples below.

- (1) Een menigte verzoekschriften ‘a crowd of appeals’ (*Leydsche courant*, 1851)
- (2) Een menigte boomen ‘a crowd of trees’ (*Soerabaijasch Handelsblad*, 1898)

These examples provide evidence of an increase, rather than a loss, of collocational constraints. We will discuss the implications of these and other findings for the theory of constructionalization as presented in Traugott & Trousdale (2013).

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A Cognitive Linguistic Analysis of the Japanese aspect marker *-tei(ru)* and its pedagogical implications

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The aim of this study is to apply the general framework of Cognitive Linguistics (CL) (Langacker, 1987; Tyler, 2011) to the analysis of the Japanese aspect marker *-tei(ru)* which is used in multiple aspectual contexts, and proposes pedagogical implications. The Japanese aspect marker *-tei(ru)* takes the six distinct interpretations: progressive, resultative, perfect, iterative, habitual, and stative, and most textbooks just introduce *-tei(ru)* as a polysemous marker. This study, on the other hand, argues that *-tei(ru)* itself is not polysemous, but denotes “continuity”, and the six aspectual meanings are formed through the interaction between *-tei(ru)* and other elements such as lexical aspect and pragmatics. This study assumes that these six aspectual meanings form a complex semantic network sharing “continuity” as the core. We argue that the following semantic factors are shared by all of these six aspectual meanings: [±change] and [±static], and divide them into three categories based on these factors: (1) [+change] [+static]: resultative and perfect, (2) [-change] [+static]: habitual and stative, and (3) [-change] [-static]: progressive and iterative.

This study selected four items from each category (resultative, perfect, habitual, and iterative), and addressed the questions of (1) whether the students learn to use *-tei(ru)* in the aspectually novel contexts (perfect, habitual, and iterative) after learning to use *-tei(ru)* in the resultative context as an exemplar, and (2) whether the semantic similarities between these four aspectual meanings affect the order in which they are most easily learned.

The experiment adopts pre/post-test quasi-experimental design. The experiment was administered to one language-learning population: students, who were in Japanese 102 at University of Hawai'i at Mānoa. Both the pre-test and the post-test consist of a sentence completion task with short dialogues. In the test, the settings of the dialogues are presented, and the subjects are prompted to consider the context and choose a predicate from the four possible forms: *-ru* (non-past) form, *-ta* (past) form, *-tei(ru)* (continuous) form, and *-nai* (negative) form.

One-way repeated measure ANOVA on the gained scores of each item revealed that there should be differences on learning to use *-tei(ru)* in these four aspectual contexts ($F(3,111)=17.621$, $p<.000$), and the pairwise comparisons employing the Bonferroni post hoc test shows that the gained scores between resultative and perfect were not significantly different ($p=.14$), whereas the gained scores between resultative, and iterative and resultative and habitual were significantly different ($p=.000$ and $p=.000$).

These results suggest that students learn to use *-tei(ru)* in the aspectually novel context from the one which is semantically closer to the exemplar through an analogy between the exemplar and the novel context.

Table 1: Results of the tests (k=10)

	Resultative	Perfect	Iterative	Habitual
Pre-test	2.16 (21.6%)	1.71 (17.1%)	2.45 (24.5%)	1.53 (15.3%)
Post-test	7.13 (71.3%)	5.34 (53.4%)	4.73 (47.3%)	3.03 (30.3%)

Table 2: Descriptive statistics of the gained scores

Aspect	Mean	SD
Resultative	4.97	2.99
Perfect	3.63	2.50
Iterative	2.20	2.40
Habitual	1.50	2.06

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A Study on Negative Questions

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This paper deals with Negative Questions (henceforth Neg-Q's) and the research questions to be answered are

Research Questions to be answered

- (a) being a Question, a Neg-Q expresses a discrepancy between two propositions. What are the two propositions expressed in a Neg-Q
- (b) why is it that English Neg-Q's become impolite compared to a simple question, while Japanese counterparts seem to show the opposite effect:

Neg-Q's have attracted some attention in the literature (eg. Leech 1983, Brown and Levinson 1987), but none of the previous studies have sufficiently provided answers to the above two aspects of Neg-Q's.

As for (a), Adachi(1999), for example, regards the two propositions as "positive proposition" and "negative proposition" (*you are tired* and *you are not tired* in *Aren't you tired?*). However, there are Neg-Q's, such as (1), for which it is difficult to posit a negative proposition;

- (1)referring to the book that A and B were talking about a while ago but now is in B's bag
A: (to B) Don't you have the book?

As for (b), a cross-language view is necessary to answer (b), which is still scarce in the literature. (2) and (3) seem to suggest that using a Neg-Q is a politeness "strategy" (Gumperz 1982) in making a request in Japanese but not in English; ("A>B" indicates that A is more polite) (# indicates a non-polite sentence)

(2a) #Won't you open the window?

(2b) Will you open the window?

(2a) < (2b)

(3a) Mado-wo akete kure-mase-N-ka? (Japanese counterpart of 2a)

("N" is a negative particle)

(3b) #Mado-wo akete kure-masu-ka? (Japanese counterpart of 2b) (3a) > (3b)

This paper will argue that the two propositions expressed in a Neg-Q are (A)what is expected and (B)what is actually happening, and that the Neg-Q's become impolite both in English and Japanese when the speaker refers to the action not being carried out, but non-impolite when the speaker refers to the state of not being carried out, hence referring to the state rather than action is a pragmatic strategy for building accordance in a "discordant" (Takekuro et al (to appear)) situation.

This constitutes further evidence in support of the typology of languages proposed by Ikegami (1981). Based on the "ba"-theory, Ikegami (1981) argues that there are two kinds of languages; do-language and become-language, each of which put focuses on the action part and the result part respectively. English is apt to describe the action part, hence do-language and often impolite when using Neg-Q's, while Japanese is apt to describe the result part, hence become-language and usually non-impolite when using Neg-Q's.

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When you need to buy time while accessing verbs vs. nouns: Disfluency evidence for the timecourse of sentence planning and lexicalization

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A major function of disfluencies in speech is buying time for planning the upcoming items (Goldman-Eisler 1957). Speakers take advantage of this function when faced with planning problems related to lexical access and/or selection of lexical items from among alternatives (e.g. Maclay & Osgood 1959). Building on this hypothesis, we suggest that accessibility of an item following a disfluency affects the structure of the disfluency, which in turn provides information about how that item is planned. The harder it is to access an item, the more time is needed for the lexical selection process. Disfluencies may therefore be longer in highly competitive contexts to provide more time for lexical access. To test this prediction, we examined the length of the repeated string in repetition disfluencies, as in *I like to listen to the- to the radio in the morning.* or *I like to listen to the- the radio in the morning.*

We examined all instances of one-word and two-word repetitions preceding main verbs and nouns in the Switchboard Corpus (Godfrey *et al.* 1992). This included 2858 verbs and 1899 nouns following one-word repetitions and 776 verbs and 452 nouns following two-word repetitions. To investigate the effect of the following context on the length of the repetition, we tested several predictors that might influence accessibility of the upcoming word: number of semantic competitors of that word (retrieved from Roget's Thesaurus), frequency of the word (retrieved from Switchboard), mean frequency of the semantic competitors, the maximum word frequency in the competitor set, and the forward transitional probability of the word given the preceding context.

Besides accessibility, cohesion of the units preceding the interruption point may influence the length of the repetition. High cohesion between words preceding the interruption point may cause speakers to repeat more than one word, avoiding interrupting a cohesive unit. Following usage-based linguistic theory (Bybee 2002), we assume that cohesion may result from a high degree of co-occurrence between words. Our previous work (Kapatsinski 2005, Harmon & Kapatsinski, Forthcoming) has shown that backward transitional probability is the best cohesion-related predictor of the length of repetition repair, so we included backward transitional probability of the items preceding the disfluency in the model as well.

Multi-model inference with logistic regression (Burnham & Anderson 2002) by means of the MuMIn package (Barton 2013) in R was used to examine the effects of the predictors. For both verbs and nouns, disfluency length was significantly influenced by both accessibility of the upcoming word and cohesion of the preceding string. However, for verbs, accessibility was best captured by context-independent measures: frequency and the cumulative strength of semantic competitors (mean frequency of the competitors * number of competitors). For nouns, accessibility was best captured by forward transitional probability given the preceding context. In other words, longer disfluencies before verbs appear to happen when the verb is facing significant paradigmatic competition from semantically similar verbs. Longer disfluencies before nouns appear to occur when the noun is relatively unpredictable given the preceding context. These results suggest that verbs might be selected for production in a relatively context-independent manner, while nouns tend to be selected in context. The results are consistent with the idea that sentence planning consists of selecting a grammatical frame / argument structure construction first followed by filling in the content words during lexicalization (Garrett 1980) as long as we assume that verbs are part of, or closely linked to the argument structure construction and thus also selected early, while nouns are filled in later on when the frame has already been selected and can act as a context biasing noun selection.

Archetypal Roles and Modality in *The Goldfinch*

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The potential for the application of Cognitive Grammar to literary texts is beginning to be explored (see Hamilton 2003, Harrison and Stockwell 2014, Harrison et al. 2014, Herman 2002, Stockwell 2009). This study applies principles from Ronald Langacker's (1990, 1991, 1987, 2008) Cognitive Grammar alongside modality (Simpson 2004) to an extract from the literary text *The Goldfinch* (2013) by Donna Tartt. The discussion addresses whether an analysis using Cognitive Grammar's *archetypal roles* is effective for literary scenes which display both greater and lesser *narrative urgency* (Simpson 2014).

Existing studies which apply cognitive linguistics to action scenes in fiction (see Stockwell 2009) tend to focus, somewhat logically, on texts which are 'action-packed'. The analysis here considers the role of archetypal roles and force dynamics in a scene which is not a straightforward action scene but instead oscillates between action and inaction; between material and mental processes. In particular, the analysis in this paper explores the relationship between modality and archetypal roles in a pivotal scene from the novel. The paper concludes that a detailed consideration of archetypal roles in the text profiles the disorientation of the narrator, and successfully provides a cognitive stylistic framework for such texts which move between action and stasis.

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Productivity, autonomy, and schema salience: Assessing constructionalization patterns in morphology and syntax

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Productivity is among the most intensely debated concepts in linguistics (cf. e.g. Bauer 2001). In usage-based approaches to language, it is assumed that the productivity of a schema, i.e. its ability to yield new instantiations, is tightly connected to its schema strength, or schema salience (cf. Bybee 1995; Taylor 2002). In this view, the instantiations of a weakly productive schema are likely to exhibit a high degree of autonomy, i.e. independence from the schema (cf. e.g. English *-th* suffixation as in *wealth*, *strength*, etc., or constructional idioms reflecting syntactic patterns which have fallen out of use, e.g. *I kid you not*). Consequently, they do not strengthen their schemas by making salient the patterns according to which they are coined. Highly productive constructions, by contrast, can be assumed to have strong corresponding schemas which sanction new instantiations (cf. Langacker 2008). These assumptions tie in neatly with the idea of a continuum ranging from lexical-contentful to grammatical-procedural units, as proposed by Traugott & Trousdale (2013) in line with the key constructionist concept of the lexicon-syntax continuum (cf. Croft 2001; Goldberg 2006): Lexicalized instantiations of weakly productive schemas tend to exhibit a high degree of idiosyncratic semantic content, which cannot be derived compositionally from its constituent parts. Strong and highly productive schemas, by contrast, mainly serve a 'procedural' function, i.e. signaling "linguistic relations, perspectives and deictic orientation" (Traugott & Trousdale 2013: 12). Thus – in the terminology of Cognitive Grammar –, they modify the *construal* of their constituents rather than their *conceptual content* (Langacker 2008).

The aims of the present paper are twofold. On a more theoretical level, I argue that Traugott & Trousdale's (2013) constructionist model of language change can be insightfully combined with Barðdal's (2008) theory of productivity as well as with key concepts of Langacker's (2008) Cognitive Grammar and Bybee's (2010) usage-based approach to language, yielding a comprehensive and cognitively plausible account of productivity and schema salience. These ideas are corroborated with corpus-based analyses of morphological and syntactic constructions in German (most importantly, nominalization patterns and preposition constructions). The corpus analyses reveal strikingly similar patterns of constructionalization leading to a decrease in productivity and schema salience for both morphological and syntactic constructions (cf. Hartmann 2014). On a more methodological level, I will discuss how quantitative methods can be used to assess the salience of a constructional schema. Most importantly, the heuristic value of collostructional analysis (Stefanowitsch & Gries 2003) for assessing schema strength and determining the construction status of a linguistic unit is discussed. I will argue that collostruction strength can serve as an input variable for more detailed studies investigating the relationship between form and meaning on various levels ranging from individual words to highly schematic syntactic constructions.

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Constructions and long-tailed distribution of their collexemes: A Look at the relationship between low-frequency words and constructional prototypes

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Since Stefanowitsch and Gries (2003) introduced the highly influential methodology of collostructional analysis, disputes have emerged about the superiority of the collostructional strength over the raw frequency of collostructions as the index that measures the construction's degree of attraction to a lexeme and vice versa (cf. Bybee 2010, Gries 2012, Schmid and Küchenhoff 2013). This study approaches the problem differently and highlights the need to appropriately consider relatively low-frequency collexemes. Although a collostructional analysis can elucidate the particular lexemes that are more attracted to the concerned construction than the others, it does not necessarily explicate the aspects of the construction that are responsible for its co-occurrence with infrequent lexemes in the corpus; however, these minor words, when viewed collectively, often account for a considerable amount of the overall sample as the "long tail" distribution. The manual semantic categorization and grouping of those words presents a different picture of the relationship between a construction and its collexemes.

To provide concrete evidence for this, the author used a corpus of more than 1,800 TED Talks (Hasebe 2014) and analyzed constructions, including the ones often featured in previous studies, such as V + NP + as construction (e.g., Gries et al. 2005). The latter corpus, unlike some of the bigger corpora, facilitates a highly detailed examination of not only constructional instances but also their contexts by providing text of all the preceding and subsequent discourses that are often indispensable to appropriately interpreting the text segment in question. Such contextual information, moreover, accompanied by audio/visual resources available for the entire corpus, also enables examination of the pragmatic aspects, or "speech-act scenarios", of the linguistic instances (cf. Langacker 2008; Ch. 13). Consideration about the latter point does not seem to have been fully taken into account by previous studies.

The results of the analysis suggest that while the collostructional approach provides lexical prototypes, which "symbolically" explain the conspicuous semantic properties of the construction, the radial networks behind it should not be defined by lexical combinations alone. Though relationships between constructions and collexemes could be described in terms of degrees of attraction and repulsion as in previous studies, instances that have been considered as evidence for repulsion due to their low frequencies may better be considered as just non-central cases since they too are licensed by none other than the constructional schema that makes other cases more central. Contextual and pragmatic examination of low-frequency words reveals aspects of the construction that are always there but not necessarily highly prominent when it is used with high-frequency words. This also implies the necessity of reconsidering the disputes over collostructional strength and raw frequency from a different perspective, trying to fully appreciate what these two types of data really offer.

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Constructivist theory and methods in aphasia: A usage-based examination of verbs

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Constructivist theory has barely been applied in aphasia, although research is beginning to examine how this approach could provide insight into both aphasia and language storage and processing (e.g. Hatchard et al. 2013). As yet there is little discussion regarding the union of constructivist theory and methods in aphasia. This paper demonstrates how such a union can be effected in a study of verbs, while also discussing potential challenges with this research.

In the constructivist view, language is acquired from the input, beginning with single-word and item-based constructions, before generalisations are made to form more productive abstractions of these. Accordingly, verbs are acquired in an 'uneven' fashion, each one developing in its own time-scale rather than full mastery of a verb or grammatical structure being achieved outright (e.g. Ambridge & Lieven 2011). Such characterisations raise questions about which verbs are retained in aphasia and with what level of abstraction; also, how these may be influenced by input frequency levels. Since more frequent items should be more entrenched, they may be more resilient to loss as well as being easier to retrieve. This would make them more likely candidates for production by people with aphasia.

This study examines the verbs produced in Cinderella narratives by five adults with aphasia, compared with a group of 12 healthy speakers narrating the same story. Specifically, it examines productivity, including indications of 'uneven' knowledge of verbs/ verb-argument structures, and any link with input frequency (in the Spoken British National Corpus, Davies 2004-). Results indicate that the speakers with aphasia vary along a continuum, both in the number of verbs at their disposal and in their productivity with these. The verbs of the most severely impaired participants were mainly limited to a small number of frequent lemmas, produced in frequent, lexically-specific strings. Furthermore, these productions indeed showed signs of unevenness of productivity. The less impaired participants, however, demonstrated a wider variety of verbs and greater productivity, although in some speakers the structures were still relatively basic compared to those of the healthy group. These findings support a constructivist view, thus demonstrating a successful union of this theory with empirical methods in aphasia research. The challenges of applying such an approach in this emerging area of Cognitive Linguistics are also discussed.

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**Granted from a Conjunction to a Discourse Marker:
A usage-based development of (Inter)subjectivity of dangling participles**

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This paper examines the semantic change of the past participle *granted*, that is originally the head of a participial clause, based on analyses of spoken and written corpora. It first starts as an example of grammaticalization (i.e., *granted* is used as a conjunction), and by way of its subjective use of the speaker's concessive evaluation, *granted* comes to acquire a special intersubjective function: to signal the closing of the present topic. The implication is obtained through a pragmatic strengthening, i.e., to incorporate the statistically skewed environmental implicature in which *granted* clause occurs.

The participial clause beginning with *granted* as a conjunction is originally used as a concessive clause. It seems to be originated from the fixed expression like "It is taken for *granted* that..." or "It is *granted* that...". The survey of historical data (COHA) confirms that it is first used as a subordinated clause (=1a), and some come to serve as coordinates, as shown by the use of conjunctive "but" (=1b) and by the suspended use of the clause (=1c). Moreover, even *granted* alone is extracted and used independently (=1d).

- (1) a. *Granted* that much evil had been done (...), Western moral attitudes (...) had changed radically.
- b. *Granted* that there are millions of poor people in the world, but they' are struggling to come out of their poverty.
- c. *Granted* that the systems that are improving is [sic] a good situation. Still, you have ethnic cleansing that's going on in northeast Bosnia. (...) Are you optimistic that will improve?
- d. I liked Dad. He was a bit lazy, *granted*, and he had some strange ideas. But.... (COCA)

The survey of corpora (COCA, COHA, SOAP) also reveals that the syntactic change accompanies with semantic as well as pragmatic change. First, the *granted* clause comes to imply the speaker's subjective stance (=1b,c,d) rather than the general opinion (=1a). Second, the semantic shift is due to the skewed contextual environment of contrast, typically suggested by the presence of *but* or *still* (=1)). The content following *granted* clause comes to expand its use, from the one of logical or semantic contrast (=1a) to meta-linguistic or pragmatic replacement (=1c),(2)); Sometimes *granted* itself can serve even as a discourse marker, suggesting the closing of the present topic (=3)).

- (2) As a way to save the world, digging a ditch (...) would seem to be a modest start. *Granted*, the ditch was not just a ditch. It was meant to be a "swale," an earthwork for slowing the flow of water down a slope on a hobby farm...(COCA)
- (3) A: "No man's supposed to put his hands on no woman." B: "But he drove her to her death." C: "OK, OK. *Granted. Granted.*" B: "I don't care if she was on drugs." C: "Hold it. Hold on. Hold on. (...)"

In sum, *granted* has acquired a new intersubjective constructional meaning; 1) through the change from subordination to coordination and 2) by pragmatic strengthening of the contrastive environment. Moreover, the change from participial subordinate clauses to interpersonal marker is observed as well in other cases (discussed in Hayase 2011, 2014). All in all, the change in question can be viewed together as an example of "constructionalization" through "constructional change" in Traugott and Trousdale (2013)'s sense.

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Utterance condensation: An emergent means of word formation in Chinese

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Four-charactered phrases (FCP)—phrases made up of four characters such as 塞翁失马—play an important role in the lexicon of the Chinese language. They appear in high frequencies and the mastery of them in both speech and writing is seen as an indication of high literary attainment.

These set phrases seem to have come into being from two major sources. The first is historical events/stories. Well-known real-life events or (fictional) fables have been conceptually integrated into many such FCPs. 塞翁失马 “Old man losing his horse” is one example, based on the legend about an old man losing his horse one day but getting two a few days later, because the horse that had gone astray came back with a mate. The phrase therefore means “Every cloud has a silver lining.” The second source of FCPs is lexical combination. Typically, two two-charactered lexemes are combined into an FCP. Take 坚定不移. The first two-charactered word, 坚定 means “firm”; the second two-charactered word 不移 means “not moving.” The entire FCP hence means “firm and unyielding.”

However, recent netizens have invented a new way to form FCPs. This new method does not rely on a story/event or lexical combination as outlined above. Instead, it picks up key words from an utterance and places them together to make up four characters. Consider (1), from a blog:

- (1) “很 累, 感觉自己不会再 爱 了”
Very tired feel self not again love PF²
“(I’m) very tired. I feel I will never love (again).”

This utterance gave rise to the following FCP:

- (2) 累 觉 不 爱
Tired feel no love

Example (3) shows how the four characters in (2) are selected from (1):

- (3) “很累, 感觉自己不会再 爱了”
↓ ↓ ↓ ↓
累 觉 不 爱

In our presentation, we offer explorations of this new linguistic phenomenon, discussing ways in which this innovative morphology can be accounted for from the perspective of cognitive linguistics, the semantic opacity of the FCPs thus created, the frequency and acceptance of these FCPs, and the possibility for these FCPs to enter the “permanent” lexicon of the language.

² Perfective marker

Raining on the typological parade: A corpus investigation of meteorological constructions in German

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Weather expressions are woefully understudied cross-linguistically, despite the fact that they are pervasive in language and are wonderfully idiosyncratic in their syntax. There have been a few attempts at describing them, such as Ruwet's (1986) analysis of French and Eriksen et al.'s (2010) cross-linguistic investigation of meteorological event (ME) constructions. Much like Talmy (1985) did for motion events by proposing typologies of path vs. manner encoding, Eriksen et al. propose a 3-way typology with a focus on precipitation events and maintain that languages try to conform to a preferred pattern in their coding of MEs. Their proposed language types of precipitation- (or p-) encoding are based on whether the argument, predicate, or a combination of both carries the semantic weight of actually coding the weather concept. Correspondingly, the p-encoding language types are: argument type (*Rain falls*), predicate type (*It is raining*), and argument-predicate type (*Rain rains*). The present study attempts to flesh out the current paucity of research on ME constructions by providing an in-depth, corpus-informed, and construction-based analysis of MEs in German.

Eriksen et al. (2010) suggest that Germanic languages predominantly employ what they call *predicate p-encoding* (also labeled as "expletive type", where the argument is a dummy or an expletive element, e.g., *Es regnet* 'It is raining'). Counter to their claim, my analysis shows that German can in fact employ all three kinds of p-encoding strategies (*Es gibt Schnee* 'It gives snow', *Regen regnet* 'Rain rains', *Es regnet Schnee* 'It is raining snow'). The data for the current study were obtained from sources including WebCorp, the Duden, the DWDS, and Google. Frequencies were extracted and both a qualitative and quantitative analysis were carried out.

The constructional approach taken here reveals that German not only supports all three construction types, but that individual construction types are very sensitive to the precipitation type being predicated (e.g., fog, hail, rain, sleet) and that the choice of p-encoding for German ME constructions also relies heavily on a set of lexical, grammatical, and contextual factors, such as TAM-marking, evidentiality, genre, as well as regional differences. I present evidence that the Erikson et al. (2010) typology is too coarse-grained and needs to be refined, at least for German. While this preliminary study highlights the constructional features of German MEs related to precipitation, the consideration of an all-encompassing typology raises the question of how similar environmental predications (diurnal/light, temperature, season, climate, noise, etc.) behave. In accordance with Koptjevskaja-Tamm's (2008) approach to lexical typology, the present paper is concerned with tasks such as outlining which parameters vary not just inter- but intra-lingually, "in what patterns these parameters (co-) occur and what generalisations can be made about attested vs. possible patterns" (2008: 33).

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When and how to infer participants' cognitions in interaction – mental ascription in a conversation analytic framework

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This paper deals with methodological necessities of and constraints on claims about cognitions in naturally occurring interaction. It draws on verbal interaction between participants instead of invented examples. The main question to be addressed is: How can we warrant cognitive claims based on observable action in interactional sequences?

I will claim that it is possible and sometimes even inevitable (cf. Deppermann 2012) to make conclusions about participants' cognitive processes within the methodological framework of Conversation Analysis (CA) and Interactional Linguistics (IL), although these approaches are programmatically agnostic about cognition or even straightforward antimentalistic. CA and IL provide an established methodology to analyze verbal interaction, yet mental aspects are a matter of interest only if they can be ascribed by means of observation of the participants' verbal or nonverbal actions in interaction (cf. e.g. Schegloff 1997) or if they are explicitly claimed or displayed by the speakers (cf. Sacks/Schegloff/Jefferson 1974). Most researchers in CA and IL usually reject the use of cognitive ascription as an analyst's resource to explain participants' actions.

In my paper, I will deal with one interactional linguistic phenomenon whose analysis inevitably requires the ascription of cognitive processes in order to account for the orderliness of discursive action. The object of study are utterances in which their topic is not realized (= topic drop). Dealing with German data, I will analyze instances of analepses, i.e. elliptic utterances in which previously verbalized antecedents are omitted (Hoffmann 1997), for example when in response to „die SUPpe is lecker“ (*the soup is tasty*), the recipient replies by the subjectless turn „ja [die suppe] schmeckt gut“ (*yes, [the soup/it] tastes good*). Analepses may also have far more complex antecedents and can even be indirect, i.e. their interpretation requires the hearer to infer an omitted topic which is not identical, but only indirectly pragmatically or semantically related to verbalized antecedents in the preceding discourse (similar to *bridging* (Clark 1975)). My paper will take two approaches to cognitive reconstruction of analeptic topic drop:

- 1) I will analyze analeptic utterances in their sequential context and thereby demonstrate that specific and even complex cognitive processes of speakers must be assumed in order to account for participants' local actions. I will show how cognitive processes can be methodically inferred in line with strict observational and sequential principles of conversation analysis. This can be done by taking into account participants' displays, valence grammatical, semantic and pragmatic aspects of the analeptic utterance as well as maxims of Relevance Theory.
- 2) I will examine under which sequential circumstances the hearer is able to infer the topic of analeptic utterances, and in which sequential context(s) a sufficient interpretation of an analepsis is not possible for the hearer. To do this, special attention will be paid to cases of topic drop after which the hearer demonstrates mis- or non-understanding. I will single out factors which account for the impossibility of a sufficient interpretation of an analepsis.

The analysis draws on a corpus of 34 hours of spoken German, including different interaction types, e.g. informal interactions between friends, roommates, couples etc. as well as television talkshows.

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How to Construct Time by Using Spatial Concepts in Chinese Sign Language (CSL) and Tibetan Sign Language (TBSL)

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Time - Space metaphor is abundant in spoken languages, gesture and signed languages. By adopting a fieldwork method, this paper intends to give a detailed analyses of how three spatial axes, sagittal axis (front/back), lateral axis (left/right) and vertical axis (up/down) can be used to construct time in Chinese Sign Language (CSL) and Tibetan Sign Language (TBSL). CSL in this paper refers to the signed language used by the Han nationality Deaf in the mainland China. TBSL is the signed language used by the Zang ethnic minority (also known as Tibetan People) Deaf community living in the [Tibetan Autonomous Region](#) on the Tibetan Plateau. TBSL is the first recognized signed language for a minority in China. There is no evidence so far showing that the two signed languages are genetically related.

The preliminary results show that: 1) sagittal axis (front/back): the future is ahead and the past is behind in CSL, while there lacks the similar expressions in TBSL; 2) lateral axis (left/right): the leftward and the rightward are used for earlier times and later times in both CSL and TBSL; 3) vertical axis (up/down): TBSL is more likely to use the upward to stand for the past and the downward represents future. There are also some similar expressions in CSL although they are fewer than TBSL.

With a comparison between Time - Space metaphors in the two languages, this article concludes that most of the metaphors are based on common human experience. It provides further evidence to support the fundamental hypothesis of conceptual metaphor theory first proposed by Lakoff & Johnson (1980). That is, bodily experience plays an important role in the formation of metaphor. For example, both CSL and TBSL use vertical axis to express time because people have the universal experience that it takes some time for an object to fall from the higher place to ground. Chronologically, when they observe the falling object, the higher place corresponds to earlier times and the lower one to later times. However, to interpret the differences of Time - Space metaphors in the two languages, it is indispensable to consider other factors, such as geographic environment, cultural background, religion and etc. For example, there is no explicit expression of sagittal Time - Space metaphor but more vertical ones in TBSL. The possible motivation for this may lie in the fact that Tibetan people live in a high altitude and are surrounded by big mountains. They have more vertical experience than Han Chinese living in a lower altitude.

The paper takes the traditional conceptual metaphor theory as its basis and also introduces cultural cognition into its study. It not only further verifies the theory, but also enhances its viability to a greater extent. A comparison of Time - Space metaphor between CSL and TBSL provides an insight into how cognition, culture and the real world can be embodied.

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The role of minority languages in semantic typology: The case of Aragonese, Catalan and Spanish motion events

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Romance languages have been classified as verb-framed languages in Talmy's typology (1991, 2000). However, it has been argued that languages with the same genetic affiliation and/or within the same typological group do not necessarily show the same behaviour when it comes to describe motion events, that is, there is intratypological variation (see, Goschler and Stefanowitsch 2013). This paper examines whether speakers of Catalan and Aragonese, two Romance minority languages of Aragón (Spain), as well as speakers of the Spanish variety of Aragon, talk about motion in a similar fashion, or whether, on the contrary, given the particular characteristics of these languages and the contact and diglossia situation of their speakers with Spanish, there are intratypological differences.

We report results from three studies on the description of motion events in Catalan, Aragonese, and Spanish based on data from the Frog stories. The first study focuses on how Catalan-Spanish adolescent speakers talk about motion. Results show that, despite being fluent bilinguals, there are some intratypological differences. Although they performed the same task in both languages with similar results, cases of more than two Grounds within the same motion event, e.g. *i va caure d'un barranc en terra* 'and he fell from a cliff to the ground', are only found in Catalan narratives. Although the combination of two Grounds with a motion verb is grammatical in Spanish, it is not used by our informants. The second study shows how Aragonese adult speakers regularly employ several linguistic resources to express motion (e.g. constructions with *fer* 'make' + adverb, the use of adverbial pronouns, and the use of ideophones) that other neighbouring verb-framed languages (Spanish) do not seem to use that often anymore and that are closer to satellite-framed languages. It also argues that this language and its dialectal variations are an interesting case in point as far as deictic patterns are concerned since Western and Eastern varieties employ different deictic strategies. This leads to a further interesting question about the role of dialectal variation in motion typology that we explore in the third study. Here, we investigate how speakers of the Spanish variety of Aragón describe motion events. There do not seem to be strong significant differences with what has been previously described for Spanish; however, some peculiarities are found with respect to the quantity of detailed information about Path as well as to the type of Manner lexical resources.

In sum, in this study, Talmy's (1991, 2000) typological classification on the encoding of motion and Slobin's (1996, 2004) methodology for Thinking for Speaking are applied to the study of minority languages and dialectal varieties. This interdisciplinary approach benefits both linguistic fields. First, it brings new data to challenge the typological classification and raises awareness of intra-typological differences in the encoding of motion. Second, it offers new resources in the field of dialectology and language contact, especially in the Hispanic tradition, with an innovative data collection and highlighting specificities of languages and varieties in basic semantic domains. In other words, sharing interests and methods is a way of "moving forward" in both linguistic disciplines

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A Cognitive Semantic Analysis of Pointing in Co-speech Gesture and Sign

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Pointing has been the focus of attention among gesture researchers, signed language linguists, and psychologists for decades (Cormier, Schembri, & Woll, 2013; Desrochers, Morissette, & Ricard, 1995; Enfield, Kita, & De Ruiter, 2007). Despite pointing being a research interest across a variety of disciplines, a comprehensive view and unified understanding of pointing has yet to emerge, especially for *pointing gestures* co-occurring with speech and *pointing signs* used in signed language. A problem for understanding any possible relationships between pointing gestures and pointing signs arises because researchers in these two fields typically analyze their data using incommensurable frameworks. Gesture researchers typically categorize gestures into broad functional types based upon general discursive functions, such as description, reference (Kendon, 2004) and depiction (McNeill, 1992). Rarely do gesture researchers examine detailed phonological and semantic structures of gestures, and thus a rigorous study of symbolization is almost entirely missing.

Sign researchers have relied on formalist theories (Lillo-Martin & Meier, 2011) as well as functional models (Engberg-Pedersen, 1993) to describe pointing signs. Even here, however, a fine-grained semantic analysis of pointing across contexts of use is rarely performed. While phonological aspects of pointing signs are discussed, the assumptions are often based in structuralist or generative theories (Eccarius & Brentari, 2010). One proposal that has recently emerged in the sign linguistics literature is that pointing signs are fusions of linguistic and gestural elements (Cormier et al., 2013; Liddell 2000).

Our paper adopts a cognitive semantics framework, particularly drawing on tools from cognitive grammar (Langacker 2008), to analyze co-speech pointing gestures used in English and pointing signs from several signed languages. Specifically, we focus on the functions these two types of expressions serve across different types of constructions. We find that while there are some overlaps in function across pointing gestures and pointing signs, a fine-grained phonological and semantic (form and function) analysis reveals significant differences as well.

For example, we find that an analysis of pronominal-antecedent constructions in certain signed languages reveals a symbolic structure that we call a “proxy antecedent” consisting of a specific phonological structure (a specific location in signing space) and a highly schematic semantic structure that is limited to making reference to an actual antecedent nominal. A pronominal reference to this proxy antecedent manifests as a pointing sign, whose semantic pole makes schematic reference to and is elaborated by an antecedent by way of the proxy antecedent, and whose phonological pole includes a schematic element, a location, which is elaborated by the phonological pole of the proxy antecedent. While we find somewhat similar constructions in co-speech gesture, the gestural elements do not display the same level of grammatical complexity as do the elements of the sign construction.

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Why am I an idiot when the law is on my side?: A study of crises, public opinion and frames

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It is a well-known fact that organisations do not operate in a social vacuum, but need to consider the interaction between a number of social actors and stakeholders in the discursive construction of their image (Gunnarsson 2009), and with the arrival of social media platforms, the public is one of the groups to gain power by producing frames that may significantly impact on the image and public standing of organisations (Van der Meer & Verhoeven 2013).

During crisis, it is crucial that organisations acknowledge this development. As means of instant mass self-communication, social-media platforms may allow public views to rapidly develop into coherent frames that not only precede the frames produced by the established media, but also introduce different attributes that allow a situation to develop into crisis (Liu et al. 2011). Thus, public frames may e.g. assign blame and responsibility for actions on the basis of fragmented and emotional knowledge potentially inflicting much damage to organisational image within a relatively short time frame (Liu et al. 2011).

In the paper, the dynamics of public frames will be revealed through the analysis of the crisis experienced by the Danish restaurant chain, Jensen's Bøfhus (Jensen's Steakhouse), in September 2014. The analysis demonstrates that public frames are instantly established on social media platforms when announcements are made of corporate actions that challenge common notions of what is deemed fair and just. Thus, a Supreme Court ruling granting trademark rights to the restaurant chain violated the public sense of right and wrong, even though the ruling was considered unequivocal within the Danish legal system, and led to the construction of frames that sent the restaurant into a full-scale image crisis.

The theoretical and methodological foundation of the analysis is framing (Fillmore 1982; Hallahan 1999), which provides the analyst with tools for investigating the conceptual and rhetorical/linguistic levels of communication between e.g. organisations and outside groups. Being concerned with the cognitive information processing of the receivers of text, framing can be instantiated through a number of lexical items, including metaphor (e.g. Lakoff and Johnson [1980]2003; Kövecses 2006), as well as be implicit or explicit (Hellsten et al. 2010). Thus, the paper will be concerned with the ways metaphor interacts with other lexical items in the frames to promote particular problem definitions and moral obligations. The data for the analysis consist of posts on Facebook and Twitter as well as articles from Danish online and print media in the first two weeks following the announcement of the Supreme Court ruling.

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Hunting for polar questions in the Taiga

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Kiefer's (1980: 105) maxim "Don't ask a wh-question if you can ask a yes-no question!" has been empirically proven correct for several languages in 2010 (see the special issue of the *Journal of Pragmatics* 42): Content questions were found to be overwhelmingly more frequent than polar questions in most languages investigated. Nevertheless, there was a Khoisan language from southern **Africa**, #Äkhoe Haillom, which showed the opposite picture (Hoymann 2010). Similar results have also been found for an **Australian** language (Gardner 2010). While these two cases are enough to show the language or culture specific nature of Kiefer's claim, there is still the question as to **why** these two languages differ so drastically from the rest. A rather compelling argument was put forward by Hoymann (2010: 2736f.), who claims that the phenomenon could be explained by a similar background of egalitarian **hunter-gatherer** societies, which prefer to ask questions in a "less coercive and less restrictive" way. In order to check this hypothesis the talk addresses yet another language spoken by a people with a comparable cultural background. Indeed, the first results indicate an even stronger tendency in the same direction in data taken from the Tungusic language of the **Udihe** (cf. Nikolaeva & Tolskaya 2001, Ji Yuesheng 2012). Given the scarcity of data from spoken discourse, corpora of previously published folklore texts will be investigated instead (e.g., Nikolaeva, Perekhval'skaya & Tolskaya 2002, Tsumagari 2011). This empirical approach will be combined with theoretical considerations concerning the cultural background of the Udihe, who used to be seminomadic hunters and fishers living along the rivers flowing through the forests of the Russian Far East (e.g., Plath 1830, Friedrich 1956, Sasaki 2011). This not only offers the possibility for a typological comparison and speculations about the relationship of **culture and cognition** (e.g., Henrich, Heine & Norenzayan 2010), but also shows a stark contrast with the two adjacent languages Japanese (Hayashi 2010) and Korean (Yoon 2010), which are among those languages showing the strongest tendency to follow Kiefer's maxim. Other Tungusic languages such as Manchu, Uilta or Evenki, which were influenced by more sedentary cultures to different degrees and different time spans may be used to control the results.

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Conceptualization of TIME in Two Formosan Languages

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This study sets out to investigate the conceptualization of TIME in Kavalan and Saisiyat, two Austronesian languages spoken in 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). Nevertheless, the metaphoric mapping between SPACE and TIME in Kavalan and Saisiyat is limited in many ways; they are less likely to use spatial concepts when talking about TIME. And even when they do use metaphors to talk about TIME, the type of metaphoric expressions is far less diverse and less elaborate than that in English and many European languages. In addition, our data show that of all the six dimensions reflected in spatial expressions of TIME (cf. Radden 2003), the mapping in SHAPE, DIMENSIONALITY, POSITIONALITY and MOTION is rare, if not absent at all, in these two Formosan languages.

Two factors play a significant role here. First, these two Formosan languages do not have generic nouns 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. Furthermore, that these two languages do not have the grammatical category of prepositions might have been another linguistic characteristic making the mapping in DIMENSIONALITY dispreferable. Second, the cultural practices in these languages 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, e.g. the Saisiyat *ka-ba:i-an* ‘NMLZ-give-NMLZ’ ‘tax season; tax day’ denoting the season one has to give money to the government derived from the activity verb *ba:i* ‘to give’. Nevertheless, we do not claim that SPACE and TIME are disconnected in Formosan languages; we are proposing that TIME in the languages is construed as the construction of events/activities where people move around in their daily lives.

The findings of this study may contribute theoretically to a better understanding of TIME-SPACE metaphoric mapping relations in these two Formosan languages and may also contribute to a clearer picture of the emergence of semantic meanings of TIME from a cross-linguistic perspective.

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Effects of interlingual homographs during lexical access in Chinese-Japanese bilinguals

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Non-selective access is widely accepted in previous studies about bilingual language processing, that is, features from different languages might be simultaneously activated during comprehension of words, even though in first language (L1) comprehension (Van Assche, et al., 2009). For instance, reaction time might be slower to interlingual homographs than exclusively language matched controls due to competition of meanings (Dijkstra et al., 2000). Alphabetic writing systems are mainly used to discuss bilingual language processing (i.e. Dijkstra et al., 2010), but logographic writing systems are seldom discussed in this issue. This study focuses on non-selective access with logographic writing system, suggesting that meanings from Japanese Kanji (L2) might influence ones from Traditional Chinese words (L1) in Chinese-Japanese bilingual.

The lexical decision test contains 340 words, which are divided into 5 types: pseudowords (PW) which do not exist in either Chinese or Japanese but follow orthographic rules from the writing systems of both languages, interlingual homographs (IH) with the identical forms but different meanings between Chinese and Japanese, cognates (CO), whose forms and meanings are identical in both languages, and language specific words existing in either only Chinese (CS) or Japanese (JS). We selected real words from ChineseTaiwanWac and JpWac corpus. In order to ensure that participants could understand each stimulus in the experiment, we invited both Chinese and Japanese monolinguals not participating in the lexical decision test to do a familiarity test with 7 scales, and words with means higher than 4 were selected as experimental stimuli. Furthermore, we controlled strokes across each condition (means = 18) in order not to make participants confused during word recognition. Both Taiwanese bilinguals and Japanese monolinguals were invited to the lexical decision test, and were required to determine whether words on screen belong to their mother tongues or not.

For the parts of meaning access (IH, CO, and CS), significant differences can be found in Taiwanese bilinguals through one way ANOVA ($F = 6.529$, $p < .05$); significant differences of IH could be observed in comparison with CO ($p < .05$) and CS ($p < .05$), but there is no significant difference between CO and CS ($p = 0.991$), suggesting that Taiwanese bilinguals might undergo the competition of meaning when facing IH, even though in the L1 condition. In the other parts of meaning access (IH, CO, and JS), this tendency could not be observed from Japanese monolinguals ($F = 0.345$, $p = 0.711$). Thus, meanings from two languages might be activated at the same time in bilingual language processing, further leading to competition if word meanings differ in two languages, even though in L1 comprehension and logographic writing system.

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From resultancy to discourse: so as a pre-sentential discourse marker

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The lexeme *so* as a discourse marker, when it is used at the beginning of a sentence (e.g. *So, that is what you meant!*), seems to have generated a considerable amount of interest in the literature. Previous writers have identified a number of functions for the word, such as “doing other attentiveness” (Bolden 2006), “launching conversation business” (Bolden 2008, 2009), managing topics in a conversation (Howe 1991), or leading into a question (Johnson 2002).

In this presentation, we study *so* from a cognitive linguistics perspective, arguing that the multitude of functions that have been ascribed to the lexeme are not a random combination of unrelated things. Rather, these functions are natural results of a process of metaphorical extension from the resultancy semantics of the word. Specifically, we demonstrate that the core meaning of *so* has made a leap from the realm of logic to the world of discourse. Consider the following example, from an interview of Michael Zuckerberg, the founder and CEO of Facebook (Arrington 2010):

Interviewer: Ok. So let's talk about how you see, what is Facebook's role in the mobile world over the long run?

Zuckerberg: So I guess, we view it primarily as a platform.

The interviewer's *so* marks the change of topic. But the fact that *so* is used instead of another discourse marker such as *and* indicates that the semantics of *so* must have something to do with its use. That “something,” we argue, is the semantics of resultancy: EVENT X RESULTING IN (LEADING TO) EVENT Y. What the interviewer seems to be saying is “Since we have finished the prior topic (EVENT X), we can move to the next one (EVENT Y).” In other words, although there is no connection between the *propositions* of utterances, as what the notion of RESULTANCY might ordinarily entail (e.g. “I had a foot-long sandwich. So I am not hungry”), there is a clear connection of the same kind between finishing one topic and starting another topic in the interview discourse context. The use of *so* by Zuckerberg can be analyzed in similar ways.

In addition to offering a more elegant proposal to the use of *so* as a discourse maker than what is found in the literature, our presentation suggests that source domains of metaphors do not have to be always bodily, assessable only to the senses. Pervasive notions in the mind may also serve as source domains, generating cognitive possibilities for understanding the world around us.

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**Good, Great or Excellent? Method Can Tell About Theory.
-- a case study of Chinese analytic causatives**

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As Cognitive Linguistics embraces an increasing number of usage-based, corpus-related bottom-up quantitative studies nowadays, it steps out of the introspective zone and drives up a two-way highway, which includes both theory making and theory testing. With the current case study, we address, other than the crucial contribution that this established methodology makes to Cognitive Linguistics – hypothesis testing (i.e. hypothesis validating and falsifying), another offer, namely theory grading and selecting.

Our study investigate two hypotheses about Chinese analytic causatives, the (in)direct causation hypothesis and the (im)purity hypothesis. The former is first formulated by Verhagen & Kemmer (1997) to distinguish between Dutch causatives *doen* and *laten*, analyzed then by Stukker (2005), and falsified by Speelman & Geeraerts (2009), but re-used by Ni (2012) as an important distinction to differentiate two Chinese analytic causative auxiliary verbs *shǐ* and *ràng*. This hypothesis states that the choice for either *doen* (*shǐ*) or *laten* (*ràng*) is influenced by the degree of involvement of the causee. It focuses on the conceptual difference whether there is intervening energy source “downstream” or not so that the causer produces the effected event (in)directly. The latter relates to Terasawa’s (1985) categorization of English causative *make* (Cause-type/pure causative and Force-type/agentive causative). It implies that the semantic concept of (im)purity and its pertinent classification may be an important dimension to causative auxiliaries in Chinese. So based on a same dataset, retrieved from the UCLA Chinese Corpus (Tao & Xiao 2012), we derive a series of predictions from the two hypotheses and obtain the predictors accordingly to annotate the 2,818 occurrences. And we apply logistic regression analysis to fit two models, and compare these models.

It is possible for us to say which hypothesis does a better job of describing the (dis)similarities between *shǐ* and *ràng*, by looking at the prediction accuracy, predictor significance and effect size, and going deeper to the estimates of each and every specific predictor level to see 1) how these two causatives are correlated with (in)direct causation and (im)purity type, 2) which predictor(s) are more powerful in the respective models so that they can be the major concern that one would have when the hypotheses are considered, and 3) how much variation in the actual language use has been explained by each of them, and whether what has been left out is important enough that it dwarfs the hypothesis as a solid theory.

Our analysis so far shows that the (in)direct causation hypothesis is not as important for Chinese analytic causatives as Ni (2012) suggests. It fails for most of the time to tell apart *shǐ* and *ràng* since less than 30% data can be covered by it. Comparatively, the concept of (im)purity is a fair viewpoint to treat the causatives.

It cannot be denied that fully worked theory in usage-based Cognitive Linguistics (Barlow & Kemmer 2000) is based upon observations of linguistic construal of the world and is meant to interpret language reality. Therefore it is supposed to have a legitimate part to itself. However, the language varies so widely that no single overall theory can account for all the nuances. So when we need more theories to fully understand a linguistic phenomenon, we encounter the matter of theory grading and selecting. In order to diagnose which one is poor, good or more refined, there is no way around but putting method to use.

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Beyond (In)directness: A Multivariate Model of Causation for Chinese Causatives

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This study attempts to propose a multivariate model of causation to explain seven Chinese analytic causatives *shǐ*, *lǐng*, *ràng*, *jiào1*, *jiào2*, *gěi* and *yào* after examining whether or not the (in)direct causation hypothesis, which is formulated first by Verhagen and Kemmer (1997) on Dutch causatives *doen* and *laten*, analyzed by Stukker (2005), falsified, mostly if not completely, by Speelman and Geeraerts (2009) works for these near-synonyms in Chinese.

Starting with the assumption put forward by Ni (2012) that in Chinese *shǐ* expresses direct causation like *doen* and *ràng* expresses indirect causation like *laten*, I retrieve my data from the UCLA Chinese Corpus (Tao and Xiao 2007), and annotate them with the predictors assumed in the literature to address the following questions: 1) Do the factors related to (in)direct causation hypothesis play a role in distinguishing Chinese analytic causatives? 2) If they do, how significant are they? 3) Is the distinction of (in)directness an adequate reason for language users to choose one auxiliary over the others? 4) Is there possibility that Chinese is another case, which does not settle for this hypothesis but instead confirms the multivariate conception of grammar suggested by Speelman and Geeraerts?

I implement both exploratory and confirmatory statistical techniques (e.g. multinomial logistic regression analysis) to gauge the effect of different predictors on the use of causatives and to diagnose the models I build.

The statistic shows (in)direct causation hypothesis is not unimportant to Chinese analytic causatives but it is far from powerful enough to capture all the significant variation. It is rather a minor taxonomy since only about 30% data has been explained by the (in)direct causation only model. There are plenty of other factors beyond (in)directness which simultaneously draw the entire picture of Chinese causatives, such as lexical fixation. The conclusion does point to the multivariate model of causation, and more broadly, architecture of linguistic system in which structural, discursive and variational factors join together to determine the presence or absence of linguistic variants.

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Motion Events and Time in Mandarin Chinese—the Case of *Guo*

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Mandarin Chinese has no morphological tenses. The studies of time in Mandarin Chinese have mainly focused on its very limited number of aspect markers and various complements. *Guo*, as an aspect marker indicating viewpoint on a situation and a phase complement (Chao 1968) indicating aktionsart, i.e., intrinsic temporal qualities of a situation (Brinton 1988), has proven to be one of the most mysterious linguistic phenomena in Mandarin Chinese due to its polysemy and the subtle distinctions between aspect and aktionsart. In the literature, *guo*, as an aspect marker, suggests the occurrence of at least one instance of a class of events and is highly polysemous, contributing but not limited to the distinct senses of experientiality, discontinuity, repeatability, recurrence, reversibility and indefiniteness (e.g. Chao 1968; Li & Thompson 1981; Iljic 1990, 2009; Smith 1997, 2005; Pan & Lee 2004; Lin 2007; Chen 2009; Li 2011); *guo*, as a phase complement, indicates the occurrence of a determined event, comparable to a past event (Iljic 2009). The following examples from Chao (1968, pp. 251-252) illustrate the use of *guo* as an aspect marker and a phase complement respectively.

1. A: Ni chi-guo yuchi meiyou? B: Chi-guo
 You eat-guo fish-fin not-have? Eat-guo
 ‘Have you (ever) eaten shark’s fin?’ ‘Yes, I have.’
2. A: Ni chi-guo le yuchi meiyou? B: Chi le / Chi-guo le
 You eat-guo le fish-fin not-have? Eat le / Eat-guo le
 ‘Have you eaten the shark’s fin? (Are you ‘Yes, I have.’
 ready for the next course?)’

No satisfying, unified account regarding the semantics of *guo* has been offered. Previous studies have used *guo*’s use as an aspect marker as its central sense. This paper argues this is a faulty starting point. Using the methodology of principled polysemy (Tyler & Evans 2003) and a usage-based approach, i.e. explaining *guo*’s complex semantics from embodied experience and social usage events, this paper argues for a primary sense for *guo* which stems from its oldest attested meaning, a physical-spatial motion event, ‘to walk across’. The analysis provides a motivated semantic network with fourteen distinct senses for *guo*, *emphasizing* how the various meanings are systematically extended from physical-spatial motion event to non-spatial domains. For instance, *guo* in sentence *Ta guo lai le* (*He walked over*) presents *guo*’s primary sense, i.e., the trajector (TR) crosses certain landmark (LM) in the manner of walking. However, *guo* in sentence *Zanmen ba gaozi zai guo yibian* (*Let’s go over the draft once again*) describes a mental activity, i.e., the TR, *we*, mentally goes through the LM, *draft*. Moreover, *guo* in the sentence *Zenme guo hanjia* (*How to spend the winter break*) takes on the meaning of “spending/passing (time)” when the LM is a period of time, *winter break*. The principled polysemy analysis of *guo* is able to explain how the various meanings of *guo* as a verb were extended, and is also able to show how *guo* was extended from a verb to a phase complement as well as to an aspect marker. By attending to the earliest attested meaning, embodied experience and the notion that meaning extends from the physical spatial to the more abstract, the analysis elucidates the *guo*’s grammaticalization paths (Bybee 1994) and the motivated mechanisms that promote the various extensions.

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Communicating and Cooperating with Cancer Patients -- Where Cognitive Science Meets Narrative Medicine

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In healthcare services, one of the widely acknowledged challenges faced by practitioners is the achievement of a successful clinical relationship with healthcare clients. A successful clinical relationship essentially requires the practitioner's capacity to attribute a series of intricate mental states to a patient, and to use this knowledge to construct effective ways to work with the patient toward the best outcome.

This paper intends to investigate how practitioners -- when working with cancer patients -- observe, understand and evaluate the patients' mental states, and how such perceptions help the practitioners as well as the patients to build mutually beneficial clinical relationships.

The linguistic data examined in this paper is a collection of self-reflective narratives written by nurse practitioners in an oncology clinic. Each narrative has recorded a practitioner's clinical encounter with a patient (and the patient's carers / families where appropriate) during his / her treatment. All narratives -- although different in details -- have documented the developmental process of clinical relationships between patients and practitioners.

The analysis of the data is guided by theoretical frameworks in two academic traditions -- one in social cognitive science (Moskowitz 2005) and the other in narrative medicine (Charon 2006). Cognitive science argues for a neuropsychological basis for the construction of mental states, which are built upon an embodied and grounded cognition (Barsalou 2010). The understanding of one and other's mental states can facilitate social interactions between participants (e.g. the development of clinical relationships between patients and practitioners in this study). The other theoretical framework adopted in this paper -- narrative medicine -- maintains that medical professionals need to have narrative competence, i.e. the ability to acknowledge, absorb, interpret and act upon patients' stories and experiences (Charon 2006), which is another essential element for patient-practitioner relationships.

Taking into account these two frameworks, this paper presents an analysis of 19 aforementioned narratives by nurse practitioners. Particular attention is paid to the examination of how the practitioners employed a series of embodied, multi-modal, and social-cognitive strategies (Barresi and Moore 1996) to encourage, invite and support cancer patients to participate in a number of joint-actions. These joint-actions, e.g. better patient adherence to clinical treatment and a greater engagement in conversation about patients' plights and illness, helped to achieve certain joint-goals, e.g. better health outcome, and ways to live with cancer. The analytical results suggest that when a practitioner is able to understand and act upon a patient's mental states, and when such action is considered reciprocal by the patient, a mutually beneficial patient-practitioner relationship is likely to be established. Another finding of the paper is that the practitioner's narrative competence (as argued in narrative medicine) can facilitate a more embodied and holistic understanding of the patient's mental states, hence contributing to the achievement of a more successful clinical relationship.

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“Existential cores” in Cognitive Grammar: theoretical basis, method of representation, and cross-linguistic applicability

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In his account of English finite clauses, Langacker (2009: 246) applies the notion of “existential cores” (EC) to “functional groupings” including the subject, the existential verb (i.e. the finite verb or auxiliary), and indications of polarity and illocutionary force. The EC gives a “schematic representation of the clause as a whole” (2009: 250), and has clear structural significance, as demonstrated by the distribution of epistemic parentheticals (1), and the use of tag questions and corresponding minimal answers (2). In the examples below, “basic” or prototypical instances of the EC are underlined.

- (1) a) You will, I think, be pleased with the results.
b) Are they, perhaps, less trustworthy than we thought?
(2) A: The president shouldn't be lying to us, should he? B: No, he shouldn't.

The main goal of the presentation is to reflect on the implications of this new notion for standard assumptions in Cognitive Grammar, with special regard to the theory of constituency (and to a lesser degree, profile determinance). In particular, it will be argued that the EC strongly favours a dependency-based method of representing symbolic structures, and thus an even more radical break with classical constituency than proposed e.g. by Langacker (1999: 147–170). Secondly, it will be shown that the EC has cross-linguistic applicability, with a number of properties shared by EC's in English and Hungarian.

The first part of the talk will demonstrate that while the EC cannot be easily regarded as a constituent (“component structure”), it straightforwardly qualifies as a unit of dependency grammar called “catena” by Osborne and Groß (2012). A catena is a word, or a combination of words which is continuous with respect to dominance. Empirical support for the concept comes from a range of phenomena including idioms, ellipsis and predicate structure. For example, in *John has been helping us*, and *Mary them*, the elided analytic predicate is a catena even though it is not a constituent.

Once the EC has been captured as a catena, and thus as a legitimate grammatical unit, the further question can also be posed if it may be regarded as profile determinant. Since the EC gives a “schematic representation of the clause as a whole” (Langacker 2009: 250), this approach seems plausible enough, even though it amounts to a significant departure from earlier proposals formulated in Cognitive Grammar.

Hungarian is a “pro-drop” language, with the person and number of the subject coded schematically by the verb. Therefore, the Hungarian EC can be a single word as well (which still satisfies the definition of catenae). A detailed comparison of (basic) EC's in the two languages reveals the following shared properties: 1) EC's include the finite verb or auxiliary, and indications of the person and number of the subject as well as polarity and illocutionary force, 2) they can function as minimal answers in reply to yes-no questions, 3) they are the domain in which inversion occurs in certain clause types, 4) they are catenae in terms of dependency grammar. The research invites further typological work on the cross-linguistic applicability of the notion, with the collection and ranking of possible criteria.

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Agrammatism, working memory and the lexicon-grammar distinction

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This paper proposes an understanding of agrammatism, which takes into account recent advances in both aphasiology and linguistics. Agrammatism is defined as impaired ability to produce grammatical elements, and typically occurs in Broca's aphasia. Individuals with agrammatism are described as having effortful and simplified, "telegraphic" speech (Goodglass 1976). A number of recent theories converge on associating agrammatism with processing deficits, which may be the result of a general impairment in the working memory system (e.g. Kolk 1995; Avrutin 2006; Bastiaanse et al. 2011). From the point of view of linguistics, the possible link between agrammatism and working memory deficits presents a theoretical problem: based on traditional accounts of the grammar-lexicon distinction, it does not follow that grammatical elements would be affected more severely by working memory deficits than lexical ones. For instance, this follows neither from Generative Grammar's understanding of grammar as entirely distinct from lexicon and governed by principles and parameters, nor from purely functional distinctions advocated by for instance Traugott (2003: 645).

In the present paper, we offer a solution to this problem based on Boye & Harder's (2012) usage-based theory of grammatical status and grammaticalization. The central idea in this theory is that grammatical elements are by convention discursively secondary (background), while lexical ones have the potential of being primary (foreground). The account we propose is as follows: 1) Working memory deficits severely affect language production in general. 2) Individuals suffering from production problems concentrate their efforts on communicating their major points. 3) Accordingly, they concentrate their efforts on producing lexical elements – at the cost of grammatical elements.

Our account puts people suffering from agrammatism on an equal footing with other people that have production problems, e.g. people sending telegrams or text messages under (possibly self-imposed) time or space pressure. The paper is structured like this: We first review the literature which tries to establish a connection between working memory deficits and aphasia in general, pointing out a number of reasons why no clear picture has so far been established. We then argue that specifically in the subfield of agrammatism a number of processing theories converge on giving an account in terms of working memory deficits. Subsequently, we present our theoretical account outlined above, and give a summary of supportive evidence from recent psycho- and neurolinguistic studies.

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Savings paradigm and pervasive childhood language loss in an adoptee

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The loss of childhood language in adoptees has attracted scholars' attention in the past. A search for memory traces, known as savings, provided conflicting results. The studies by Pallier et al. (2003) and Ventureyra et al. (2004) showing no savings effect in adoptees were challenged by Bowers et al. (2009) and Hyltenstam et al. (2009). The latter suggested that a repetitive re-exposure to the lost language is necessary to boost accessibility. The savings effect is further explored through the savings paradigm originally employed by de Bot and Stoessel's (2000). The present study adopted, expanded and re-conceptualized the savings technique to demonstrate how it can be used in complex cases of pervasive language loss. It attempted to find remnants of a lost childhood language in a 33 year old adoptee who did not know her linguistic background prior to her adoption at the age of three and who recovered some word forms with no meaning in the childhood language while going through psychotherapy. Pre-tests identified Russian or Ukrainian as possible target languages, the two share much lexicon. The study involved relearning the "old" (supposedly known by a three year old child and selected from Macarthur-Bates Communicative Development Inventories database) and "new" Russian/ Ukrainian cognates within the savings paradigm framework. Altogether, 70 words were used in the entirety of the case study (six successive sessions over a period of two months), and were either nouns or verbs. Twelve native English-speaking female undergraduates (age M = 20;8) served as the control sample. The formal savings paradigm task, administered to both the control sample and the case study, consisted of 46 words, which were divided into "old" (n=25) and "new" (n=21) words. The savings paradigm technique was administered in three successive sessions. The procedure for the control group mirrored that of the case study. Following the recent findings on the saving effect the paradigm was expanded: more emphasis was placed on a repetitive re-exposure to the language and delayed post tests (recall and recognition). All words were either recalled or recognized in immediate post-tests. Delayed post-tests conducted exactly a week after the learning session provided evidence of the savings effect in recall across all sessions for the case study participant. Delayed recall and recognition testing using monolingual English-speaking participants, however, show that performance on "old" words either did not differ from, or was significantly lower than, performance on "new" words, thus suggesting that "old" words were not inherently easier to learn. In combination with the additional evidence gathered through pre-tests in the case study it was suggested that indeed the lost language could either be Russian or Ukrainian. Being aware of all the limitations that our case study presents and having added the control group to the design (the latter is not used in "savings paradigm" studies), we hope that our findings further reinforce a need in the use of behavioral measures, such as the "savings paradigm", to study the cases of pervasive language loss in adoptees.

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A corpus study of change-of-state expressions in English from the viewpoint of Talmy's typology

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Talmy's typological studies on motion expressions are one of the most influential works on semantic typology. Although his framework has been extended to include other types of events such as change-of-state events (Talmy 1991, 2000), there are few studies concerning such events. This study investigates change-of-state expressions using data from the British National Corpus (BNC), and examines the validity of Talmy's typology in the change-of-state expressions in English.

According to Talmy (1991, 2000), path in motion events and change-of-state in change-of-state events are called the "core-schema," and he divides languages into two types depending on which constituent encodes the core-schema. This presupposes that a language chooses a single encoding pattern for event descriptions. Consequently, the motion expressions and change-of-state expressions follow the same encoding pattern (in the case of English, satellites-framed). However, as Talmy noted (2000:240–241), both satellite- and verb-framed patterns are available in English for encoding a change-of-state event together with a co-event (e.g., *John kicked the door shut* and *John shut the door with a kick*), even though English has been said to be a satellite-framed language. It is therefore necessary to investigate into the preference of the patterns in the change-of-state expressions in English.

From the corpus data, this study demonstrates that English prefers the satellite-framed pattern in the change-of-state expressions as well. In order to see the preference, the BNC was searched for the expressions describing a change-of-state event by satellites and those by the main verb. In the case of the event 'open', for instance, sentences like (1) were retrieved from the BNC.

- (1) a. Without knocking, she pushed the door open and went in. (BNC-CD2; satellite-framed)
b. [...] please always open the binder by pulling the two triggers at either end. (BNC-K6V; verb-framed)

The frequency of each pattern shows that the satellite-framed pattern is frequently used in the BNC while the verb-framed pattern is rarely used. This indicates that the satellite-framed pattern is strongly preferred in the change-of-state expressions in English.

This study also points out that there is a difference between the motion expressions and the change-of-state expressions; when co-events (e.g., means of change-of-state) are not expressed, the main verb rather than satellites describes change-of-state in English, and such non-integrated expressions are more frequently used than integrated ones. For example, sentences in which co-events are not expressed like *I opened the door* appear more frequently than ones like *I pushed the door open*. This dominance of the non-integrated expressions makes a sharp contrast with caused-motion expressions where path, which corresponds to the change-of-state, is much more frequently coded in satellites together with the main verb, possibly due to the lack of caused motion verbs denoting path (Matsumoto 1997). In addition, the fact that change-of-state events are described by the non-integrated expressions shows that Talmy's typology is applicable to the limited range in the domain of change-of-state events.

To sum, English prefers the satellite-framed pattern for describing the change-of-state events when a change-of-state event and a co-event are integrated into a single sentence as Talmy predicted. We also reveal that the integrated expressions are rarely employed in the change-of-state expressions, whose status must be investigated in Talmy's typology.

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Corpus

The British National Corpus, version 3 (BNC XML Edition). 2007. Distributed by Oxford University Computing Services on behalf of the BNC Consortium. URL: <http://www.natcorp.ox.ac.uk/>

Explicit marking of factive/fictive change participants: An account of alternations between the accusative and other oblique cases in Korean and Japanese

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This paper examines apparent alternations of the accusative and other oblique cases in Korean by occasional comparison with Japanese, typologically close but different in some linguistic behavior. It demonstrates that the Korean accusative, in such alternations, serves as an explicit marking of the objects whose referents are viewed as being constitutive of the “fictive” as well as “factive” change (Talmy 2000) denoted in the verb, as illustrated in (1). It also reveals that the Japanese accusative, in comparable alternations exemplified in (2), hints more at the subject’s than the object’s referent being constitutive of such a change and that the subject referent’s approach to the object referent tends more to be encoded in the dative than the accusative.

In (1a), the bus is conceived of as part of the “factive” change involved in the transfer ‘the subject referent’s going (riding) to the station’; therefore, the object NP is more natural with the accusative than with the locative. In (1b), the bus is envisioned as a location in which the subject’s referent is situated (while riding); hence the compatibility with the locative, not the accusative.

- (1) a. *yeog-ggaji beoseu-reul[?]e] ta-go ga-ss-dae.*
station-until bus-ACC[LOC] ride-and go-PAST-EVD
‘(He) rode a bus to the station.’ KOREAN
- b. *yeog-ggaji beoseu-e[?]reul] ta-go isseo-ss-dae.*
station-until bus-LOC[ACC] ride-and be-PAST-EVD
‘(He) rode a bus to the station.’

Even with the accusative, however, (1b) is more natural in a certain context: the speaker did not expect ‘him’ to ride a bus or expected him to use another means of transportation, say taxi or bicycle. In such a context, the conception of ‘his going to the station’ is present in the relevant event conceptualization, but that of bus is not; the bus conception appears in the conceptualization. The conceptual appearance of such an unexpected or contrasted entity can be viewed as a “fictive” rather than “factive” change. As is generally assumed, the Korean accusative prototypically marks an event participant constitutive of a factive change, but the data leads us to the conclusion that it has been extended to the marking of a participant constitutive of a fictive change in alternations with other oblique cases.

In Japanese sentences corresponding to (1a-b), the NP for ‘bus’ is not marked with the accusative but the dative, as shown in (2a). However, the accusative can be more acceptable in contexts where the subject entity (‘he’) is interpreted as undergoing some physical or mental change, as instantiated in (2b). That is, riding a bus is normally seen as the subject referent’s approach to the object referent marked with the dative, but it can be viewed as the subject’s referent being constitutive of some change along with the accusative-marked object. This interpretive contrast can be observed in (2c) as well. The dative profiles the subject entity’s (‘she’) reaction to the referent of the object (‘marriage’), in which the object rather than subject entity is susceptible to change. The accusative focuses more on the subject entity’s juggling the object referent’s image in her mind. As these examples suggest, the Japanese accusative mostly marks a participant constitutive of a change but in alternations with the dative likely implies that the subject entity is constitutive of a change.

- (2) a. *eki-made basu-ni[?]o] not-te it/i-ta-ndatte.*
station-until bus-DAT[ACC] ride-and go/be-PAST-EVD
‘(He) rode a bus to the station.’ JAPANESE
- b. *nagai koto basu-ni^(?)o] not-te-i-te yot[kidui/wakat]-ta-ndatte.*
long thing bus-DAT[ACC] ride-and-be-and feel.sick[notice/find]-PAST-EVD
‘(He) felt sick [noticed/found (it)] while riding a bus for a long time.’
- c. *kanozyo-wa kare-to-no kekkon-ni[?]o] mayot-tei-ta.*
she-TOP he-with-GEN marriage-DAT/ACC waver-PROG-PAST
‘She was hesitating to marry him.’

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Reconsidering expressions of the English future: Embodied experience, invited inferences, and inter-lexical polysemy in *will* versus *be going to*

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English speakers expressing futurity have the choice of two primary verb constructions, *will* or *be going to* (*BGT*). Previous studies establish that while both express a general sense of future, they also vary in subtle ways. *BGT* has a range of future meanings, such as Prior Intention and Inevitability, not associated with *will*. In contrast, *will* has a volitional future not expressed by *BGT*. Langacker (1987) rejected a metaphoric analysis of *BGT* (TIME IS MOTION) as inadequate to explain its multiple meanings. Brisard (2001) expanded on this analysis and argued that manipulating binary feature configurations can account for the semantic differences between *will* and *BGT*. He argues that both have a –Ground feature (i.e. not-yet-realized), however, *BGT* has a +Present (i.e. access to confirmatory information) designation, while *will* has a –Present designation. However, a corpus analysis (COCA) shows that *will*, *BGT* and simple present tense are all used to talk about not-yet-realized scheduled events and would all seem to rely on the same type of confirmatory information in such uses. Consider, for instance:

According to the paper, the Nationals will play at 1:15 this afternoon.
According to the paper, the Nationals are going to play at 1:15 this afternoon.
According to the paper, the Nationals play at 1:15 this afternoon.

Brisard's binary feature analysis fails to account for this semantic overlap among *will*, *BGT*, and the simple present. Moreover, it does not provide a framework that treats *will* and *BGT* as part of the larger English modal verb system. Finally, it lacks a persuasive explanation concerning how the various meanings associated with *will* versus *BGT* arose. We address these gaps by proposing a Principled Polysemy (Tyler & Evans, 2003) explanation for *will* and *BGT*'s meanings, which emphasizes that the meanings of *will* and *BGT* reflect embodied human experience. The analysis establishes that the earliest attested meaning for *go* can be traced back to the Old Germanic [ga], which meant 'walk'. Although the original meaning of 'walk' has been almost completely bleached from current English usage, vestiges remain. Using a grammaticalization account (Bybee et al., 1994; Traugott & Dasher, 2002), all the meanings of *BGT* are related straight forwardly to invited inferences inherent in the conceptualization of the human walk cycle. The analysis also allows for the integration of *will* and *BGT* into the English modal system (Sweetser, 1990). Finally, we argue that the two future constructions illustrate the concept of inter-lexical polysemy (e.g. Evans, 2009) in which two constructions share a general semantic domain, but also maintain distinct semantic profiles that relate back to their original meanings.

Key words: future, *will*, *be going to*, grammaticalization, polysemy

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Composite Utterances in a Signed Language: Topic Constructions and Perspective-taking in ASL

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Composite utterances are identified in Enfield (2009, 2013) as utterances that are “built from multiple signs of multiple types” (2009: 221), meaning that in any conversational “move” speech, gestures, eye-gaze, intonation patterns, physical stance, etc. all participate in the utterance, and the meaning derived from it is constructed by the composite of these participant types. Thus it is frequently not possible to understand the full meaning of an utterance by paying attention only to the speech stream without regard to co-speech gestures, for example. Kendon (2004) likewise considers utterances as multimodal ensembles, taking into consideration both speech and gestures. However, Kendon (2013) has recently made the plea to abandon the term “gesture” altogether as, he claims, it implies a gesture/non-gesture dichotomy, whereas all participant types of an utterance ensemble may equally be considered as gestural.

These views suggest that our definition of language itself may be too narrow, and that we should re-examine the composition of language structure. Of the many questions that ensue, the present study investigates one: How does the notion of composite utterance play out in a signed language such as American Sign Language (ASL)? Without the inclusion of the speech stream, and thus articulated in the same modality as are gestures, the distinction between language and gesture has seemed less clear, leading some to ask whether signers even gesture at all and some to suggest that gestures and formal signed language are substantively different systems (Singleton, Goldin-Meadow and McNeill 1995). On the other hand, others have posited a continuity approach to gesture and signed language (Wilcox 2002) especially in light of grammaticalization studies.

In the present study, I examine a number of constructions in ASL, including topic-comment constructions and clauses that include “mentally rotated” uses of space, through the lens of Enfield’s composite utterances proposal, looking both at component parts and how they function to ground elements in the discourse and guide the interlocutor through the textual structure. I use Enfield’s conventional versus non-conventional type categories in examining both lexical and prosodic elements in topic constructions. Finally, I use data on topic constructions and perspective-taking to address the question of continuity or discontinuity regarding gesture and linguistic material, taking into consideration the views expressed by Enfield, Kendon and Wilcox.

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Socio-cognitive salience and the role of *the local*

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This paper adopts a socio-cognitive approach to the investigation of language variation and will focus on the role of salience in this connection. Salience is here seen as *the association of social content and linguistic forms in the cognitive domain* and it will be used in the interpretation of results of a study of Tyneside English morphosyntax. In particular, it will be argued that *the local* as a social index of vernacular forms may be linked with the salience of forms (similar results were found by Honeybone & Watson 2013 for Liverpool English).

The Tyneside study consisted of three empirical studies: a corpus study (based on the NECTE corpus patterning frequency of use over time), a questionnaire study (investigating participants' awareness of features) and a popular dialect literature study (which linked the two other studies). Among the 12 variables investigated (pronouns, sentential negation, verbal morphology), in particular the unique local variables *divn't*, *wor*, *telt*, and *hoy* proved particularly salient to the questionnaire participants. Suggestions for the interpretation of these patterns include social indexicality (Silverstein 2003, Johnstone 2009) and enregisterment (Agha 2003, Beal 2009) to account for how the variables come to carry social meaning in the local community and exemplar theory (Pierrehumbert 2001; Hay, Warren and Drager 2006) to account for how the link between the social and the cognitive aspects of language might be combined in the mind. Overall, the results of the three studies indicated that social factors such as perceptions of uniqueness and indexical value in the form of localness might influence the salience of forms.

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Linguistic and conceptual representation of motion in English and Chinese

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Although our understanding of motion is based on a universal image schema that has a kinaesthetic basis, languages show striking typological differences in encoding motion (Talmy 2000, satellite- vs. verb-framed languages; Slobin 2004, equipollently-framed languages). In English (satellite-framed), manner (and cause) of motion is characteristically encoded within the verb, while path of motion is expressed in modifiers. In Chinese (equipollently-framed), however, manner, path (and cause) can be conveniently packaged in a single verb compound. This study investigates whether language-specific lexicalization patterns affect speakers' conceptual representation of motion.

Using 32 triads of short video clips showing varied types of motion events (spontaneous vs. caused motion), we compared English and Chinese children's linguistic description of motion to their performance in a non-linguistic similarity judgment task. Our results showed that English and Chinese speakers differed significantly in their verbal description of motion (particularly in a caused motion context). English speakers across ages used a 'manner verb + path particle' combination whereas in Chinese, speakers from an early age on (3 years) used a verb compound in conjunction with a ZHE construction that shows verb-framing properties (analogous to the English while V-ing form), thus allowing for multiple motion components to be encoded simultaneously.

In the non-linguistic (match-to-sample) task, we hypothesized that If children's judgment on similarity between motion scenes is similar prior to acquiring the spatial language patterns exhibited by adults (e.g. path-oriented at age 3) but shows differences after such acquisitions (e.g. manner-oriented in English vs. equally manner- and path-oriented in Chinese at ages 8 and 10), it can be concluded that the linguistic effect manifests itself in the maturation of children's spatial cognition. The results suggested, 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 categorical measurement of overt choices, older children and adults also showed a shared tendency of being more path-oriented. However, the analysis using continuous measurement of reaction time revealed significant variations in spatial cognition that can be related to linguistic differences: English speakers tended to be more manner-oriented while Chinese speakers were equally manner- and path-oriented.

On the whole, our findings indicate a likelihood that children's non-linguistic thought is similar prior to internalising the lexicalisation pattern of motion events in their native languages, but shows divergences after such habitual use, thus suggesting that the pattern of non-linguistic thought may be linked, among other things, to linguistic structure. These findings were further discussed in relation to factors such as the extent of typological differences between languages, categorical and continuous measures (overt choices and reaction time) in methodology, and the use of shadowing conditions.

The grammaticalization and lexicalization of Chinese disjunction: A historical corpus study

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Disjunction is a semantic sub-category of coordination. Because of the scarcity of research on this linguistic structure, linguists have many a quibble with regard to its typology on the one hand, and the trajectory of its diachronic development on the other. Specifically, there is disagreement in the relationship between disjunctive marking and irrealis marking across languages (Merlan 1982; Mous 2007; Mauri 2008; Pedersen 2013), and in the source of change and direction of grammaticalization (Mithun 1988; Haspelmath 2007), which lead to the emergence of disjunction.

Based on historical corpus data, this study traces the development of two disjunctive constructions in modern Mandarin, [X *huo* Y] (henceforth D1) and [X *huozhe* Y] (henceforth D2), which show register-related complementary distributions as a result of stylistic variation (Lü 1980). It is found that the two constructions emerged by way of different diachronic processes. D1 developed via grammaticalization based on stepwise micro changes in specific constructional contexts. D2 came into being by way of lexicalization in an emphatic discursive variant of an earlier transitional form of D1 under phonological pressure from disyllabification in medieval Chinese. Close examinations of historical corpus data on both constructions suggest non-linear, gradual micro-changes triggered by a series of form-meaning reanalyses in construction-specific contexts, which is enabled by an isolating typology characterized by "precategoryality" at the lexical level and "hidden complexity" at the syntactic level (Bisang 2010:246).

The findings demonstrate the pivotal role of construction-specific form-meaning reanalysis in the micro-changes crucial to the emergence of both constructions. However, different constructional contexts may give rise to divergent processes of change, e.g. grammaticalization vs. lexicalization (Himmelman 2004). The findings confirm the conceptual and structural continuity from irrealis constructions to disjunctive constructions and highlight frequency of use as a driving force in the emergence of novel constructional meanings and the entrenchment of constructional schemas. Finally, the study provides further evidence of the role played by an isolating typology in syntactic and categorial reassignment as a key step both in grammaticalization and in lexicalization. The research has theoretical implications both for the linguistic typology and for the diachrony of disjunction, and has methodological implications for diachronic construction grammar.

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Behavioral profiles of reflexive-type markers in Polish

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Reflexive expressions used with transitive verbs convey events in which the same participant fills the agent and the patient role in the action, 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), have argued that the heavy reflexive marker *siebie* encodes situations in which 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 in which the agent and the patient merge into one entity — it has a role-neutralising function (Dąbrowska 1997: 325).

The distinction between heavy and light reflexives explains a large portion of the variation in linguistic data. Nevertheless, in some types of contexts the choice of pronoun appears arbitrary — especially with verbs of emotion (*kochać* 'love', *nienawidzić* 'hate', etc.) and sensory perception (*widzieć* 'see', *słyszeć* 'hear', *obserwować* 'observe', etc.). On the cognitive linguistic tenet that a difference in form entails a difference in meaning, the choice of the marker should be motivated (Langacker 1987: 294). In fact, native speakers of Polish acquire these markers felicitously and use them in a non-random way. I will test the hypothesis that some more typical contexts exist for these verbs and on the basis of these contexts speakers build up a prototypical use for each marker. To establish the factors that determine the choice of the marker with these verbs, I conduct a corpus analysis based on data drawn from the ~7.8bn words pITenTen corpus. 250 independent examples of each construction are extracted and annotated: a Behavioral Profile-type analysis (Divjak & Gries 2006) that captures morphosyntactic, syntactic and semantic properties is supplemented with information on discourse coherence and event construal. A binary logistic regression model is fit to the data.

Preliminary results suggest that the key factors which influence the choice of *się* versus *siebie* are negation, the number of participants in the discourse as well as the temporal or spatial distance between the agent and the patient of the action denoted by the verb. The latter two factors go beyond clauses or sentences and function on the discourse level. Moreover, even though these factors significantly affect the selection of the marker, they do not predict or explain the choice in all contexts. I will argue that the choice made by the speaker affords a different perspective of the situation described. This finding lends support to the hypothesis that speakers build up a prototypical usage of lexeme on the basis of multiple exemplars that share similar contexts and they infer this information even if the context does not constrain the choice (Divjak & Arppe 2013: 252).

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Item-Based Relevance of the Usage-Based Theory to L2 Acquisition of Japanese Particles

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The last decade has seen increased interest in how the usage-based theory of language acquisition may be applicable to second language acquisition (e.g., Durrant and Schmitt 2009; Lemmens and Perrez 2010). Central to the theory, which has established itself as a powerful paradigm for L1 acquisition research, is the notion that actual language use, and not abstract rules, is the foundation for language learning. Assuming “many of the processes operating in L1 acquisition are relevant in L2 acquisition as well” (Dabrowska 2009: 277), it is expected that L2 acquisition processes can be accountable and/or predictable by usage-based models to more or less degrees. However, very few studies have actually based their arguments on L2 acquisition data (c.f., Ellis and Ferreira-Junior 2009) and even fewer have compared the acquisition patterns among multiple linguistic items.

The goal of the present study, therefore, is to determine the extent to which the usage-based theory may explain different L2 acquisition patterns. The focus is on Japanese particles, including, *ni*, *de*, and *to*, each of which is associated not only with multiple senses, but also with multiple functions. A preliminary analysis based on a corpus of spontaneous speech data has indicated different patterns of acquisition among different particles, as well as among different senses. For example, learners start to learn *ni* by associating its spatial senses with a small number of verbs and in restricted environments, demonstrating a pattern that is consistent with a usage-based model of language acquisition, whereas *de* does not seem to be associated with any particular nouns or verbs, and multiple senses appear from the initial stage of acquisition.

While it is generally acknowledged that L2 acquisition processes are influenced by a variety of learner-internal and external factors, previous studies that have dealt with the relevance of the usage-based theory to L2 acquisition processes have focused on those that are consistent with usage-based models, and have not paid enough attention to those that are not. By identifying the similarity and difference in the patterns of L2 acquisition among multiple grammatical morphemes in Japanese, the study aims to determine how such similarity and difference can be explained by the usage-based theory, and to thus determine the cognitive and non-cognitive factors that underlie different acquisition patterns.

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An attempt at a unified approach to salience in Cognitive Grammar

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A long-standing problem in Cognitive Grammar (e.g. Langacker 1987: 187–188) is the characterisation of the relationship between different kinds of salience—a problem which has received renewed attention in recent years (e.g. Langacker forthcoming). This presentation suggests an independently-developed approach, which aims to provide each kind of salience with an operational definition.

Perhaps the most easily-operationalised concept of salience is what is variously known as “accessibility” (Ariel 1990), “activation”, or “givenness” (Chafe 1994). Roughly, this refers to the degree to which an entity is in the “focus of consciousness” of the discourse participants at a particular point in time. It is usually diagnosed by the ease with which the entity can be referred to with a pronoun or an unstressed noun phrase; and in psycholinguistics, it is studied in terms of visual attention and conceptual priming (among many possibilities).

Given the ready availability of “accessibility”/“givenness” as a concept of “salience” that is securely known to be psychologically real, it makes sense to try to relate the many types of salience postulated in Cognitive Grammar to some notion of referential accessibility. This is not a new idea; Langacker (2001) describes possessors, topics, and focal participants (core arguments) as types of “reference points”, using a construct that is also used to describe referential accessibility in the context of pronominal anaphora (van Hoek 1997). This presentation focuses on the notion of “profile”—while also touching on other kinds of salience—and tries to make as explicit as possible the conceptual import of each kind of salience in terms of the dynamics of language processing.

The profile of an expression is that element of the evoked conceptual content that the expression “designates” (Langacker 1987: 183). Langacker (1987: 188) explicitly suggests that the profile is “activated at a...higher level of intensity” than other elements of the evoked content (e.g. in *The plane that descended*, the conception of the plane is more active than that of its downward motion). This characterisation appears to be supported by experiments using the visual-world paradigm, which clearly show that hearing a noun phrase directs attention to (in other words, visually activates) the entity that the noun phrase designates.

Yet this cannot be the full story, as it is easy to find cases of noun phrases whose referents are not activated (in the sense that they are not subsequently available as antecedents of pronouns). This is the case not only with “non-referential” NPs (e.g. predicate nominals), but also with NPs that are contained in presuppositions (e.g. *I met the woman who fixed my computer. *It...*).

However, even in these cases, it seems likely that the entity designated by the NP, though it may not be activated in an absolute sense, nonetheless is *more active* at the end of the NP than it was at the start. Thus, as a first approximation, it is suggested that the profile of an expression is the entity whose activation *increases* (even if not maximally) during the course of that expression.

A further complication arises, however, when we turn our attention from noun phrases to finite clauses. While it is true that a clause activates the conception of an event (e.g. *Sam washed the windows. It took two hours.*), it typically also activates the participants that are coded by its arguments (e.g. *...They hadn't been cleaned for a year.*)—indeed, even more so. Yet we would not want to say that these participants are designated by the clause.

A possible solution to this is to argue that in fact, a relational profile consists of multiple entities: the participant(s) in the relation, as well as an entity that is emblematic of the relationship (e.g. a Davidsonian argument in the case of a finite clause, or a location in the case of a locative PP).

While the above proposals are admittedly speculative, they go some way toward fulfilling the pressing need for operational definitions of semantic notions in cognitive linguistics (Dąbrowska 2009). Such definitions are essential in order for cognitive grammatical analyses to be tested empirically.

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Experimentally determining the main clause in English finite complementation constructions

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The traditional analysis of finite complementation in English (e.g. *I know that she left*) is that the propositional-attitude verb (e.g. *know*) is the head or “main verb”, whereas the content clause that follows it (e.g. *(that) she left*) is a “subordinate clause” (Langacker 1991, Halliday 1994, etc.). This is typically established on the basis of structural parallels between content clauses and direct-object NPs.

However, as shown by Thompson (2002), Verhagen (2005) and others, in spoken discourse it is nearly always the content clause that carries the main informational load of the sentence, and serves to “move the discourse forward”. On the basis of this fact, these researchers argue that the head of a finite-complementation construction is actually the content clause, and that the propositional-attitude verb and its subject are better understood as constituting an evidential or epistemic adverbial modifier.

Dąbrowska (2009) points out that disagreements such as this are caused by the lack of clear operational definitions, in this case of the notion “head”—or “profile determinant”, in the terminology of Cognitive Grammar. In this talk, we propose an operational definition of “profile determinant”, and use it to experimentally investigate whether finite complementation constructions are headed by the propositional-attitude verb or the content clause.

In Cognitive Grammar, the “profile determinant” of a construction is the component which designates the same entity as the entire composite structure (Langacker 1987: 288). (For example, the profile determinant of *jar lid* is *lid* (not *jar*), because *jar lid* designates a type of lid and not a type of jar.) A consequence of this definition (Langacker 1987: 467) is that the semantic properties of the profile determinant are inherited by the composite structure. (Thus, a jar lid has all the properties of a lid, but not those of a jar.) Applying this to finite complementation, this means that if *know* is the profile determinant of *I know that she left*, then the sentence designates an event of knowing rather than one of leaving (Langacker 1991: 436), and exhibits the semantic properties of *know*, but not those of *left*.

We report on two experiments in which we examine a set of sixteen propositional-attitude verbs, and try to determine, in each case, whether it is the propositional-attitude verb or the content clause that is the profile determinant. In the first experiment, subjects were shown one sentence exemplifying each propositional-attitude verb; after each sentence, they saw a list of twelve features that included four features of the propositional-attitude verb and four features of the main verb of the content clause. (These features had been elicited in a preliminary study.) The subjects’ task was to indicate which features best describe the overall meaning of the sentence. In this experiment all subjects saw the same list of sixteen sentences; the second experiment controlled for the (potential) influence of the content clauses by having sixteen conditions, each with different combinations of propositional-attitude verbs and content clauses.

We found that four of the propositional-attitude verbs in our study (*thought*, *remember*, *suspect* and *admitted*) tend to be profile-determining, and five (*found*, *realised*, *says*, *agreed* and *believe*) are non-profile-determining (in other words, the content clause is the head); the other verbs (*knew*, *announced*, *showed*, *saw*, *suggested*, *concluded* and *claimed*) did not show a significant effect. We consider possible semantic and syntactic explanations for this pattern of results, and find ourselves forced to conclude that what we have found are simply idiosyncratic properties of these verbs.

We hope, however, to have shown that the concept of a “profile determinant” can indeed be given a meaningful operational definition, and that this can be used to test grammatical analyses experimentally.

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The effect of metaphor on frequency of usage Horns are mentioned more for unicorns, less for devils

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The most characteristic body parts of animals (including legendary creatures) tend to be mentioned frequently when the animals are mentioned in a text. However, through our experiments, we found that characteristic parts of animals—i.e. those which human beings do not have—are more frequently used in metaphors but less frequently mentioned with a literal meaning. We concluded that this difference derives from the usage of metaphor as the source domain.

We investigated the use of the word *tsuno* ‘horns or antlers’ among the names for the characteristic body parts. When we searched for mentions of animal horns in the corpora of BNC (En), BCCWJ (Ja), and Google N-Gram (En, Ja), the results showed that the top 10 most frequently mentioned animals out of 150 animals (including legendary creatures) cover 95% of mentions of animals in both Japanese and English (deer, cattle, sheep, goats, rhinos, Japanese *Oni* (devils), unicorns, rabbits, and (En: buffaloes, antelopes, Ja: dragons, giraffes). Horns are considered characteristic parts of cattle and deer because other animals do not have them. Certain legendary creatures such as unicorns, rabbits (as jackalopes), and *Oni* are included among the high-frequency animals. These three are related to real animals (horses, rabbits, and humans, respectively), but with the addition of horns.

In the experiment, we focused on horns (antlers) and verified whether they are regarded as a characteristic feature of each animal. The pie graphs in Figure 1 show that, whereas the unicorn’s horn is mentioned in 81% of instances where the animal is described (graph 1) and the deer’s antlers in 63% (graph 2), the *Oni*’s horn is limited to only 4% (graph 3). When we asked the participants (crowdsourcing sampling method; 1,000 Japanese speakers) to identify which of pie graphs 2 and 3 referred to *Oni*, 86% of them wrongly chose graph 2. They made their judgment based only on the proportion of horns and antlers shown in the graphs. Thus, the participants regarded the horns of *Oni* as a characteristic part and expected them to be mentioned frequently. Why is this characteristic feature of *Oni* not mentioned as frequently as expected? What is the difference in the mentioning of horns between *Oni* and unicorns?

Then, we analysed the examples in the corpora and found that 30% of mentions of *Oni* are metaphors for human beings. The verb that most frequently co-occurs with the word *Oni* is ‘become [*Oni*]’ (7%), used in metaphors. For example, a human who becomes angry or strict can be referred to as *Oni*, meaning he or she has metaphorically grown horns. In contrast, the word ‘unicorn’ is not used as a metaphor for a horse. Moreover, an animal which has a representative characteristic part is not mentioned with the animal itself in Japanese idioms (such as ‘X poked his (bird) beak into’ or ‘X put out his (fox) tail’) because it would be redundant. Similarly, *Oni* is a man with horns, and the parts are truly representative. The redundancy omitting phenomenon, in which the most characteristic feature tends not to be mentioned, is an effect of the metaphor.

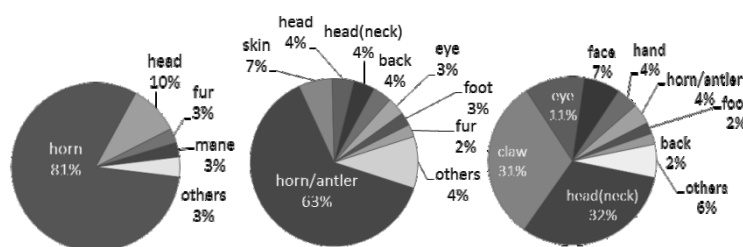


Figure 1. Examples of pie graphs used in the second experiment

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Do speakers select constructions depending on the naturalness of described complex motion events?: Cases of video descriptions in Kupsapiny and Sidaama

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The present study analyzes data in which 12 speakers of Kupsapiny (the Southern Nilotic language of Ethiopia) and 14 speakers of Sidaama (a Highland-East Cushitic language of Ethiopia) described self-agentive motion events in 30 video clips as macro-events (in Talmy's (1991, 2000) sense) (Kupsapiny: 171 instances, Sidaama: 158 instances), where path and/or deixis and manner were mentioned. It describes typological properties of these languages (basically, Kupsapiny: satellite-framed, Sidaama: verb-framed) by examining constructions used in the video descriptions for the NINJAL project on motion event descriptions, and questions Croft et al.'s (2010) hypothesis that more typical or natural situations are likely to be expressed in a more integrated way than those that are less so.

Croft et al. hypothesize that different constructions have different degrees of integration (in the order of the tightness of integration: double framing, satellite framing < verb framing, compounding < coordination), and more typical or natural situations are likely to be expressed in a more integrated way than those that are less so. Thus, according to this hypothesis, in the case of the motion events with different manners that the present study dealt with ('walking', 'running', and 'skipping' events), it is predicted that a more integrated construction is likely to be used for 'walking' events than for 'running' events, and for 'running' events than for 'skipping' events.

However, this hypothesis is based on only five languages (Bulgarian, Dutch, English, Icelandic, and Japanese), and the results of the present experimental study on Kupsapiny and Sidaama do not necessarily support it.

Kupsapiny has various constructions that can be classified as satellite-framed, participle-framed, verb-framed, and mixtures of some of these. The satellite-framed construction, where a manner verb takes the satellite verb suffix for deixis and that for the ALONG vector and/or that for another vector, is possible with limited combinations of path components, and is used when the described path components fit in the range of any of these combinations. Otherwise, a multi-verb construction consisting of a main verb and a participle has to be used. A prediction from Croft et al.'s hypothesis would be that the most integrated construction in Kupsapiny, namely a satellite-framed construction, is more likely to be used for 'walking' events than for 'running' events, and for 'running' events than for 'skipping' events. However, the satellite-framed construction was less frequently used for 'walking' events (65.9%: 29 out of 44 instances) than for 'running' events (72.3%: 68 out of 94 instances).

Sidaama has two multi-verb constructions, a simultaneity construction and a converb construction. If the negation scope test (e.g. Noonan 1985, Bohnemeyer et al. 2007) is applied to these constructions, the simultaneity construction turns out to be more integrated than the converb construction. According to Croft et al.'s hypothesis, it is predicted that the simultaneity construction is more commonly used for 'walking' events than for 'running' events, and for 'running' events than for 'skipping' events. However, this construction was the least commonly used for 'walking' events (71.4%: 10 out of 14 instances), and was more commonly used for 'running' events (91.6%: 76 out of 83 instances) and 'skipping' events (95.1%: 58 out of 61 instances).

Therefore, as far as the video descriptions are concerned, the choice of the constructions does not necessarily depend on the typicality or naturalness of the described complex event. Nevertheless, in both languages, the manner of motion was the least frequently mentioned for 'walking' events (11.1%: 19 out of 171 instances in Kupsapiny; 8.9%: 14 out of 158 instances in Sidaama), perhaps because walking is the most common manner of motion.

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How African languages fit in Talmy's typology of event integration

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This study examines how African languages fit and do not fit in Talmy's typology of event integration (1991, 2000) by investigating Akan (Kwa; Ghana), 'Alle (East Cushitic; Ethiopia), Bende (Bantu F12; Tanzania), Herero (Bantu R31; Namibia and Botswana), Kumam (Western Nilotic; Uganda), Kupsapiny (Southern Nilotic; Uganda), Saamia (Bantu E34; Uganda), Sidaama (East Cushitic; Ethiopia), and Yoruba (Yoruboid; Nigeria).

According to Talmy's typology, verb-framed languages typically encode the core-schematic, framing event component of an event complex (e.g. path of motion) in the main verb, and express a co-event component (e.g. manner or cause of motion) in an adverbial or a subordinate/non-main clause; on the other hand, satellite-framed languages characteristically use a satellite to express the framing event component, and encode the co-event component in the verb root. This contrast applies not only in the event domain of motion, but also in state change, realization, temporal contouring, and action correlation. Talmy (2000:222) classifies Bantu languages as verb-framed languages, but there seem to be no studies looking at event integration patterns across African languages. On the other hand, cross-linguistic studies on African languages in recent years tend to emphasize similarities between genetically distant but geographically close languages that seem to result from language contact (e.g. Heine & Nurse 2008). The questions that the present study addresses are first: What pattern(s) do African languages show? Second, do they each follow the pattern(s) consistently across all the event domains? Third, is there any pattern found across African languages?

Our general findings are as follows.

- Some of the languages that we investigated are verb-framed, but others are not.
- Even genetically related languages can have very different constructions and show different typological patterns.
- Only Kupsapiny has clear instances of satellites.
- Most of the languages have verb-framed constructions.
- All the languages have multi-verb/clause constructions whose verbs/clauses express a co-event and a framing event in this order, though their construction types vary.
- Most of the languages can show different typological patterns depending on language-specific factors (e.g. event domain, type of event component, tense).
- Many of the languages express non-motion events in a less integrated way than motion events.

Our findings on specific languages are as follows.

The three Bantu languages somewhat differ from each other. Bende normally follows the verb-framed pattern in expressing motion events with manner as a co-event and some categories of temporal contouring. For the other domains and categories, it usually uses a coordination. In Herero (motion data only), basically a verb-framed language, the main clause and a simultaneous clause characteristically express path and manner, respectively, but depending on the type of path and the verb, three other non-verb-framed constructions are also used: a satellite-framed-like (a manner verb taking a path complement), an infinitive, and another simultaneity constructions (main: manner, simultaneous clause: path). Saamia (motion and state-change data only) does not show verb-framed properties. Depending on the tense and mood of the verb, it uses a multi-verb construction without any linker where V1 (main) and V2 (non-main) express a co-event and a framing event, respectively, in this order, or a simultaneity construction (main: co-event, simultaneous clause: framing event).

Akan, which uses a serial verb construction, shows the equipollent pattern, though it has other types of constructions. Yoruba also exhibits the equipollent pattern in the domains of motion, state change, and realization, but deviates from it in temporal contouring and action correlation.

'Alle and Sidaama, which have a gerundive(-like) construction, follow the verb-framed pattern in motion, state change, and realization, but do not in temporal contouring and action correlation – they usually express a framing event and a co-event with an adverbial and the main verb, respectively. However, unlike Sidaama, which also uses another verb-framed construction (a converb construction) extensively, 'Alle lacks it, and has a consecutive construction, whose main verb expresses a co-event.

Kumam (motion and state-change data only) expresses motion events with a satellite-framed-like, an infinitive, or a simultaneity construction, according to the type of path. For state change, it uses a construction with 'till' or a construction with two finite verbs without any clause linkage marker, depending on aspect. Kupsapiny clearly exhibits the satellite-framed pattern in expressing motion as

long as the described path components fit in a certain range of complexity. However, in expressing more complex motion events and events in the other domains, it uses a multi-verb/clause construction.

Should discourse marker use be taught? Analysis of DMs occurring in dialogues in ELT textbooks

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To develop learners' pragmatic competence is one of the most important goals of foreign language education. Proper use of discourse markers in interpersonal interactions is closely related to pragmatic competence, which can be defined as the ability to use language effectively in interpersonal relationships (Kasper 1997).

One of the causes of learners' divergence from pragmatic norms may be the effect of instruction or instructional materials, and a textbook is a primary source of input and practice especially for learners of English as a foreign language. Although discourse markers frequently occur in dialogues in ELT textbooks, most of them are not explicitly introduced or practiced. Therefore, learners may end up not knowing how to use them in authentic interactions in their target language. Hellermann and Vergun (2007) notice the importance of learners' exposure to discourse markers through conversational interaction practice in class to access to these markers in appropriate situations outside the classroom.

This study looks at discourse markers presented in internationally used commercial beginner-level ELT textbooks and authorized ELT textbooks used in Japanese senior high school. The data analysed are types of discourse markers occurring in each dialogue and the functions of those based on Brinton's (1996) classification system, including textual functions (e.g. opening frame marker, closing frame marker, turntakers, etc.) and interpersonal functions (e.g. back-channel signals, cooperation/agreement marker, response/reaction marker, etc.). The relevant linguistic information for discourse markers, if provided, is also analysed. The analysis reveals 1) the range of discourse markers and functions in all the selected textbooks; 2) how un/evenly they are distributed across textbooks and 3) whether these discourse markers are presented with the use of meta-language and guided practices. At the same time, characteristics of presenting discourse markers in ELT textbooks and common weakness are discussed. In the end, some practical suggestions are made as to how teachers might supplement these materials and compensate for their insufficiencies.

Idiomat�city and metaphors, dead or alive: lost in translation?

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In an often-quoted article, Jakobson (1959) deemed translation of particular interest for linguistics. Yet in Cognitive Linguistics, it could arguably be said that until now, translation has received rather scant attention. One question for which translation might be particularly relevant in our field is that of idiomat�city. Once considered a marginal phenomenon, idiomat�city is now largely accepted as a defining characteristic of language. And this poses a particular problem to our understanding of translation: isn't the specificity of one particular language also the limit to its translatability into other languages? In order to answer this question, we want to show what can be learned from a detailed study of the various dimensions of idiomat�city — fixedness, (non-)compositionality, opacity, figurativity — comparing novels in one language and their translations in other languages.

In a usage-based approach to language, idiomat�city is linked to frequency of use and entrenchment on the one hand, and to our conceptualizing capacity on the other. It partakes to cultural specificity and also reflects our embodied cognition, two sources for conceptual metaphors, "an essential part of a theory of idiomat�city" (Gibbs 1995). On a par with what Lakoff (1987) calls 'grammaticised concepts', idiomatic expressions are processed instantaneously and effortlessly. And Wulff (2010) notes that idiomat�city, as a phenomenon ranging from collocations to idioms, is just as easily assessed by non-expert native speakers as by experts. We may surmise that professional translators possess a double competence regarding (at least encoding) idioms and idiomatic expressions in a source language and idiomat�city in a target language (usually their native language). We want to show that translators tend to translate texts into correspondingly idiomatic texts as a direct consequence of this double competence, not, as has been argued, as a concession to their publishers or their readers (Venuti 1995).

In this study, we look at three novels, each originally written in English, French or German, and compare them to their translations in the other two, so as to 'close the circle', as it were, between the generality of languages and the specificity of the texts. These novels are *Katz und Maus* (Grass), *M moires d'Hadrien* (Yourcenar), *Possession* (Byatt). We assess the idiomatic properties of the original texts using WordSmith software and comparing these characteristics with those of larger corpora (BNC for English, Frantext for French and Mannheimer Korpora for German).

Although contrastive phraseology has long sought to establish correspondences of idiomatic markers between languages, from the translation of idioms in bilingual dictionaries to collocation data banks, Dobrovol'skij & Piirainen (2009) show that idioms can only be translated in context, in terms of a functional equivalence and not always by their closest semantic equivalents nor even by an idiomatic expression. At the other end of the idiomat�city spectrum, the necessity to study collocations in use seems even more obvious, as the choice of one given lexeme in the translation of an expression often determines further choices. This is why we advocate a kind of study based on a fairly small corpus which, while not representative of the languages involved, is apt to provide useful insight regarding the relation between cognition and language(s).

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Word frequency and phrase frequency predict switch placement in the context of noun phrases with adjective modifiers in Russian-German code-mixing

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Substantial evidence has accumulated in recent decades to suggest that usage frequency influences language organisation and (monolingual) linguistic behaviour. Current approaches to code-mixing often neglect the possibility that the frequency with which linguistic patterns are distributed in a language and processing factors, such as chunking, may affect the structure of bilingual speech in general and that of code-mixing in particular.

Switch placement is possible within a syntactic phrase or at its boundary. In Russian-German code-mixing, this variation is found in the context of a noun phrase with an adjective modifier (cf. 1 and 2; German in italics).

- (1) na sledujuščej *haltestelle* vy dolžny vylezti
at next stop you have.to get.off
(2) ja xoču čë-nibud' s *gebratene nudeln*
I want something with fried noodles

This paper addresses the question of whether in the examined syntactic context a switch is placed between the Russian adjective modifier and the German head noun as in (1), or at the boundary of the German noun phrase, as in (2). The following factors are hypothesised to affect the choice between the two patterns: (i) adjective frequency, (ii) noun frequency; (iii) joint frequency of the adjective and the noun, and (iv) a statistical association between a noun and an adjective, modelled by mutual information (MI, which combines the joint, the relative frequency of the adjective, and the relative frequency of the noun; cf. Gregory *et al.* 1999; Ellis and O'Donnell 2011).

The data for the analysis were extracted from a bilingual Russian-German corpus that comprises naturally occurring conversations and informal group interviews of 20 Russian-speaking young adults living in Germany. The relevant frequencies were obtained from the large German deWaC corpus (Baroni and Kilgarriff 2006). When both the adjective and the noun were realised in German, tokens of individual words as well as tokens of their co-occurrences were counted. When a Russian adjective modified a German noun, the German equivalent of that adjective was used for the respective counts. MI values for the examined strings were computed. The generalised linear mixed model was utilised to analyse an interplay of the investigated factors in determining switch placement in the examined context. The predictive power of the final model is close to that of a perfect model.

The study revealed three main findings: (1) The frequency of the adjective predicts the largest part of the data variance: Russian adjectives occurring with German nouns are usually high frequency items, whereas German adjectives accompanying German nouns tend to be of lower frequency. (2) The joint frequency of an adjective and a noun is the other significant predictor of the analysed variation and outperforms the MI of adjective-noun combinations. The higher the frequency of an adjective-noun combination in German, the higher the probability for this combination to be a lexical chunk, accessed as a holistic unit in production, and thus for a switch to be placed at the phrase boundary in code-mixing. (The opposite also holds.) (3) The frequency of the noun, being a non-significant predictor, does not contribute to explaining the variation in the examined data.

In sum, the work demonstrates the role of lexical chunks and lexical frequency in determining the structure of Russian-German code-mixing.

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Cross-dialectal variation in English verb complementation: A multivariate corpus analysis

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Previous research on variation in English verb complementation has traditionally focused on the functional motivation behind the choice of *to*-infinitive or gerundial *-ing* complementation. Using a verb-based approach, this study shifts the focus to the alternation between finite complementation (*that*- or zero-clause) on the one hand and non-finite complementation (*to*-infinitive or gerundial *-ing*-clause) on the other with the matrix verbs *remember*, *regret*, and *deny*. Unlike the former distinction between the two non-finite verb complementation types, the latter variation cannot be accounted for in terms of functional differentiation and is therefore largely probabilistic in nature (De Smet 2013: 27–9).

The present corpus-based study diverges from the earlier diachronic accounts of the competition between finite and non-finite verb complementation (e.g. Fischer 1995; Fanego 1996; Los 2005; Rohdenburg 2006) in that it takes a synchronic cross-dialectal perspective as its starting point of investigation. Additionally, it makes use of multiple logistic regression analysis to tease out the relative and aggregate effects of language-external and -internal predictors on complement choice in Present-Day English. The data analysis first points to the existence of dialectal influence on English verb complementation, with the native dialects (New Zealand, Great Britain, and Ireland) more likely on average than their non-native counterparts (India, Hong Kong, Jamaica, the Philippines, and Singapore) to favor the non-finite pattern. Second, in line with the findings in Cuyckens et al. (2014), both ‘stative’ complement-clause (CC) verbs and ‘inanimate’ subjects strongly correlate with finite complementation. Third, the ‘passive’ voice of CC verbs exhibits only a weak association with the finite pattern, contradicting the hypothesis that passive-voice constructions tend to favor the more grammatically explicit variant (Atkinson et al. 1988: 105–6; Givón 1990: 957–8). Finally, consistent with the ‘distance principle’ (Kilby 1984: 175–6; Rohdenburg 1996: 159–60), the more intervening material there is between the matrix verb and the finite complementizer or the non-finite verb form, the more likely the finite pattern is used.

While our model has attempted to capture the main and interaction effects of all predictors on complement choice, it can be enriched by adding more syntactic and semantic regressors as well as matrix verbs with the same kind of variation in their complementation patterns. A further distinction can also be made between *that*- and zero-clauses on the one hand and *to*-infinitive and gerundial *-ing*-clauses on the other to account for potential fine-grained variation between the four subtypes of verb complementation.

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**A marker of shared knowledge, theticity and mirativity:
Information managing functions of the utterance-final particle *-canha* in Spoken Korean**

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-Canha is known to be the phonologically reduced form of the negative interrogative construction *-ci anh-a?* (-CON NEG-INDC) in Korean. While the unreduced construction *-ci anh-a?* is still being used as a negative interrogative construction, the corpus findings of this study show that its reduced form *-canha* is used as an utterance-final particle with very different functions from its original construction *-ci anh-a?* in Spoken Korean. The goal of this present study is to describe the current functions of the utterance-final particle *-canha* in Spoken Korean.

By examining naturally occurring spontaneous interactional conversation data which were selected from 21st Century Sejong Corpus, this present study argues that the basic function of the utterance-final particle *-canha* is to manage the flow of information in discourse, particularly by marking utterances which convey information that the speaker believes to be shared knowledge. Due to this specific function, *-canha* is frequently found in utterances where speakers convey information that they believe to be obvious, such as general common knowledge or 'communal common ground' (Clark 1996), natural consequences, and natural causes or reasons. Moreover, *-canha* is also often used as discourse strategies, particularly as a pre-sequence prior to a new topic into the discourse, or as a filler when there is a need to stall for time while the speakers are having trouble finding an appropriate expression. Furthermore, this present study also claims that *-canha* is used even in certain situations where there is an apparent lack of shared knowledge between the interlocutors when its basic function 'to explicitly mark the speaker's belief or shared knowledge' becomes further extended. Specifically, this paper argues that such extended functions of *-canha* can often be found when the speaker is expressing politeness, impoliteness, theticity, or mirativity.

Finally, this paper argues that *-canha* in Spoken Korean displays a very high degree of intersubjectivity (Traugott and Dasher 2011, Traugott 2010), because it explicitly indicates the speaker's awareness of the hearer's information status and changes therein. Due to this high degree of intersubjectivity, the utterance-final *-canha* functions as a very useful device in managing the information flow in spontaneous conversation by enabling the speakers to constantly signal and align the common ground with the other interlocutors.

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***Kasum* 'Chest/Breast' as a Locus for Emotions in Korean**

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In recent years, much research has been carried out on body-part terms in expressing metonymic and metaphorical notions in terms of embodiment in cognitive linguistics. Among the terms, heart-centered expressions have been widely explored in English and other languages to show the significance of our bodily experiences in expressing our emotions as well as interpersonal or social relationships. However, little research has been carried out on the metaphoric expressions of chest or breast (cf. Kövecses 2002, Lakoff & Johnson 1980).

The purpose of this research is to explore literal and metaphoric meanings of *kasum* 'chest/ breast' in a Korean written corpus in terms of corpus linguistics and conceptual metaphor (Perez 2008, Berendt, et al. n.d.). This research analyzes 2,373 tokens of *kasum*, 114 *ces-kasum* 'milk-breast' and 355 *simcang* 'heart' from the Sejong Project Corpus. Cognitive linguistic research has shown that the head is usually related to mind/reason but the heart to emotion/feelings in many languages. However, examination of the Korean data shows that *simcang* is used literally in most cases as a technical term in medical contexts, and that *ces-kasum* is used literally in most cases to refer to a woman's breast. Unlike these two body-part terms, *kasum* is used as a cover term to express not only the upper body part literally but also an entity as a locus and perceiver of emotion/ feelings metaphorically.

Examination of the corpus data shows the following major findings: (i) 819 tokens (34.5%) are used to refer to the body part chest literally, 1,512 tokens (63.7%) metaphorically (Deignan 2005), (ii) 921 tokens (38.8%) are used to show physiological responses in expressing emotion/feelings, using such terms as "the chest is aching, pounding, choking/being blocked, trembling, sinking, etc.", (iii) 412 tokens (17.4%) are used to show *kasum* is a locus for emotion. As these findings show, in Korean, as folk knowledge contrary to the scientific knowledge about the roles of the brain, *kasum* is viewed as a locus or perceiver for emotional feelings in response to physical/physiological stimuli.

The findings show that the folk knowledge forms the basis for conceptual metaphor for *kasum*: (i) a locus for feelings, (ii) a container of emotions, (iii) an entity/a material, (iv) a storage/hiding place, etc. Finally, this research shows that in Korean, unlike in English and some other languages, *kasum* plays an important role in expressing emotional feelings, displaying conceptual metaphorical meanings derived from folk knowledge.

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The dynamics of embodiment and collaborative emergence

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The dynamics of how agents confront the environment or others has become the topic of interest in *enactivism*, *ecological psychology*, and *dynamic systems theory*. This talk introduces a processual view on joint action in socio-cultural settings variously associated with the terms “coregulation”, “participatory sense-making” and “mutual incorporation”. Exemplifying this perspective through interaction skills notably in dance and martial arts, I discuss how individual strategies for interactively managing action increments can give rise to stable coordination dynamics.

Skilful embodied processes possess relevant dynamics on nested timescales. With this emphasis, the notion of the *behavioral arc* is introduced. In long-term learning, the gradual “education of attention” (J.J. Gibson) prefigures what is recognized as task relevant and which cognitive resources flow into the arc. Relative to specific interaction events the widest level of the arc determines how one turns towards the behavioral setting. This begins with contextual pre-adaptations by assuming a particular habitual bodily organization. One level down agents frequently “extemporize” on the basis of affordances, i.e. real-time action solicitations specified by visual, tactile, and other percepts. In some skills action choice is influenced by a summary goal or “architectural” (e.g. rhythmic) constraints. At the lowest level, agents fine-tune the execution of actions already initiated by using mechanisms of dynamic feedback control.

My second main claim is that assemblages of flexibly recruited – and not conventionally scripted – micro-skills constitute a lynchpin for explaining behavioral arcs. We see that in sports, dance, martial arts, and teamwork contexts, postural, enactive, perceptual, and inferential micro-skills create powerful synergies. With growing experience, this increasingly happens without relying on “ready-mades” and through *soft-assembly* whereby multiple micro-systems coalesce under situated constraints. The arc is frequently shaped by dynamic task specification while it is already underway.

In couples and groups the behavioral arc emerges through *collaborative dynamic emergence* in response to others and an evolving environment. To model these complexities we must (1) describe the macroscopic coordination dynamics of recurrent tasks or singular events and (2) explain how interspersed micro-actions, unfolding in turns or simultaneously, give rise to an emergent pattern. This is relatively straightforward for tasks with a predetermined coordinative mode, say in completing a Tango or Salsa figure together. Unique emergent patterns, as one might see in Contact improvisation dancers, are more challenging because indeterminate moments need to be managed, power negotiated, fluctuations dealt with (micro-repairs, reciprocal compensation, etc.) and good tricks applied for keeping the system in a state of action-readiness.

Another task for scholars is to explain how coordinated interaction patterns have come about in a whole culture or community of practice. Skill systems passed on over generations ensure that novices acquire basic interaction frames, the ethos and etiquette, as well as operative mechanisms ensuring complementary and perfectly micro-coordinated contributions (notably in cases of distributed cognition).

It is however insufficient to explain collaborative emergence through rote-learned contributions that automatically unfurl after a task has been initiated. This neither allows for well-adjusted micro-timing nor does it account for flexible action choices or improvised interaction without scripts. Instead we should think of agents as having internalized a set of control laws, i.e. robust perception-action linkages that enable reacting to perceptual cues in finely scaled increments. When two or more agents are connected through a tight sensorimotor resonance loop they can perfectly co-regulate each moment of the interaction. Examples are given of how two agents with non-identical control laws generate robust coordination dynamics in pair dance and martial arts.

Embodied interaction and improvisation: Topics in skill research and tools for multimodal analysis

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In developing a theory of embodied skills, the multimodal analysis of image schemas – and imagery more broadly – is a hitherto scarcely explored, but powerful approach. This presentation draws on cognitive ethnographies of sophisticated dyadic skills (*Tango argentino*, *Aikido*, *Feldenkrais*, *Shiatsu*) to introduce a paradigm for researching the skilled management of intersubjectivity, sensorimotor skills, and the basis of improvised interaction.

The first section outlines a novel method straddling empirical phenomenology and image schema analysis. The method of *Elicitation interviews* has been tailored to dialogically elicit preverbal body skills from practitioners. The interview and think-aloud procedures arrest the practitioner's attention on "thin slices" of experience and gradually fleshes them out. Aiming at a micro-genetic account, the reconstructive effort depends on putting together multimodal clues in metaphors, jargon expressions, prepositions, verb-based information (aktionsart, etc.), gestural data, and occasional sound contours. The researchers reference data to a timeline (even in actions at the <1 sec timescale) and describe simultaneously actions of limbs, torso, etc., as well as their coordination.

The second section discusses dimensions of complex interaction skills, with brief reference to the wider bodies of literature. All varieties of non-scripted interaction involve feats of rapport, synchrony, and complementariness achieved despite decisions being made on the spur of the moment and despite hundreds of possible elementary actions to choose from. In this regard, a key finding was that interaction capabilities comprise *multi-skills* which thrive on "soft-assembled" synergies between half a dozen sub-skills (and which models of embodied expertise must discuss in their interdependence). Detailed empirical phenomenology points to – in part new – loci for skill research:

- (a) Perceptual skills include permanent attentional marking of "what matters" functionally in a movement skill, a figure/ground mechanism. Experts also extract task-specific geometric and dynamic invariants from bodies and inter-body configurations ("smart perception"). All this supports observational learning as well as on-line interaction control.
- (b) Habitual mechanisms for "pre-calibrating" posture, gaze, hands, and general muscle tension create a backdrop: Agents reduce the general bodily degrees of freedom appropriately to master subordinate tasks of various sorts. These pre-calibrations contextually adapt the body image/schema and can be supported by mental imagery.
- (c) Repertoires of ideomotor imagery for steps, rotations, grips, etc: Motor control builds on both rich imagery of the whole movement and can be compacted in path-goal imagery, geometrical configurations, 3-D shapes, energy expenditure across time (vitality contours).
- (d) Imagery used for organizing rapport and the dyadic interaction "grammar" with respect to proper geometry and dynamics: It connects and configures the partners through force vector parallelograms, connected body-centers via a force chain, etc.
- (e) Perceptual sensations are sometimes augmented through "virtual" imagery projected into a body or the inter-body space. E.g. body axes or centers of gravity provide crystallization points for focusing the perceptual apparatus and for integrating sensations from across the body.
- (f) Improvisation repertoires: In improvising, agents use stored imagery of decision points that can be used for rerouting on-the-fly in response to environmental dynamics. At the intersection with the first point, agents also need to detect generic perceptual signatures of both known and novel situations so as to determine relevant continuation options (after J.J. Gibson, *affordances*).

In closing, I discuss pros and cons of using CL terminology in interaction research. While enactivism and joint action research benefit from recognizing construal variants and dynamic operations on gestalts, the terminology needs to be applied to complex whole-body configurations and needs complementary descriptions of active sensory skills (affordances, etc.) and an appreciation of multisensory invariants in action guidance.

What the lexicogrammatical construction of force relationships can reveal about conceptualisations of the self

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Background

It is often common for people with mental health problems to externalise disorders, emotions and thoughts from the self. This presentation explores how the self with a mental health problem can be conceptualised as being acted upon by a variety of forces, of which externalised thoughts, minds and disorders are just a few.

In cognitive linguistic research, FORCE is generally considered to be a basic image schema (Johnson, 1987). The theory of force dynamics (Talmy, 1988) posits that a force relationship consists of at least two opposing entities (an agonist and an antagonist) that are exerting force upon one another. These force relationships can be realised in language in numerous ways.

Objectives

This presentation aims to demonstrate various ways in which the lexicogrammatical construction of force relationships can omit agonists and antagonists from the clause. This can create ambiguity surrounding which entities are fulfilling the role of agonist and/or antagonist. By applying this to mental health, this study shows how the self with a mental health problem can be conceptualised as acted upon by either clearly delineated entities, such as THOUGHTS and the MIND, or by ambiguous entities that are omitted from the clause.

Methods

Fifteen participants were asked to write descriptions of their experiences of a mental health problem. Force relationships in the descriptions were identified, and the entities fulfilling the agonist and antagonist roles were coded. Additionally, grammar details were also coded, such as grammatical subject and modal verbs. This combination of semantic and grammatical coding allowed the analysis to pick out which entities were foregrounded and backgrounded in the descriptions.

Results and discussion

When THOUGHTS, MIND and DISORDERS are conceptualised as external to the self, these entities are highly agentive and exert force upon the self. These force relationships tend to be realised using prototypical X CAUSES Y TO DO Z constructions (e.g. *the thought made me run away*) (see Goldberg, 1995). In contrast, when the entity exerting the force upon the self is ambiguous and/or omitted, these force relationships tend to be realised using modal verbs or other constructions that place the self in the subject position (e.g. *I had to run away*). It is argued in this talk that, in the latter construction, the ambiguity surrounding the entity exerting the force also corresponds to an ambiguity of the nature of the force itself. It thus becomes unclear whether the self is driven (unwillingly) into action, or helped to realise a desired action. The implications of this in terms of recovery from mental health problems are discussed.

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Frame Shifting in Insults and Amateur Propaganda: The Analysis of Linguistic Creativity during the Ukrainian Political Crisis

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This presentation applies the cognitive linguistic tools to explain the meaning construction process in insults and propaganda that are utilized by the speakers in the time of political crisis. To explain the dynamic nature of sense construction and recognition, I undertake a robust systematic approach based on the theoretical developments of the notion of “frame shifting” by S. Coulson. The concept of frame as referring to the cultural background knowledge and beliefs that people unconsciously draw upon when using language has been used in various fields such as psychology, computer science, anthropology and linguistics for several decades. However, Coulson’s approach related to Conceptual Blending Theory (Fauconnier & Turner, 1998; 2002) advanced it to highlight the dynamic nature of the phenomenon and to include the analysis of the processes involved in constructing, recognizing a need for reconstruction and reconstructing the frames in on-line processing of an utterance. According to Coulson (2001), frame shifting reflects the “operation of a semantic reanalysis process that reorganizes existing information into a new frame” (p.34) which occurs when incoming information contradicts the constraints of the frame that has been contextually evoked earlier. Our data consists of examples where such semantic reanalysis is required for understanding of the utterance.

Coulson’s methodology has been successfully utilized to examine the mechanisms employed in humor (e.g., Coulson, Urbach, & Kutas, 2006; Ritchie, 2005; Wu, 2013). However, in this presentation it is applied to the analysis of linguistic creativity in a different domain: I analyze frame shifting occurring in insults and propaganda. The recent political and military crisis in the country of Ukraine in Eastern Europe affected not only political and social aspects of life, but also the language spoken there. The unfortunate events have produced fertile ground for an explosion in linguistic creativity, and informal conversations on social networks display an exceptional increase in creative use of language. The material for this presentation comes from the posts on a popular Russian-speaking social networking site *odnoklassniki.ru* and was collected between March and July of 2014 when a wave of posts appeared daily on the topic of the events in Ukraine and on Russian-Ukrainian relations. I analyze cases that involve construction of an initial frame, its disposal, and construction of a novel one: (e.g. “After being prisoners of war, Ukrainian military personnel returned to their stations, but revisit their imprisonment for breakfast, lunch, and dinner” or “I will grow up and will also kill Muscovites: in Moscow, by syphilis, for money”).

In this project, I identify the initial and resulting frames that are activated by the linguistic input, the types of conflict between those frames, and the role of visual input in directing the frame-shifting process. The cultural background knowledge and internalized models are explained, and the metaphorical mapping and conceptual blending involved in the consequential meaning construction are described in detail. I also highlight the importance of the initial, conflicting, and the resulting frames in the ultimate message and their roles in achieving the speakers’ pragmatic goals. I focus on internal configurations and governing principles of frame shifting in insults and propaganda and how frame shifting can act as a trigger for the pragmatic effect of offence and insult. Throughout the paper I explore, argue and demonstrate how Coulson’s semantic leaps theory offers a promising conceptual framework for developing this research.

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Linguistic Creativity in the Time of Political Crisis: Role of Analogy

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Linguistic innovation is a significant concept for understanding language evolution and has enjoyed considerable attention in the linguistic community. Scholars have discussed the limits / limitlessness of linguistic creativity, its many aspects, and the role different mechanisms played in it. One such mechanism that has recently returned to the focus of attention is analogy (Bybee, 1995, 2010; Bybee & Slobin, 1982; Chandler, 2008, 2009; Itkonen, 2005; Skousen 1989, 1992; Skousen & Chandler, 2007; Wanner, 2006) which has been defined as a conceptual strategy, a quality of structural or functional similarity, or a combination of both.

Usage-based Approach (Bybee, 1995, 2010; Bybee & Slobin, 1982; Ellis, 2013; Goldberg, 2006; Wilson, 2009 and others), and Analogical Modeling (Chandler, 1993, 1995; Eddington, 2002; Skousen 1989, 1992; Skousen, Lonsdale & Parkinson, 2002 and others) have been suggested as an alternative or a complement to rule-based approach to language and see analogy as one of the leading processes that explain the breadth and depth of linguistic resources existing in language and describe the mechanism of natural language processing.

This presentation examines the role played by the mechanism of analogy in the creation of neologisms and occasionalisms prompted by the ongoing political crisis in Ukraine. The revolution that disposed of an unpopular president sharply divided the country into pro- and anti-reform camps. Both engaged in ferocious name-calling and insults and passionate propaganda displaying impressive creativity in the process. Our sample consists of several hundred novel expressions in Russian and Ukrainian collected between February and June 2014, mostly on a popular Russian-language social networking site, *odnoklassniki.ru*, with occasional examples from *VK.ru* and several independent news sites allowing reader comments.

While the words and expressions we analyze are undoubtedly original and innovative, none are truly unique in the sense that all of them are rooted in lexemes, collocations, or texts already existing in the languages under discussion and are coined by means of analogy. We identify such types of analogy as phonological which modifies the sounds of one word to create a reference to another (*rashism*, *daunetskaya respublika*, *Kalomoyskiy*, *Parashenko*, etc.), morphological when the new token is created from an existing root by adding an unusual affix (*putinoidy*, *maidanutyie*, *maidanemo*, *Timoshennitsa*, etc.) with a subgroup undergoing atypical derivation influenced by rhyme (*kotyaka-seperatyaka*, *koteika-separateika*, etc.), phraseological when the novel item modifies an existing set phrase or an idiom (*maidan golovnogo mozga*; *Sala Ukraine! – Heroyam Sala!*, etc.) and intertextual when the new text invokes classical literature, folktales, or modern advertisement taglines (*Otstan'*, *strana orgomnaya!*; *Padeniye Parashi: Posledniy Den' Putinskoy Pederatsii*, etc.). We examine the sources of coinage and identify the 'anchor' and 'modifier' elements that serve as the basis of the creation of a neologism. We also examine pragmatic aspects of neologisms under analysis and the communicative goals achieved by creation of new elements versus utilizing linguistic resources already available in the language.

As a result of the study, we hope to expand the understanding of the issue of analogy and, more generally, of linguistic creativity by inspecting its mechanisms, connection to pragmatics, and its link to extralinguistic phenomena.

Multimodal metaphor in energy businesses advertising discourse on environment and sustainability across time

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This paper proposes a study of multimodal metaphor in Shell advertisements across time, more specifically from the perspective of advertising discourse. The study is framed theoretically within the Conceptual Metaphor Theory (Lakoff and Johnson 1980, Lakoff and Turner 1989, Lakoff 2002), and its applications to the study of discourse, in particular, multimodal discourse (see, for example, Charteris-Black 2005, Musolff 2006, Semino 2008, Forceville 2009). The data is a sample of 16 Shell advertisements from English-speaking magazines during the periods 1999-2000 and 2010-2012. For this purpose, a qualitative analysis of Shell ads is applied. The methodology consists of applying a Pragglejaz group (2007) metaphor identification procedure (MIP) with manual analysis of metaphors. The main argument presented in this study is that, if metaphor is a key instrument in persuasion and in the representation of metaphor framing in advertising, a study across time will reveal the different ways in which metaphor framing and discourse are constructed and the way in which persuasion is manifested discursively in two different moments in time. The objectives in this paper are the following: (i) to discuss the choices of source domains and metaphor scenarios used to describe the relationship between energy businesses, on the one hand, and the environment and sustainability, on the other, in two different time periods; (ii) how the highlighting and hiding of features of source domains and metaphor scenarios may vary across time, and (iii) the relation between modes. The results reveal, first, that, there are differences in source domains and metaphor scenarios which represent the Shell business related to the environment and sustainability in the two time periods. Thus, while the manifestations of recurrent conceptual metaphors, which are typical of environmental advertising (the JOURNEY metaphors) continue over the time period that has been studied, there are differences in the particular instantiations of these metaphors in specific metaphorical expressions. Second, energy businesses in the older examples are represented as EXPLOITATION-IRRESPONSIBILITY-DESTRUCTION OF ENVIRONMENT metaphor scenarios vs the advertised company business as EXPLORATION-RESPONSIBILITY- RESPECT OF ENVIRONMENT evoking, thus, Lakoff's STRICT FATHER VS NURTURANT PARENT morally loaded models. Third, there is a significant discourse manifestation of the advertised company business as a FRIEND-TRAVEL COMPANION in the more recent examples, together with a clear tendency to highlight their aim to fulfill the energy users' needs and hide their business interest in profit.

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Frequency Effects in Production and Perception of a Morphological Change-in-Progress in German

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The availability of modern data bases and advances in empirical methodology have enabled researchers in various disciplines of linguistics to analyse phenomena which hitherto could not be examined systematically. These new opportunities are taken advantage of in the present paper which investigates an assumed change-in-progress in German concerning the formation of the imperative singular in strong verbs with vowel gradation. In this paradigm, the established i-stem-formation is being replaced by an analogical e-stem form; for example, the respective forms of *geben* ‘to give’ and *befehlen* ‘to command’ can be found today as *geb(e)!* and *befehl(e)!* alongside *gib!* and *befiehl!*.

For the purpose of the present investigation, a corpus of very recent language material (2001-2013) has been compiled, yielding a sufficient number of instances for mixed-effects logistic regression models to be fitted to the data. In addition to other variables, data points were annotated for a number of frequency measures which potentially influence the entrenchment of forms in speakers’ mental lexicon and hereby a verb’s tendency to succumb to or resist analogical change. In this regard, the distinction between verb lemma and verb stem in German proved to be essential: it is not the token frequency of the full verb lemma *aufgeben* ‘to give up’ but that of the verb stem *geben* ‘to give’ which turned out to have a significant impact on the verb’s tendency to change.

The effect of verb stem token frequency in the dataset strongly suggests a gradual assimilation of the paradigm of strong verbs with vowel gradation towards the regular pattern, starting with the least frequent items up to the most conservatively behaving frequent items (figure 1). This “conserving effect” (Bybee 2010: 75) has typically been found for completed language change; however, it also seems to work in its very early stages.

In order for the gradual replacement of the established i-variant to be successful, speakers need to accept the analogical e-stem variant, i.e. perceive it as an equally valid form. To this end, an experimental study (self-paced reading with recall of the presented sentences) examines how speakers react towards the two imperative singular variants, depending on the stimulus verb’s stem token frequency. The testing of two different age groups among the subjects provides further evidence for the classification of the phenomenon under investigation as linguistic variation or change-in-progress as a function of the observed difference in the groups’ reactions to the stimulus imperative forms.

Amongst others, the present paper will show that the effect of verb stem token frequency identified for the production data is replicated in the perception experiment. More precisely, the i-stem imperative variants are processed faster and accepted among the higher frequency verbs, but processed slower and replaced among the lowest frequency verbs. The opposite effect is found for the e-stem imperative variants presented in the experiment, as illustrated in figures 1 and 2. Note that this effect again is gradual. Thus, the e-stem variants are perceived as fully-functioning forms of expressing the imperative singular towards one end of the frequency continuum; with time, they might gradually be accepted for the formation of higher frequency items as well. This trend is evidenced by the replacement of some high-frequency i-stem imperative forms by e-stem variants (see figure 3.)

Thus, a usage-based approach lets us identify variation and change and thus theorise along linguistic reality; to this end, the present corpus and

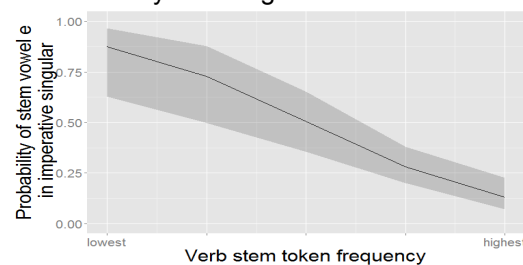


Figure 1: Verb stem token frequency effect in the corpus study

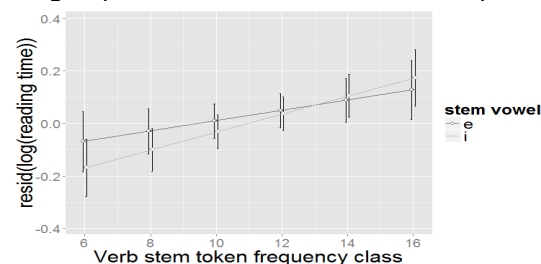


Figure 2: Effect of stem vowel and token frequency in reading task

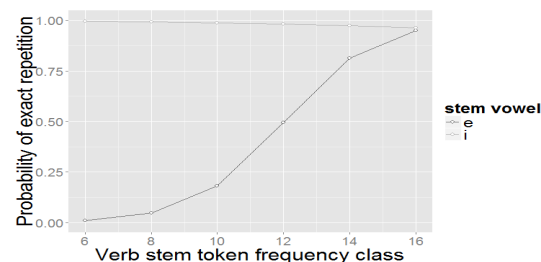


Figure 3: Effect of stem vowel and token frequency in recall task

experimental study lend insight to which circumstances need to be fulfilled for linguistic variation to evolve into a change-in-progress and eventually language change.

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Attitudes towards L2 accents: an Experimental Study of English as a Lingua Franca

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English has established itself as the lingua franca in an increasingly globalised world. From a diachronic perspective this is a recent phenomenon and one which is gradually giving rise to a new linguistic reality that affects the status of the languages of the European nation states in various manners and to various degrees.

In order to throw light on the relative ability of speakers from the main language groups in Europe to identify L2 accents of English and in order to assess whether the expected asymmetries in identification correlate with asymmetries in attitudes, the first large-scale panEuropean empirical study to investigate such matters was designed and carried out in 8 European countries in 2012-2013. In two successive experiments 12 different varieties of English (8 L2 accents and 4 native accents) were evaluated and then identified by panels of 100 listeners in each of the 8 European countries whose L2 accents were represented in the sample: 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 four 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 "typical accent and degree of accentedness" (prototypicality judgments) from a pool of 115 30-second recordings of the same text. The experiment was also recently run at the University of Canterbury, New Zealand, to allow for an overseas bird's eye perspective on European accents of English.

In this paper our focus is on the attitudinal measurements collected in part 1 of the experiment. As a first step we present and interpret the data gathered from a 5 scale 8 dimensional likertscale on which the 8 participating countries evaluated all 12 recordings. In the second place we correlate the asymmetries observed with data from a free production task in which test subjects were asked to "write down 3 words that you associate with this speaker". The results reveal interesting asymmetries across countries in the evaluation of the same individuals in the sociolinguistic scales of status and solidarity. Finally the paper discusses the extent to which the forced choice and free production tasks together help tease apart the three main variables involved in language attitude research: factors related to the individual, to the social group and to the language variety as such.

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Verbs of Rotation: a Cross-Linguistic Look at Metaphorical Extensions

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The paper is based on a long-term typological project focused on contrastive semantics of verbs within the domain of ROTATION and involving 15 languages (including Agul, Tatar, Hindi, Komi, Koryak, and Mandarin). Basically, we subscribe to the methodology developed in several previous cross-linguistic studies of small-sized lexical groups, such as aquamotion verbs (Lander et al. 2012), pain predicates (Reznikova et al. 2012), temperature terms (Koptjevskaja-Tamm et al. 2006), etc.). A list of basic frames (typical situations) of rotation has been created drawing on dictionary studies, corpus analysis and field work using questionnaires. The examples of such frames are: FIGURE SKATER ('unidirectional, high speed motion round the inner axis'), TURBINE ('unidirectional even, mechanical motion'), BOAT moving round the island ('circular motion round the Landmark in the same plane'), HAWK ('circling above the Landmark'), and others. The patterns of their lexicalization in different languages have been thoroughly examined and visualized using "semantic maps", close (though not fully identical) to those used in grammatical typology, cf. Haspelmath 2003 and others.

Along with direct meanings metaphorical extensions have been analyzed and classified to prove that different SOURCE meanings tend to demonstrate different types of semantic shifts. E.g. HAWK (chasing its prey) is compared to paparazzi following a celebrity (Hindi *ma"Drānā*) or people's thoughts revolving around the news (Tur. *dölanmak*). Cf. also similar example for emotions in Welsh:

<i>Mae</i>	<i>temtasiynau'n</i>	<i>cylchu</i>	<i>o gwmpas</i>	<i>Griffith</i>	<i>Jones</i>
be:PRS3SG	seduction=P	revolve: VN	around	Griffith	Jones

'Seductions **revolve** around Griffith Jones'.

The same shift is found for the BOAT frame or VORTEX, which also denotes outer-axis rotation, but never for the FIGURE SKATER, which belongs to the inner-axis rotation type. The latter develops the metaphor of an ongoing process (Jap. *mawaru*).

Surprisingly, this metaphor, as well as most rotation shifts, is similar to the metaphors of other groups of motion verbs with more general semantics, e.g. Norw. *Livet mitt snurrer raskere og raskere* 'My life **goes on** more and more rapidly'. The same is true for the approximation metaphor as in: Sp. *Las ensaladas rondan los US\$ 4* 'The price for the salad is (lit. **goes round**) about US\$ 4', which can also be found in oscillation verbs, e.g. in Rus.

<i>Cena</i>	<i>kolebletsja</i>	<i>okolo etogo</i>	<i>urovnja.</i>
Price-NOM.SG	fluctuate-PR3SG	around this-GEN.SG.M	level-GEN.SG

'The price **fluctuates** around this level'

This means that at the moment of developing a semantic shift, patterns of rotation (circular trajectory, deficiency of start and end point, etc.) become irrelevant. Rotation is too specific to be a source of a semantic shift. In most cases, the idea of rotation is bleached, but certain «traces» (such as Landmark, permanent distance between Trajectory and Landmark, iterativeness, etc.) are retained. These general parameters could be conceptualized as a result of "selective projection" (Coulson 2001) within the procedure of conceptual blending (Fauconnier&Turner 2002). Due to these parameters the systematization of the metaphors of rotation allows us to predict possible metaphorical extensions for other semantic domains.

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Types of metonymic motivation in English and Polish euphemisms: a contrastive study

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The aim of the presentation is to compare and contrast the use of metonymy motivating the meaning of English and Polish euphemisms. Euphemisms belong to those special instances of language use that avoid the literal and direct naming of certain things or experiences because of the taboo associated with them in a given society (Brown, Levinson 1987). The taboo spheres of culture that tend to employ euphemism in their language usually include profanity, sexuality, excretion, drinking alcohol and taking drugs, crime, murder and death, military action and religion (Keith, Burridge 1991).

The evasion of the explicit expression of the taboo meaning is based on a variety of linguistic mechanisms that serve as circumlocutions, among others: understatements ("sleeping" for "dying" and "spać/zasnąć" for "umrzeć"), generalizations and using deixis ("doing it" for "having sex" and "zrobić to" for "uprawiać seks"), shortening an expression ("what the..." for "what the fuck" or "mać" for "kurwa mać"), rhyming ("what the truck" for "what the fuck"; "homoniewiadomo" for "homoseksualista"), acronymization ("peeing" for "pissing" or "OPR" for "opierdol"), mispronunciation ("what the fudge" for "what the fuck" or "kurna" instead of "kurwa"), using personal names ("john" for "toilet" and "wacek" for "WC"), metaphor ("buns" for "buttocks" or "mieć lepkie ręce" for "kraść") and metonymy ("drinking" for "drinking alcohol" and "picie" for "picie alkoholu").

Especially the last mechanism in the above list, understood as conceptual metonymy, provides a wide range of possibilities to avoid the use of a taboo word (Shi, Sheng 2011). In the presentation it will be claimed that also some of the other linguistic mechanisms listed above can be interpreted as conceptual metonymies. Following the classification of metonymies suggested by Bierwiazzonek (2013), we will talk about (1) formal metonymy, which is based on a formal relation between the vehicle and the target, (2) referential metonymy, when one entity is used to stand for another, (3) propositional metonymy, in which one predication is intended to mean another predication within the same ICM, and (4) illocutionary metonymy, which usually means that one speech act stands for another speech act, where both speech acts are components of the same speech act scenario.

For instance, with reference to euphemisms in English and Polish, "what the truck" (for "what the fuck") or "mać" (for "kurwa mać") are examples of formal metonymy. Then, "drinking" or "picie" for "drinking alcohol", which follow the GENERAL FOR SPECIFIC mapping, are examples of referential metonymy. Next, "powdering the nose" or "przypudrować nos" used for "using the toilet", which follow the mapping ONE ACTION FOR ANOTHER ACTION PERFORMED IN THE SAME PLACE, are examples of propositional metonymy. Finally, asking "Shall I wipe your nose?" instead of saying "Wipe your nose!" (in Polish: "Wytrzeć ci nos?" instead of "Wytrzyj nos!") exemplifies illocutionary metonymy: here, the act of asking is used metonymically for the act of commanding.

The contrastive study of the types of metonymies behind English and Polish euphemisms will be based on the corpus analysis of the examples from the available dictionaries, collections and descriptions of euphemistic expressions in the two languages (e.g. Dąbrowska 1992; Holder 2002). The presentation will try to answer the following questions: What are the most and the least common types of metonymy motivating euphemisms in both languages? Which taboo topics are the most and the least common for each type of metonymy? Is it possible to talk about certain universal tendencies or rather independent patterns in this respect?

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Thinking-for-Speaking and the EFL Mind: Face-to-Face Dialogue to Talk about Vertical Space

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The purposes of *this experimental study* are: (1) To test the effect of the simultaneous use of iconic co-speech gesture imitation (ICSGI) with auditory training to teach the reconceptualization of *lexicon-grammar* of vertical space in distinct linguistic categories. (2) To test whether external speech has more of an effect than that of internal speech regarding the restructuring of *lexicon-grammar*. Talking about space substantially differs among cultures, despite the fact that physical space is the same everywhere (Bowerman, 1996b; Levinson, 1996). Although, there has been substantial challenges faced by L2 speakers of spatial language (Coventry et al., 2012), few studies involve L2 spatial language learning today. Studies indicate considerable difficulty learning spatial prepositions for FL learners (e.g. Ijaz, 1986; Munnich & Landau, 2010; Coventry et al., 2012). Empirical studies presented by Chu & Kita (forthcoming), Coventry et al. (2012), Kita (2000), Kita & Ozyurek, (2003, 2007), Langacker (2000), Levinson (2003), Morimoto & Lowen, (2007), Johnson (1987), Lakoff (1987), Lakoff & Johnson (1999), Vygotsky (1987), and Yamaoka (1996) have been examined.

Based on studies listed above, *this study* presents orientational image schema and reference point constructions of vertical space, focusing on UP-DOWN, contact vs. no-contact in spatial language and ICSGI with auditory training. The primary differences between Japanese and English regarding conceptualizing verticality of space are: (1) English describes vertical space with two different semantic categories regarding contact vs. no contact, while Japanese employ a single semantic category to describe vertical space. Reference point constructions proposed by Langacker (2000) powerfully explain the differences noted above. (2) Spatial prepositions are used to describe vertical space in English, while Japanese employs different word classes from that in English. For instance, relational noun *ue* +locative *ni* (equivalent to *on*, *over* and *above*) are used to express vertical space.

When co-speech gesture is taught to mathematics students at an elementary school level, the generation of correct gesture has been found to be crucial for learning (Goldin-Meadow et al., 2009). An experimental group using image-schema with translation-based instruction outperformed in an EFL class in Japan (Morimoto & Lowen, 2007). Teaching the prepositions *on*, *over*, and *above* simultaneously by highlighting semantic differences among them might be beneficial for Japanese EFL learners (Yamaoka, 1996). Spatial prepositions were taught with image-schema, ICSGI, and auditory training at EFL classes in Japan, based on the analyses of the unity of SLA, linguistics, and psycholinguistics. There are significant differences between English and Japanese regarding *lexicon-grammar* when expressing vertical space:

- | | | | | | | | |
|------------------|-------------|----------|---------|-------------|--------------|------------|-------------|
| 1. ON: | ①Ringo | ga | teeburu | no | <u>ue</u> | <u>ni</u> | aru. |
| | Apple | GA | table | LOC-GEN | on | LOC | VB. |
| 2. ABOVE: | ②Dento wa | yuka | no | | <u>ue</u> | <u>ni</u> | aru. |
| | Light WA | floor | LOC-GEN | | above | LOC | VB. |
| 3. OVER: | ③Hikooki ga | yama | no | <u>ue</u> | wo | tone-de | iru. |
| | Airplane GA | mountain | LOC-GEN | over | ACC | flying | PROG: NONP. |

Conclusions: When Japanese EFL learners re-conceptualize the vertical space from one to two semantic categories, restructuring *lexicon-grammar* occurs. Statistical analyses support the effect of ICSGI accompanied by auditory training about the *lexicon-grammar* development. There are (a) strong correlations ($r=.76$, $p<.001$) between delayed post-test (dpts) and post-test scores; (b) strong correlations ($r=.57$, $p<.001$) between dpts and correct ICSGI scores generated during dpt; and (c) moderate correlations ($r=.45$, $p=.001$) between dpts and exposure to auditory training. [effect size=1.35, power ($1-\beta$)=.95, α err prob=.005, critical $F=2.85$, participants=69 females and 57 males, range=16-18; M age=17.13].

Data, Figures, and References: Please refer to a handout for my presentation.

Categorization in Languages with and without Grammatical Gender: Evidence from Russian and Chinese

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Several studies have indicated that grammatical gender does affect thought (Jakobson, 1966; Sera et al., 1994 & 2002; Boroditsky & Schmidt, 2000; Boroditsky et al., 2003). So far, only Indo-European languages were considered. The goal of this study is to find out how Chinese speakers whose language only provides the natural gender category decide the gender of inanimate objects. Moreover, in contrast to the previous studies on Russian including only feminine and masculine, neuter gender was also considered. Two experiments were designed to test Chinese and Russian speakers' gender assignment. In Experiment 1, 20 Chinese and 20 Russian adults were asked to describe 30 inanimate nouns with three adjectives for each, which were then rated with gender by another group of participants. The results of a two-way ANOVA show no effect of language ($p > .05$) while there is effect of artifact / natural factor ($p < .05$). Participants tend to describe artifact with more masculine adjectives and natural beings with more feminine ones. This means both Chinese and Russian native speakers have opinions on things around them based on their characteristics, appearance, functions, etc. For example, although *flower* belongs to masculine grammatical gender in Russian, it is described with woman-like adjectives such as *beautiful*, *fragrant*, *small*, etc. In Russia, as in many other countries, women are those who appreciate flowers most. They receive flowers from men as a gift on special occasions or as a sign of romantic feelings.

In Experiment 2, the participants were asked to assign male or female voice to objects as if they were cartoon characters (Sera et al, 1994). Despite no language effect on the adjective use, there is language effect in voice assignment ($t=4.169$, $p<.001$). Russian speakers assigned voice based on a noun's grammatical gender and show a slight tendency to assign male voice for neuter nouns. However, there seems to be no such regularity among Chinese speakers. Their gender assignment is related to Chinese *Yin Yang* culture. The results between two groups are substantially different for the voice for *sun* (Russian – female, Chinese – male), *cloud* (Russian – male, Chinese – female), and *apple* (Russian – no particular preferences, Chinese – female). Sun in Chinese is 太陽 (tai4yang2), or 陽 (yang2), which is also a counterpart of moon, 陰 (yin1), in a traditional Chinese concept of *Yin* and *Yang* where *Yang* represents male principle in nature, and *Yin* is a feminine symbol. *Yin* 陰 (yin1) means "cloudy" and ideographically combines 今 (jin1) "now; present" and 雲 (yun2) "cloud", implying the "今 presence of 雲 clouds". It can explain why Chinese participants assigned male voice to *sun* and female voice to *cloud*. Based on the results of Experiment 1, Russian participants recognized the adjectives *light* (89.5%) and *warm* (73.7%) as feminine. We can conclude that *sun* in Russian mind is a female because it is associated with those two words. In Chinese culture, apples symbolize peace (Newman, 1996). The word for *apple* in Chinese is 蘋果 (ping2guo3), or 蘋 (ping2), the homophone of 蘋 (ping2) is 平 (ping2), which means *peace*. The blossom of the apple stands for *beauty*. We can suggest that Chinese participants see apple as a cartoon character with a female voice because it is associated with peace and beauty.

Russian grammatical gender system does influence Russian speakers' biological gender assignment but only when we consider feminine and masculine nouns' voice assignment. For adjectives and neuter nouns, the decision lies on participants' culture and special language features of the words. This study helps to understand the influence of mother tongue on its speakers, in this case, the influence of grammatical gender system on Russian native speakers in comparison to Chinese native speakers whose language does not provide this kind of system.

There are two limitations of the study. First, there was too much data collected from Experiment 1, and many adjectives were too specific, so that they could only be used with those certain items. For further research, we would recommend to limit the quantity of data. Also, one can specify what kinds of answers are acceptable. Perhaps, it can make data more related to the goals of a research. Moreover, it can make the process of data analysis more productive and speedy. Second, culture effect confounds with language effect. All the participants were college students, that is, young adults. In further investigations, we suggest including elementary school students. Their vocabulary is good enough for this kind of research, and they might not be familiar with some cultural concepts that can influence their choice (like the *Yin* and *Yang* concept).

Phonetic evidence for parts of speech in Russian

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This paper builds on two major claims of cognitive linguistics: 1) the system of parts of speech is semantically definable (Langacker 2008: 108), 2) differences in meaning of linguistic items are reflected as differences in form (Kemmer 2010). Since the distinction between nouns and verbs is one of the basic distinctions in the typology of parts of speech (cf. Beck 2002: 4), we expect to find differences that will signal to a native speaker whether they encounter a noun or a verb.

However, while it is well known that nouns and verbs may have different phonological behavior in a language (see Myers 2002, Bobaljik 2008, Smith 2011), few studies have addressed phonetic differences between parts of speech. There is only one study that I am aware of, Hollmann 2013, where phonetic difference between parts of speech is captured in an experiment. Hollmann asked native speakers of English to produce nonce nouns and verbs and discovered that such nouns and verbs differed in word length, the presence of nasal consonants, the presence of a final obstruent, final obstruent voicing, and frontness of the stressed vowel.

The present study investigates whether phonetic cues can be used to distinguish existing nouns and verbs in Russian. The paper reports the results of an experiment in which ten native speakers of Russian were asked to pronounce sixteen words. All words have similar phonological structure: they are monosyllabic, the syllable onset contains a sibilant /s/ and a stop, followed by a vowel and a one-consonant coda. Eleven of the words are nouns (e.g. *stol* 'table-NOM.SG'), and five are verbs (e.g. *styl* 'cool.down-PAST.MASC.SG'). In addition to difference in part of speech, the experiment tested the influence of other potentially important factors: words differ in their morphological structure – some words contain a morphological boundary and some do not, and in different sentences target words are positioned differently in relation to prosodic boundaries. Overall the experiment contained 64 sentences and each speaker repeated each sentence 5 times.

The paper demonstrates that the part of speech significantly affects the duration of the first sound of the word and also the duration of the vowel that follows the initial cluster. Part of speech serves as one of the predictors in the ANOVA model in combination with other predictors: subject, prosodic domain, presence of a morphological boundary, part of speech and word frequency. The fact that we are able to find phonetic difference between nouns and verbs indicates that this distinction is not purely theoretical and that native speakers of a language also have direct access to this information in the phonetic form of a word.

This paper provides evidence that the semantically driven parts of speech distinction affects phonetic duration of sounds. We see that noun and verb super-schemas proposed by Langacker may be extracted from phonetic information. When we hear the onset sibilant of one of these Russian words we can already guess whether it will be a noun or a verb.

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Alternativity in Basic Communicative Spaces Network: the adversative *taysin* construction in Korean

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This paper aims to explore the *taysin* construction (Clause_A *taysin* Clause_B) in Korean that can convey non-substitutive semantics (A *taysin* B; 'B in reward for A,' 'B although A') as well as substitutive semantics (A *taysin* B, 'B instead of A'; only B holds). I show that the *taysin* construction conveys multiple functions which are construed at content, epistemic, and speech-act levels (Sweetser 1990), as exemplified in (1)-(3) from the 21st Sejong Corpus, and model the conceptual structures within the framework of Basic Communicative Spaces Network (BCSN) (Sanders et al. 2012).

- (1) *aki-pyeng-ul* *ongali-lo* *al-lye-nun* *taysin*
 baby-illness-Acc babbling-Instr know-Desid-Rltvzr TAYSIN
elkwul-ul *salphi-seyyo*
 face-Acc look.carefully-Hon.Indic.ending
 'Examine at the baby's face carefully, instead of trying to figure out his or her illness from his or her babbling.' (<http://kimgilwoo.tistory.com/m/post/view/id/1082>)
- (2) *twupo-nun* *atul-eykey* *caysan-ul* *mwul-li-ecwu-nun* *taysin*
 Twupo-Top son-Dat fortune-Acc inherit-Caus-Aux.bene TAYSIN
atul-i *casin-eykey* *pokcongha-tolok* *ha-ess-ta*
 son-Nom himself-Dat obey-Caus do-Ant-Decl
 'Twupo made his son obey him in return for leaving him his fortune.' (21st Century Sejong corpus)
- (3) *ku* *cen-ey* *mos-po-nun* *taysin*
 that before-Loc not.able.to-see-Rltvzr TAYSIN
chwusek *cal* *ponay-e*
 Thanksgiving well pass-Indic
 'Have a great Thanksgiving, although I won't be able to see you before that.'

In (1), the addressee is not directed to do both the events, trying to figure out the baby's illness from her babbling and examining at the baby's face carefully, but it is likely to be the case in which the addressee will do only the latter (content). The utterance in (2), however, does not have to convey the substitutive reading; it can indicate that the event of the first conjunct refers to the event that the speaker knows has happened for sure (epistemic). In (3), the situation encoded by the utterance of speech-act offsetting contrast is paraphrased as, "(I'd like to tell you) Have a great Thanksgiving (as a compensation for my excuse that) I won't be able to see you before that." The finding that the substitutive *taysin* construction deals directly in alternativity at the content level (e.g., in (1)) is specifically intriguing because it means some adversative construction does evoke contrast in the content domain, whose construal is allegedly epistemic (Sweetser 1990:103).

I argue that cognitive motivation underlying the versatility is that two conjuncts must be construed as forming a contrast which offsets each other and that it is crucial to understand that the adversativity is subject to the cognizer's construal. This paper backs the claim by looking further into backgrounded informational status of the first conjunct (e.g., the first conjuncts in (1)-(3); information of them has been expected or backgrounded in given contexts) and semantic incompatibility between its substitutive reading and negativized state of affairs in the first conjunct (e.g., if the first conjunct with the negativizer *-cianh-* in (2), the *taysin* construction would only convey the non-substitutive reading). To better grasp conceptual structures of the *taysin* construction, I model its multiple meanings by means of alternative spaces within Basic Communicative Spaces Network (Sanders et al. 2012); in which domain the alternativity is construed distinguishes its construal of the content domain from that of the non-content domain.

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Computational interfaces between constructions and frames: modeling Construction-to-Construction and Construction-to-Frame relations in FrameNet Brasil

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Constructions and frames are two of the most important theoretical milestones of Cognitive Linguistics, and the relations between them have long been the focus of countless works in the field. Since both constructions and frames are conceived of as cognitive constructs taking part in relational networks, inheritance relations structuring such networks, as well as evoking relations between constructions and frames have been proposed following different approaches (Bergen & Chang 2005; Fillmore 2013; Goldberg 1995; 2006; 2010; Kay & Fillmore 1999). In the domain of Computational Linguistics, frames and constructions have been, since 1997, the analytical object of FrameNet and its sister projects, including FrameNet Brasil, which is building, in parallel with the network of frames defined for Brazilian Portuguese, a repertoire of constructions, the BP Constructicon. In this resource, each construction is defined in terms of its constituent parts, the Construct Elements (CEs) (Fillmore, Lee-Goldman & Rhomieux 2012). Such an approach parallels that used for frames in FrameNet, defined in terms of their frame elements (FEs). This work aims to investigate semantic relations between frames, between constructions and between frames and constructions, both in linguistic and computational terms. Our goal is to discuss and, if necessary, revise the relations already described in FrameNet and propose more refined descriptions to solve the issue of motivation between constructions. So far, two relations, already suggested in the original Berkeley Constructicon have been modeled in the FrameNet Brasil database:

- Inherits: a construction-to-construction in which every CE in the mother construction must correspond to an equally or more specific CE in the daughter construction
- Evokes: a construction-to-frame relation in which a CE may correspond to one or more FEs in the frame evoked by the construction, if it evokes a frame.

In this work, we discuss the need for positing and modeling additional construction-to-construction and construction-to-frame relations in the FrameNet Brasil database. The discussion revolves around the question of whether it is possible to parallel the inheritance relations observed between constructions with the frame-to-frame relations proposed by FrameNet. If the Maximized Motivation Principle proposed by Goldberg (1995) is correct, then the answer to this question would be positive, since, according to this principle, if a construction relates to another syntactically, so these constructions are also semantically related, so that the motivation is maximized.

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Deriving constructions bottom-up: a case for lexically bound mini-constructions

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In Goldbergian Construction Grammar (CxG), phrasal verb-independent Argument Structure Constructions (ASCs) take center stage. These ASCs account for novel uses of verbs and CxG thereby elegantly dispenses with implausible verb senses, and even keeps the number of verb senses to a minimum, often positing single lexical entries. This view of language representation emphasizes the importance of generalizations, while item-specific knowledge is largely downplayed. It has however been shown that such generalizations (1) fail to predict the difference in syntactic patterning of semantically related verbs (e.g. Iwata, 2008), and (2) cannot always account for the intended semantic interpretation (e.g. Boas, 2008). Boas (2003) therefore posits mini-constructions, which are lexically bound verb-specific constructions that account for the idiosyncratic syntactic behavior and semantic interpretation of verbs. To establish such mini-constructions, Boas calls for a fine-grained bottom-up identification of all the argument realization patterns of a verb according to the verb's different senses. Such an approach would "[result] in a much more detailed lexicon in which verbs are associated with a number of conventionalized senses, each of which forms its own mini-construction that is a pairing of a form with a meaning" (2003: 37).

Against this backdrop, this study takes a step forward in answering this call by adopting a corpus-based bottom-up approach to the formal and semantic patterning of the high-frequency verb *make*. High-frequency verbs represent an interesting case as on the one hand they are considered pathbreaking verbs for particular ASCs (Goldberg, 2006), while on the other they enter a wide range of syntactic configurations. This study analyzes all 1,975 occurrences of *make* in the one million-word British component of the International Corpus of English. In a first step, each occurrence is assigned a broad ASC. In a second step, the patterning of each occurrence is analyzed from a lexical verb-based perspective, largely drawing on Hanks' lexically based methodology of Corpus Pattern Analysis (Hanks, 2013): form is annotated by assigning a valency structure to each instance, while meaning is annotated by assigning a semantic value to each valency-slot and an overall meaning to the pattern. This makes it possible to arrive at verb-specific form-meaning mappings, i.e. mini-constructions, bottom-up. Subsequently, it is possible to flesh out each ASC for mini-constructions that have narrower and verb-specific meanings, but that still inherit features from the ASC. Preliminary results suggest that (1) from a verb-based perspective, rather than being reduced to single lexical entries, verbs display rich patterns of polysemy that are needed to account for their syntactic patterning and (2) from a construction-based perspective, ASCs have lexically-bound patterns of polysemy with narrower meanings. This study hereby hopes to make a case for lexically-bound mini-constructions and, by extension, for the recognition of the importance of item-specificity alongside verb-independent generalizations.

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Investigating distance iconicity in alienability marking: an artificial language learning study

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Grammatical iconicity refers to a situation where grammatical structures are to a certain extent shaped by speakers' perception of reality. In distance iconicity, a subtype of grammatical iconicity, the distance between linguistic items reflects the conceptual distance between chunks of reality (Haiman 1985). In case of alienability marking, inalienable possessa are understood as conceptually closer to possessors and their mutual linguistic closeness in the expression of adnominal possession (e.g. simple juxtaposition v. prepositional phrase) has been interpreted as a diagram of such conceptualization (Chappell & McGregor 1989). Iconicity has drawn attention of many linguists, being implicated as a potentially important factor in various processing situations, such as learning and acquisition, language contact, and language impairment. While there is a growing body of experimental research supporting the view that nonarbitrary expressions enhance processing in the field of sound symbolism (e.g. Imai et al. 2008), such studies are only rare in studies on grammatical iconicity.

This paper explores the possibilities of using the artificial language learning (ALL) paradigm, a well established psycholinguistic experimental method, in the study of distance iconicity. In a typical ALL design, two or more versions of an artificial grammar are created, participants learn the respective grammars and differences are observed via a variety of test methods (Culbertson 2012). To test possible influences of distance iconicity on the acquisition of alienability marking, a simple between-subjects ALL experiment was designed. Two variants of a miniature artificial language were created with distance-iconic and counter-iconic coding of alienability in adnominal possession, as shown in (1).

1) iconic (a) and counter-iconic (b) grammar in the experiment:

a) *nuli-s* 'his baby' (lit. baby-he) v. *tite ta-ha* 'his watch' (lit. watch of-he)

b) *nuli ta-ha* 'his baby' (lit. baby of-he) v. *tite-s* 'his watch' (lit. watch-he)

Participants (n = 40) were randomly assigned to one of the grammars and production competence of both groups was tested after two learning sessions. Participants were asked to apply the acquired rule to a subset of lexical items that were held out during the grammar training. The groups were compared with respect to scores and reaction times.

Although the groups did not differ significantly in test scores, the results show that learners of iconic grammar performed significantly better in terms of reaction time. This suggests that an association between linguistic structure and perceived reality has a positive influence on learnability of grammar. This pilot study shows that ALL experiments may be extended beyond the standard parsing and word order studies and provide a new way to test some of our assumptions about the relationship between language and reality. The results encourage further research to support the findings of this study.

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I SEE What You Mean: Visual Conceptualization in Spoken and Signed Language Interpreters

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Daniel Gile's Effort Model of interpreting (1995) suggests that interpreters working simultaneously must manage their limited cognitive resources efficiently, with attention being given to several 'efforts': Listening and Analysis, Memory, Production, and Coordination of Efforts. During Listening and Analysis, interpreters use the incoming source language form as a mechanism for identifying the semantic and pragmatic goals of a speaker/signer. They actively listen to the source language content and attempt to identify speech act type, discourse goal (comparison, conditional, temporal clauses, description of a scene), etc. However, little work has been carried out on how interpreters conceptualize the scenes and actions that they describe in their target language, or how they determine what was intended by the source speaker/signer, even though such decisions have significant consequences for the target language audience. Pointurier-Pournin (2014) suggests that the visual conceptualization requirement is higher for signed language interpreters than for spoken language interpreters because signed languages are expressed in a visual-gestural mode, contributing to an increase demand in cognitive effort for signed language interpreters during the Listening and Analysis phase. However, we contend that this hypothesis doesn't hold, and that it overlooks findings in the field of cognitive linguistics around this topic (e.g., Croft and Cruse (2004), and papers in Nuyts and Pederson (1997) and Geeraerts (2006)).

Our hypothesis is that the modality of the language – spoken or signed – does not make a difference in terms of visual conceptualisation of content, but that an embodied visual conceptualization component is a universal cognitive capacity inherent to human experience. However, we anticipate that because there are differences in terms of how events are encoded linguistically, that there may be some consequences of this in shaping the interpreter's visual concept (e.g., there may be 'gapped' portions of some visualizations, aka Talmy's (1996) discussion of "windowing of attention" in language) We also hypothesise that interpreters leverage the co-speech gestures used by source language speakers who describe a physical environment or the physical characteristics of persons and objects with whom they engage, and co-opt these into their target language texts.

We ask 12 interpreters to interpret a set of video-recorded texts from English into Irish Sign Language (2), ASL (4), French (4), and Spanish (2). The source texts are highly descriptive, and as is regularly the case, speakers use a great deal of gesture. All interpretations are video-recorded. We then use a Think Aloud Protocol (TAP) in which we view the recorded interpretation with the interpreter, asking each to describe how they visualized the scene and how it informed their target text. We conclude that, counter to Pointurier-Pournin (2014), the visual nature of signed languages neither leads to an advantage for signed language interpreters in terms of their ability to reconstruct and use an active visualization of a scene/activity, nor does their conceptual processing exceed that for spoken language interpreters. All in all, we demonstrate that visualization as a cognitive process during spoken and signed language interpreting is not significantly affected by language modality.

Light verbs: event modulation or verb classification?

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This paper deals with the grammatical status of so-called “light verbs” in Odia, an Indo-Aryan language, extending an earlier analysis (Lemmens & Sahoo, *forthc.*). These light verbs combine with a main lexical verb to build asymmetric complex predicates, e.g. *khaai-delaa* /eat-gave/ ‘ate it up’, *bhaangi-galaa* /break-went/ ‘got broken’, etc. As in related languages (such as Urdu/Hindi), they are drawn from a limited set of verbs which are, strikingly, form-identical with full lexical verbs. The Odia light verbs can be classified as follows:

- (1) MOTION verbs: *-jaa* ‘go’, *-paD* ‘fall’, *-pakaa* ‘drop’, *-chaal* ‘walk’, *-uTh* ‘rise’, *-aas* ‘come’
- (2) STATIVE verbs: *-bas* ‘sit’, *-rah* ‘stay’
- (3) TRANSFER verbs: *-de* ‘give’, *-ne* ‘take’
- (4) FINISH verbs: *-saar* ‘finish’

Following the general tenets of Construction Grammar (cf. Goldberg 2006), we have considered these light verbs as forming a network of form-meaning pairs. At the highest level, the schema takes the form *V-i-v* (*-i-* being the conjunctive particle) and its semantics centers around what Butt & Geuder (2001) have aptly called “event modulation”. In other words, in contrast to the single verb construction, the light verb adds an important perspective to the event expressed by the main lexical verb with which it combines. This modulation is different for the different verb-specific schemas which each have their own specific semantico-syntactic properties. Summarizing, these can be represented as follows:

- (1) COMPLETION & UNEXPECTEDNESS: *-jaa* ‘go’, *-paD* ‘fall’ (intr.); *-pakaa* ‘drop’, *-de* ‘give’ (tr)
- (2) COMPLETION & SELF-BENEFICIARY: *-ne* ‘take’ (trans.)
- (3) COMPLETION: *-saar* ‘finish’ (intr./trans.)
- (4) PRE-ONSET: *-aas* ‘come’ (intr.)
- (5) ONSET: *-uTh* ‘rise’ (intr.)
- (6) CONTINUATION: *-chaal* ‘walk’ (trans.), *-rah* ‘stay’ (intr.), *-bas* ‘sit’ (trans.)

For example, combinations such as ‘break-go’, ‘eat-give’ or ‘sleep-fall’ express the **completion** of the event as well as that it was **unexpected** or **unsupposed** to have happened (mirativity), but differ as to the degree of unexpectedness that they express (which can be related to their transitivity differences) as well in their frequency. The light verb *-ne* ‘take’ similarly expresses **completion** (but not unexpectedness) and implies that the event is **self-beneficiary**. The combinations with ‘-walk’ or ‘-rise’ shift the focus to the **onset** of the event and its (possible) continuation. The light verbs are further distinguished through their combination with transitive or intransitive verbs.

In line with Traugott and Dasher (2002), our usage-based account sees these specific semantic characteristics as resulting from the entrenchment of contextual features, similar to what Croft (2000:126ff) has termed *hypoanalysis*, where “a contextual semantic/functional property [is reanalysed] as an inherent property of the syntactic unit”. Moreover, the mirativity reading of the most frequent verbs *-jaa* ‘go’ and *-de* ‘give’ can be related to the larger cultural importance that is given to doing what one is supposed to do. Based on verb classifier systems in Australian languages, McGregor (2005) suggests that such light verbs can best be seen as a system of verb superclassification. While his proposal is on many points quite compatible with the constructional account presented here, as we will show, there are some important problems when it comes to Odia light verbs, for which a constructional account seems more appropriate.

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Benefit of iconic gestures in second language acquisition: Differential effects on parts of speech

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During the acquisition of a second language, the learning of vocabulary words appears to be improved when iconic gestures are paired with the new words (Allen 1995, Kelly, McDevitt, & Esch, 2009, Tellier, 2008). However, there is little in literature suggesting a differential benefit for the use of gestures based on the part of speech of the word. The purpose of this study is to replicate the benefit of using iconic gestures by varying the initial exposure and study conditions for learning the words, as well as to address whether adjectives, nouns, and verbs equally benefit by using the congruent iconic gestures on a follow-up assessment one week after initial exposure to the word-gesture pairs.

One hundred and sixteen students enrolled in several sections of Introductory Spanish and Comprehensive Beginning Spanish served as participants for this study. Each section was given a different study condition (i.e., no gesture control; new word with a congruent gesture; new word with a mismatched iconic gesture; or new word with a congruent gesture and instructions to use the gestures during later study) while learning 30 new vocabulary items. Of the 30 vocabulary items, 10 were nouns, 10 were adjectives and 10 were verbs; the words were selected from the vocabulary list pertaining to the chapter being studied. All vocabulary was presented in a counterbalanced order to the participating groups. Each group was given two rounds of word learning before being given a cued-recall quiz of 15 words immediately following the treatment. A subsequent cued-recall quiz of the addition 15 words was given 30 minutes after the treatment one week later.

Results of a repeated measures ANOVA indicate an interaction between study condition and word type. Specifically, the participants given congruent gestures *and* also instructed to use the gestures during studying demonstrate significantly superior performance to all other groups for adjectives and nouns, but no group differences are noted for verbs ($F(6, 112) = 4.05, p = .001$). It appears that the use of congruent iconic gestures is beneficial for improved recall of words if they are nouns or adjectives, but not if they are verbs.

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Defining paradigms and metaphorical models: the case of POLITICS in British discourse

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In her analysis of corporate discourse, Koller (2009, 116) argues that metaphor selection in her corpus is influenced by “a paradigm shift” from religion to politics to business as the main conceptual schema relied on by Western society. Her data eventually suggest a multi-directional relation between the three domains, thereby extending her original definition of society paradigms. In this paper, I propose to test this concept of defining paradigms in the analysis of the domain of POLITICS and of its discursive representations in Britain after 1945. I hypothesize that a detailed look at metaphor choice can accurately account for the evolution of the representation of POLITICS, and uncover strategies of speaker-representation in British discourse after WW2.

I present a **cognitive corpus-based analysis** (L'Hôte 2014) of an original collection of speeches and texts of about 1,000,000 words, produced by the Labour Party and the Conservative Party from 1945 to 2013. Through a combination of quantitative and qualitative analyses performed with the online software WMatrix (Rayson 2009), three main categories of political metaphors are identified in the data (Pragglejaz 2007), in which POLITICS is understood in terms of ENTITIES, SPACE, and HUMAN ACTIVITIES. While the source domain of ENTITIES occurs with relatively stable frequency throughout our data, spatial metaphors are more prominent in present-day British discourse; human-activity metaphors on the other hand, are significantly more frequent before 1994. The study of the discursive functions of these three groups of metaphors in context points to a movement towards a more neutral, non-threatening representation of POLITICS, which becomes an object of redefinition in present-day British discourse. As a consequence, the use of the more antagonistic human-activity metaphors is reduced. The growing importance of ethical discourse in contemporary British politics is also uncovered, as a non-metaphorical counterpart for human-activity metaphors of politics.

In conclusion, I suggest that a model understood in terms of Shore's “foundational schemas” (1996) can describe the evolution of the representations of politics in British discourse more accurately than Koller's defining paradigms.

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A corpus-based study of subjectification of the BA-GE-construction in modern Mandarin

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The modern Mandarin construction X BA N V (henceforth, the BA-construction) has been discussed from different perspectives. It is commonly acknowledged that BA is an accessibility marker indicating the complete affectedness of the discourse entity (Sun 1996). In Old Chinese, BA was a lexical verb meaning 'to hold' as in (1) and it has subsequently grammaticalized into a preposition-like accessibility marker in Modern Mandarin as illustrated in (2), where it profiles the complete affectedness of the Patient.

(1) zuoshou ba qi xiu
left hand BA his sleeve

'The left hand holds his sleeve.'

(2) ta ba pingguo chi-le
3rd BA apple eat-PERF

'He ate the apple.' (*He ate an apple.)

Although in Chinese a bare noun like *pingguo* ('apple') in (2) can be definite or indefinite, the indefinite reading of the nominal after BA is not readily available because it would be atypical to speak of the complete affectedness of an indefinite entity.

Some linguists (Wang 1947, Shen 2002) have observed that the schematic characterization of BA-construction is disposal, which is onstage in line with subjectivity (Langacker 2006). In many cases, the specific reading of NP is realized by a numeral-classifier *yi ge* ('one'), but the numeral *yi* is often omitted and only the classifier *ge* remains. *Ge* is highly grammaticalised marker that has developed from a classifier to a modal particle, where its role of categorizing specification has been bleached and that of unidentification extended (Zhang 2005). In other words, single *ge* is either the abbreviation of *yi ge* or it functions as a grammaticalised marker which loosens the constraint that *ba* generally implies with respect to the definite interpretation of the NP. Our corpus-based study confirms that the modal particle *ge* occurs in 74% of the compiled sample where the following NPs are mostly unidentifiable and can never be affected completely, as in (3):

(3) ruci wangfu ba ge dahao heshan gaode zhiliposui
such back and forth BA GE grand river mountain do- broken
DE

'Such contradictory activities unsettled the great country.'

In this way, the speaker's modality with respect to the discourse event is increased. Disposal by the onstage, objectively construed grammatical subject gives way to modality on the part of the offstage, subjectively construed conceptualizer. In short, BA-GE-construction underwent subjectification.

To test the analysis, we did a collexeme analysis of both BA-construction and BA-GE construction from the Corpus of Chinese Linguistics (CCL), investigating the difference of verbs that each construction prefers. Then we did a synchronic study on the syntactic realizations of both BA-construction and BA-GE-construction, investigating each sentence with respect to 28 semantic and syntactic variables. The results show that among 17 variables computed to be significantly different when distributed in both constructions, 10 variables favor the BA-GE-construction (e.g., Subject Xs referring to events or literal Vs with polysemous verbs), and 7 variables favor the BA-construction (e.g., Subject Xs with first-person pronouns or Vs referring to concrete actions) with an analysis on how these variables are linked with preposition or speaker's modality in utterances. This provides evidence that the BA-GE-construction does not emphasize on 'disposal' anymore and it is used to express the speaker's modality on the discourse event.

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The Effects of Smart Mobilephone Use Experience on English and Chinese Speakers' Time Cognition

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Much of the information people use to construct the world is metaphorical. Across cultures, people employ space to construct representations of time. For English speakers, they rarely resort to vertical spatial axis to express time because there is a scarcity of vertical spatial time metaphor in English. For Chinese speakers, they tend to associate past with left and future with right because of the left-to-right orthography. Recently, research has shown that people's interactions with cultural artefacts may also influence their representations of time (Duffy 2014). Among different cultural artefacts for recording time, the smart mobilephone use may provide a new testbed for investigating whether people's interactions with digital cultural artefacts shape embodiment and metaphorical thought.

In the present study, two experiments were conducted to explore the effects of smart mobilephone use experience on English and Chinese speakers' time cognition. Experiment 1 was a temporal diagram forced-choice task (Casasanto 2009) in which participants saw a cartoon character and two square boxes (one above and one below the character), and were asked to place words associate with past and future into the top or the bottom box of their own will. The results showed that English speakers with smart mobilephones experience prefer to put "past" up and "future" down although there is no vertical time spatial metaphor in English. However, participants without smart mobilephones experience put "past" and "future" in space without any pattern.

Experiment 2 was also a temporal diagram forced-choice task in which participants saw a cartoon character and two square boxes (one left and one right the character), and were asked to place words corresponded to past and future events respectively into the left or the right box of their own will. The results showed that Chinese speakers without smart mobilephones experience prefer to put "past" in left and "future" in right space. However, Chinese speakers with smart mobilephones experience put "past" and "future" either in left or right space without preference.

With the advent of new interactive technologies, one possible solution is to turn our focus to the role that emerging cultural artefacts play in creating wider cognitive and computational webs (Gibbs 1999). Although there is few vertical time-spatial metaphor in English, English speakers with smart mobilephones experience can still form "PAST/DOWN, FUTURE/UP" metaphor. Influenced by writing and reading direction, Chinese speakers tend to conceptualize the future as left and the past as right. However, with the increase using experience of smart mobilephones, they can also form "LEFT/FUTURE, RIGHT/PAST" metaphor. The results suggest that the interaction with smart mobilephones constitutes an important source of perceptuo-motor experiences which may be used to ground conceptual domains such as time.

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Typology for Chinese: A Corpus-based Study on Serial Verb Construction³

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Cognitive typology starts from investigation on motion event expression (L. Talmy, 2000), which is incarnated by serial verb construction (SVC in short) in Mandarin Chinese. This study focuses on diachronic statistical analysis on SVC, in order to explore the historical origin for the typological characteristic of modern Chinese.

Previous synchronic studies have claimed an equipollently-framed characteristic for modern Chinese (L. Chen 2005; L. Chen & Guo 2009), and this leaves diachronic domain as the research gap. To be specific, this gap entails such research questions: I. What is the historical origin for equipollently-framed characteristic of modern Chinese? II. What is the refinement of detailed typological characteristics for ancient Chinese within each developmental period, since ancient Chinese evolves through different historical stages (袁行霈, 1999)? The first question leads to further two detailed ones, which are the way to express motion event in ancient Chinese as well as the pragmatic model of that expression. Those would be the research questions for this study to address.

In order to investigate these questions, this study collects data on motion event expression and builds up a small-scaled corpus. This corpus is constituted from texts of the most representative genres within the last stage of Chinese evolution, as well as translated modern versions of those texts. The segmentation software of Institute of Computing Technology, Chinese Lexical Analysis System (ICTCLAS for short) is used to label and to classify motion event expressions within those texts. This classification displays that it is totally different for ancient Chinese and modern Chinese to choose between single verbs and SVC for motion event expression, a result that has been summarized into the forms of table and figure in this study.

It is discovered that while modern Chinese uses SVC as the main method to express motion event, its ancient counterpart adopts single motion verbs more frequently for the same purpose. What's more, it is calculated that manner verb goes roughly equal of the percentage with path verb on pragmatic usage for ancient Chinese, and this indicates the equal morphosyntactic status for single motion verbs in ancient Chinese within its last evolutionary stage. The equal morphosyntactic status of manner verb and path verb determines the equipollently-framed characteristic for this ancient language, a characteristic once inherited further, would result in the equipollently-framed typology for modern Chinese.

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Metaphors of Language.

The Role of Primary Metaphors and Image Schemata in Metalinguistic Discourse.

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Some thirty years ago, Michael Reddy successfully introduced the “Conduit Metaphor” in Linguistics (Reddy 1979). For quite a long time, it was considered and treated as one of the best established conceptual metaphors. By the late 1990s, extending on Reddy, Joseph Grady proposed the decomposition of that complex metaphor into primary metaphors (Grady 1998). The aim of my paper is to reassess Grady's conclusions by presenting an image schema that contributes to organize our perception of communication and language to a great deal.

There are two major points in my paper. First, investigating a corpus of Latin, French and German texts from 18th century, I aim at examining Grady's suggestions in a diachronic perspective. Some of the primary metaphors introduced by Grady such as CONSTITUENTS ARE CONTENTS, BECOMING ACCESSIBLE IS EMERGING or TRANSMISSION OF ENERGY IS TRANSFER appear frequently in the corpus and hint at the longue durée of metaphoric structuring. Those metaphors are not only used to conceptualize communication as one aspect of language. They also serve to conceive of other topics in the discourse on language, such as the origin of language or language change.

Second, my paper argues for a central role of the Source-Path-Goal schema in the structuring of metalinguistic discourse. The fictive motion along a path, identified as the Source-Path-Goal schema, is among the most frequently employed metaphors in the corpus. Notably, it serves to conceptualize a wide range of topics in metalinguistic discourse, including communication. Moreover, the cross-linguistic survey suggests ethnolinguistic differences in the use and frequency of the image schema.

Therefore, I will discuss to what degree the image schema has an impact on the structuring of language and finally raise the question to what extent the findings of my historical corpus data might be transferred to the present language use.

Data

Dissertation qui a remporté le prix proposé par l'Académie Royale des Sciences et Belles Lettres de Prusse, sur l'influence réciproque du langage sur les opinions et des opinions sur le langage, avec les pieces qui ont concuru, ed. by Ewald Friedrich von Hertzberg, Berlin: Haude & Spener 1760.

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Naming of Time Words Affects Temporal Reasoning Strategy and Performance

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Time concepts are named differently across the world's languages. In English, the names for days of the week and months of the year are opaque—to people learning and using English, there's no obvious reason why Friday or September have the names they do. But in other languages, like Chinese, time concepts have numerically transparent names—the days of the week and months of the year are named using sequential numbers (Monday is “weekday one”, January is “month one”, etc.).

Previous studies have shown that such differences in numerical transparency of calendaric terms across languages affect the age at which children acquire time concepts and the kinds of cognitive mechanisms they use to reason about time (Liu, 2010; Liu&Shin, in press). But do different developmental trajectories caused by differences in the naming of time concepts have lingering effects on adults? On the one hand, adults in many cultures make use of similarly formatted calendars when performing time-related calculations. If, as Friedman (1990) argues, adults perform time calculations using mental images of calendars, and calendars are similar across cultures, then cross-linguistic differences based on naming system differences might dissipate in adulthood. On the other hand, it could be that the developmental origin of time concepts affects subsequent time calculations, throughout the lifespan.

In this study, we investigated whether having opaque versus mathematically transparent time concepts affects how people reason about time. A behavioral experiment was designed to test whether Chinese- and English-speaking adults' time calculation abilities and the online strategies they employ while performing temporal reasoning are influenced by their language's time naming system. Results show that Chinese speakers are more likely to spontaneously employ arithmetic when doing temporal calculations, which in turn improves the speed and accuracy of time calculations. English speakers appear to use other strategies, such as sequential recitation, which may lead to slower responses.

Previous cross-linguistic studies have shown that there is at least some causal influence from language to non-verbal cognition and unconscious habitual thought (Kay & Kempton, 1984; Lucy, 1992; Gumperz & Levinson, 1996, etc.). More specifically, the way time is described in a language can affect its speakers' conceptualization of time (Boroditsky, 2001) and can even shape low-level mental processes in psychophysical tasks (Casasanto & Boroditsky, 2008). The transparent numerical structure of the Chinese calendar facilitates calendar calculation, causing Chinese-speaking adults to outperform their English-speaking counterparts in time calculation tasks by exhibiting shorter reaction times and making fewer errors. In general, such a finding supports the hypothesis that linguistic differences can produce non-linguistic consequences, in this case in affecting people's reasoning about time (Boroditsky & Ramscar, 2002, Matlock et al., 2005; Núñez and Sweetser, 2006; Casasanto & Boroditsky, 2008).

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On the correlation of speech rate and word frequency

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The frequency of a word or string in a language has often been evoked as a determining factor in processes of both language production and processing. Highly frequent items are more readily reduced (e.g. Keune et al. 2005), their internal structure is less easily perceived (Sosa & MacFarlane 2002), and they are generally more predictable (Fosler-Lussier & Morgan 1999). Moreover, high-frequency sequences processed more quickly (Snider & Arnon 2012) and produced with shorter durations (Arnon & Cohen Priva 2013).

Similarly, speech rate is known to have an impact on speech production, such that rapid speech leads to more reduction (Jurafsky et al. 1998) and may also be perceived as more reduced (Lorenz 2012). It seems likely, then, that rapid speech is a potential source of processing difficulties in communication. Such difficulties could be avoided or mitigated by employing linguistic material that is easily retrieved and processed quickly. The hypothesis following from this is that in naturally occurring speech, speakers revert to more frequent words when they speak faster.

The present study is a first attempt to test this hypothesis, based on conversational speech data from the Santa Barbara Corpus of Spoken American English (SBC; DuBois et al. 2000-2005). It investigates predicative adjectives – these have been chosen because they show a great deal of variation (e.g. the near-synonymous *great*, *awesome*, *excellent*, etc.), tend to occur at the end of a phrase and are usually not immediately repeated (to avoid priming effects).

Speech rate is here operationalized as the rate (syllables per second) in an intonation unit relative to the speaker's base line (their overall mean speech rate in the entire conversation). To avoid circularity from the fact that frequent items are also produced faster, the predicative adjective itself has been excluded from the speech rate measure.

The frequency of each adjective has been extracted from the Corpus of Contemporary American English (Davies 2008-), assuming that this very large corpus indicates the frequency of an item in the language at large.

Results show that while high-frequency adjectives are not themselves produced more rapidly than others, there is a significant correlation between speech rate and the frequency of the predicative adjective, such that more frequent adjectives tend to be used in environments of faster speech. This frequency effect interacts with a recency effect on words which are repeated from prior discourse. This suggests that when speakers talk at a fast rate, using high-frequency words is one way of mitigating the potential difficulties posed by rapid speech, repeating recent ones is another. Both can be explained by ease of retrievability and processing.

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A Construction Grammar Account of [V ge N] Related to the Omission of Numeral Yi 'One' in Chinese NP

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Ge is widely considered as a general classifier in Mandarin Chinese (Li, 1957; Li & Thomson, 1981) which is normally located between a numeral and a noun. In a post-verbal position, when the numeral before *ge* is *yi* 'one', the numeral tends to be omitted and *ge* is found to be used in some unusual position, for example, to be inserted in compound verbs (1) or between a verb and an adjective (2).

(1) verb + *ge* + noun (collocational object of verb) *li ge fa* have a haircut

(2) verb + *ge* + adjective *chi ge bao* eat till full

The above pattern can be generalized as [V *ge* X], and *ge* in this pattern has attracted much attention in Chinese linguistic research (Zhang, 2003; Lü, 1984; Biq, 2004). Most of the research focuses on the properties of *ge*, but the discussion about the influence of the omission of numeral *yi* 'one' on the development of [V *ge* X] construction is limited.

The main task of this research is to give an account for the omission of numeral *yi* 'one' in post-verbal NP and to argue that this phenomenon leads to the emergence of a construction [V *ge* N], a micro-construction of [V *ge* X], with a telic aspectual meaning. This research mainly uses the corpus data from CCL (Centre for Chinese Linguistics PKU) dated from 4th Century BC to 10th Century AD. This diachronic study demonstrates that the appearance of omission of numeral *yi* 'one' in post-verbal NP starts the host class expansion of *ge* and then leads to the constructionalization of [V *ge* N], by forming a FORM_{new}—MEANING_{new} pair. Within the framework of Sign-Based Construction Grammar (SBCG) (Sag, 2012), [V *ge* N] construction is configured by matching feature structures of the three signs. Due to the omission of numeral *yi* 'one', feature structures of the three signs change accordingly and these changes lead to the acquisition of a telic and bounded reading of the [V *ge* N] construction. When the numeral *yi* 'one' is present, there are constraints on the sign following *ge*; by contrast, when the numeral is absent, some semantic features of *ge* are bleached and therefore the constraints on the following sign are largely removed. Consequently, the elements following *ge* are not restricted to certain categories of countable nouns and the host class of *ge* expands. The expansion further enables the aspectual meaning of [V *ge* N].

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ON metaphors in Irish English

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Much has been made of phonological, lexical, syntactic, and pragmatic aspects of Irish English, but one area that has yet to receive a full treatment is the prepositional area. The most robust treatment of Irish English prepositions comes from Filppula (1999) where he discusses 'nonstandard' uses of *in*, *on*, *of*, and *with*, while pointing towards a fuller mapping of the prepositional area. No monograph concerning Irish English would be complete without discussing this phenomenon, but a full treatment is still outstanding (see, *inter alia*, Hickey 2007, Kallen 2013).

The current study views Irish English from a bottom-up perspective. The large-scale project from which this paper is derived was a Cognitive Sociolinguistic study of how people actually talk about space. Using spoken and written data from 20 speakers collected for the broad spatial language study, our particular focus for this paper is ON metaphors in three areas: 1. in locative metaphors (PERMANENT STRUCTURES ARE IN A ROAD, TEMPORARY STRUCTURES ARE ON A ROAD); 2. in media metaphors (NEWSPAPERS ARE COLLECTIONS OF ARTICLES and NEWSPAPERS ARE SURFACES FOR ARTICLES); and 3. in professional metaphors (WORK IN AN INTERACTIONAL JOB, WORK ON A MACHINE and BEGIN WORK IN AN INTERACTIONAL JOB, CONTINUE TO WORK AT AN INTERACTIONAL JOB). These represent expected variation with unexpected groupings (location and media metaphors), and unexpected variation (professional metaphors). We take our analytic cues from Conceptual Metaphor Theory and its applications (Lakoff and Johnson 1999, 2003, Lakoff 1996), which provide for disagreement in conceptualisation in the form of competing metaphors occupying the same conceptual space and Kövecses (2004, 2007) which provides the blueprint for cultural variation of conceptual metaphors.

We will demonstrate that the following types of variation within these data exists: age- and gender-based variation in the locative metaphors; age- and place of birth-based variation in the media metaphors; and industry-specific variation in the professional metaphors. Through careful analysis we will show: 1. when our speakers agree in these three areas; 2. which speakers show deviation from the expected forms in these areas; and 3. what this variation says about Irish English and about Conceptual Metaphor Theory. This leads to a general discussion of how Cognitive Sociolinguistics can be used to extend Conceptual Metaphor Theory further down the cultural variation road.

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A Cross-linguistic Study of Caused Motion Constructions: some typological issues— A corpus-based approach

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Abstract: The domain of space, which constitutes the basic and pervasive human experience, has aroused many interesting topics. On the one hand, spatial understanding by human beings is said to be universal. On the other hand, languages encoding spatial expressions show striking differences. This paradox has raised some fundamental questions. Previous studies (Talmy, 1991, 2000; Slobin, 2003, 2004) on language typology have identified two or three types of languages based on the lexicalization patterns of manner and path information.

Led by construction grammar and based on a corpus investigation, the present study focuses on a contrastive study of caused motion constructions in six languages. In three Indo-European languages, we find that English has a professional VOL construction for direct and indirect causation. German and French resemble English in having the same VOL construction for direct causation but differ in various constructions for indirect causation. In three Asian languages, Chinese has a variety of amateur constructions, among which “Ba” construction and RVC construction are most typical for caused motion and “zhe” construction for accompanied motion. Japanese and Korean show a likeness in their caused motion construction types and characters. Both Chinese and Japanese caused motion constructions show a high degree of language iconicity. To sum up, Indo-European languages tend to use the less analyzable and highly coercive CM construction, whereas Asian languages tend to do the opposite. The above findings based on construction grammar shed new lights on CM expressions and differences between two language groups pose a challenge to previous classifications of these languages. This study provides insights and implications for language typology studies from a new perspective.

(CM: caused motion; VOL: verb object locative; RVC: resultative verb compound)