

Constructional semantics: Cognitive, functional and typological approaches

Book of abstracts

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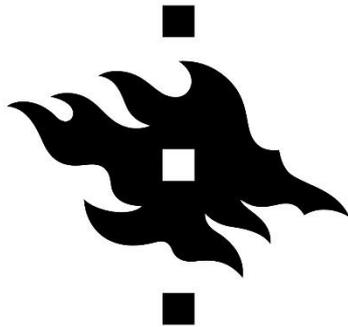
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I. Plenaries

On identifying, measuring, and describing the meaning(s) of constructions

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Constructional research over the past 25 years has come a long way with developing a linguistic framework for the description and analysis of the entirety of language. At the core of the constructional enterprise is the concept of “construction”, a pairing of form with meaning, and there are numerous studies on different constructions in a variety of languages. While most constructional research provides detailed analysis of the form side of constructions, very few studies investigate how to systematically determine the meaning of constructions. For example, Goldberg’s (1995) seminal work provides prose descriptions of constructions and identifies verbal roles that fuse with constructional roles, but she does not systematically account for the meanings of constructions. This talk addresses the following questions: (1) What criteria should be used for measuring constructional meaning? (2) What different types of meanings do constructions have? (3) Are the meanings of certain types of constructions only epiphenomena due to the large number of verbs occurring in these constructions? (4) What are the advantages and disadvantages of assuming constructional polysemy? (5) Do the networks representing the form sides of related constructions mirror the networks representing the meaning sides of those constructions?

Grammar meets metaphor: The current state of the art and computational inroads

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One of the key findings from studies on the interaction of conceptual metaphor with grammatical constructions is that generalizations exist in how metaphoric source and target domains are expressed in argument structure constructions (Sullivan 2013, Dancygier & Sweetser 2014, David 2016). For instance, in transitive constructions, the verb evokes the metaphoric source domain, while the direct object evokes the metaphoric target domain, and not the reverse (e.g., *raise someone's spirits*). Recent studies (Dodge 2016, and others) provide hope that such regularities are present across many constructional patterns at both phrasal (e.g. noun-noun constructions) and clausal levels (e.g. transitive, ditransitive constructions), and that generalizations can eventually be made for large parts of a language's constructional inventory.

In this talk, I review recent findings from theoretical and computational linguistic work exploring how metaphor is expressed through grammar. I provide insights from two research projects I have been a part of – the MetaNet Metaphor Identification Project (Stickles et al. 2016, David 2017), and the Cancer Metaphor Research Group at the University of California, Merced. From this work, I highlight some of the main traits of metaphoric constructions that should be taken into account in the design of any lexicographic or computational framework that pays attention to metaphoric expressions.

On the computational front, I show how the analyses produced through MetaNet leveraged a wide variety of grammatical constructions, via their metaphoric mappings to source and target domains, to automatically identify large numbers of linguistic metaphors. On the lexicographic front, some of my cross-linguistic investigations into metaphors in cancer discourse reveal additional challenges brought on by constructions that are harder to model computationally (David & Matlock forthcoming). This includes idiomatic expressions, instances of implicit target domains (e.g. *I keep fighting \emptyset _{Metaphoric enemy}*), layered metaphors (e.g. [*recovery is [within reach* STATES ARE BOUNDED REGIONS] PURPOSES ARE DESIRED OBJECTS]), metonymic source domains (e.g. *throw in the towel, chink in one's armor*), and metaphoric ambiguity in context. In this second section, I focus on some metaphor annotation techniques that can enhance existing lexicographic systems and constructions, such as the FrameNet projects (Lyngfelt et al. 2018), and could in the future act as a source of training data for automated metaphor detection systems like MetaNet, and others.

Metaphor is so widespread that building it into any grammatical and computational formalization is becoming unavoidable. Construction grammar is joining forces with computational linguistics to make some inroads in this respect. A serious effort to formally represent the metaphor-grammar interaction across a large variety of constructions could bear fruit in the future of Construction Grammar.

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Pinpointing constructional meaning(s): the FrameNet Constructicon approach and the development of a German Constructicon

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At least in constructionist approaches to linguistic structures it is a commonplace to assume a continuum between grammar and lexicon (Broccias 2012). However, even though a growing number of fairly productive partially-filled grammatical structures have been investigated by now, a uniform semantic approach to lexical and grammatical units is still underdeveloped, to say the least. To fill this gap, it is the aim of this talk to sketch out a framework that allows for analyzing and capturing the – possibly abstract – meaning(s) of lexical items and grammatical units likewise.

The talk is subdivided into two parts. The first part introduces the FrameNet constructicon approach adopted in the German Constructicon Project (GCon) hosted at the University of Duesseldorf (Fillmore et al. 2012; for German: Boas/Ziem in press; Ziem/Boas 2017; Ziem in press). GCon diverges from other construction grammars in several respects, most notably in terms of the objectives addressed and the methods applied. Among its characteristics is a strong commitment to empirical analyses using a well-defined set of annotation categories, including (a) so-called construction evoking elements (CEE), (b) construction elements (CE), (c) constructs licensed by the construction and “correlated elements” (CorE), that is, strings of words enhancing, or supplementing, a (semantic, pragmatic, discourse-functional, syntactic) property of the target construction. For each analysis, the empirical procedure comprises (a) creating sub-corpora and a preliminary analysis of instances, (b) syntactic parsing (using TreeTragger and the Berkeley Parser trained with German data), (c) semantic annotation with WebAnno, (d) semi-automatic constructional analysis (with the help of a tool called Construction Analyzer), and (e) the compilation of a construction entry.

Drawing on this methodological framework, the second part of the talk sets out to demonstrate that the same procedure can be applied to account for both lexical and grammatical meaning(s). As a test case, I introduce and compare semantic analyses of lexical items involving emotional experience (e.g., *to surprise, annoy, fascinate*) with analyses of grammatical structures specialized in coding emotions (e.g. exclamation, expressive binominals). Beyond such uniform descriptions of lexical and grammatical meanings, however, it is also necessary to show that the same set of semantic relations does not only interconnect lexical items but also provides structure to the constructicon, that is, the network of grammatical categories. Among these relations are, most prominently, polysemy, homonymy, meronymy, and hyponymy. By investigating a variety of constructions in German, such as the family of exclamation constructions, reduplication constructions, and negation constructions, I will show that these semantic relations indeed also correlate grammatical units.

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II. Section papers & posters

Dutch Sentence Focus Constructions on the semantics-pragmatics interface: a case study

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This paper reports on an ongoing investigation of the semantics and pragmatics of the Dutch Syntactic Inversion with Filler Insertion Construction (henceforth: SIFIC). Formally the SIFIC is characterized by a non-canonical syntactic sentence structure, whereby the subject follows the verb, which in turn is preceded by the adverbial pronoun *er*, as in (1) and (2).

(1) *Er valt sneeuw*
there falls snow
'It is snowing.'

(2) *Er loopt iemand op het dak*
there walks someone on the roof
'There is someone walking on the roof.'

The Dutch SIFIC, along with its counterparts in other languages, e.g. English (Birner & Ward 1996, 1998), has received attention for its particular topic-comment structure and focus-background articulation. In Lambrecht's theory of information structure, which fits particularly well within the Construction Grammar framework (cf. Leino 2013), it can be analyzed as an instance of a Sentence Focus Construction (cf. Lambrecht 1987, 1994, 2000, 2001). Sentence Focus Constructions are constructions on the sentence level, formally marked by morphosyntax and/or prosody, that convey a particular meaning that can be conceptualized as 'theticity' (Sasse 1987, 1995, 2006) or as 'Sentence Focus', i.e. a complete lack of presuppositions (Lambrecht 1987, 1994, 2000).

However, the question whether 'Sentence Focus' has to be regarded as the purely linguistic, non-defeasible and encoded meaning (semantics) of SIFIC or as a sense generated by encyclopedic knowledge, default inferences and implicatures (pragmatics) has hitherto not been addressed. Following the need to differentiate between these different kinds of linguistic content, as argued for by (neo-)Gricean pragmatics (Atlas 2005, Grice 1989, Levinson 2000), Relevance Theory (Sperber & Wilson 1986) structural functionalism (Cosieriu 1985) and some proponents of Cognitive Linguistics (Zlatev 2007, 2011), this paper raises the question whether 'Sentence Focus' belongs to the semantics or the pragmatics of the Dutch SIFIC.

In order to shed light on this issue, this study reports on a corpus research on the SIFIC in both spoken and written Dutch, whereby the various possible uses of the SIFIC were analyzed. SIFIC tokens were extracted from the *SoNaR-corpus Hedendaags Nederlands* and annotated for various factors, including topic-comment structure, focus-background articulation and referential givenness. SIFIC was attested with and without a 'Sentence Focus' reading, which indicates that

'Sentence Focus' cannot be considered to be the encoded, non-defeasible, meaning of the Dutch SIFIC.

This study thus confirms the cross-linguistic attested finding that Sentence Focus Constructions are often not dedicated to the expression of only 'Sentence Focus' (cf. Matic 2003, Karssenber 2016, Karssenber et al. 2018, Sasse 1995, 2006). Matic & Wedgwood (2013) argued on the basis of similar findings that Focus Constructions simply do not exist, because 'Focus' is never semantically encoded in linguistic constructions. The analysis proposed in this paper departs from the analysis proposed in Matic & Wedgwood, by arguing that Sentence Focus Constructions do exist, be it on the level of generalized conversational implicatures (pragmatics) rather than on the level of encoded semantics. This ties in with previous observations that the meaning of many constructions on the sentence level should be analyzed as a meaning on the pragmatic level rather than as encoded semantics (cf. Coene & Willems 2006, Willems & Coene 2006).

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The difference between semantics and pragmatic/encyclopaedic knowledge in a constructional account of alternating constructions

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Background

Several syntactic alternations have been investigated to determine the nature and semantic range of verbs and the constructions in which they occur. Recent developments in the syntax/semantics interface (Rappaport Hovav & Levin 2008) and Construction Grammar (Kay 2005, 2013) suggest that coded meanings ought to be distinguished from inferred information (Levinson 2000, Carston 2012, Coene & Willems 2006) in constructional accounts.

Objectives

The aim of the paper is to determine how to distinguish coded *meanings* of verbs and constructions from non-coded *senses* that come about on the basis of pragmatic/encyclopaedic enrichment. To this end, we investigate the role of pragmatic/encyclopaedic knowledge in the use and interpretation of two alternating ditransitive argument structures in present-day German. In particular, we aim to determine whether the alternating structures in German are constructions in their own right with encoded semantic properties similar to the Double Object Construction ('caused possession') and Prepositional Object Construction ('caused motion') in English, or whether they are alternants of a higher-level argument structure construction with a general underspecified meaning.

Methodology

We conducted a quantitative and qualitative analysis of three common ditransitive verbs (*geben* 'give', N=1300, *senden* 'send', N=1000, *schicken* 'send', N=1300) that partake in the ditransitive alternation in German. Examples were drawn from the *Deutsches Referenzkorpus* (<http://www.idsmannheim.de/cosmas2/>). The alternation primarily concerns the way the RECIPIENT argument is expressed, viz. in the dative (a-sentences) or with *an* + accusative (b-sentences):

- (1) a. *Solarsteckdosen, die unterwegs dem Handy oder Ipod wieder Strom geben.*
b. *Die Zentrale gibt ein Signal an einen Minicomputer am Handgelenk des Schiedsrichters.*
- (2) a. *Miura sendet seiner Familie Grüße vom Gipfel des Everest.*
b. *Klassenleiter Bernhard Graffe sandte einen Brief an alle Vereine.*
- (3) a. *Die Abteilungen schicken der Tagesklinik die meisten Patienten.*
b. *Sie schicken die Teststreifen nicht an die Kinderklinik.*

Results

Whereas it is generally acknowledged that the English Double Object Construction is dedicated to expressing transfer of an object to a sentient Recipient (cf. *Liza sends storage a book, Goldberg 2003), animacy of the RECIPIENT does not appear to be a coded feature of the corresponding German argument structure, compare (1a), (3a), and (4):

- (1) *Sobald jemand dem PC eine elektronische Post schickt, leitet dieser die Nummer vollautomatisch an das Handy zum Abspeichern weiter.*

The analysis corroborates the typologically supported assumption (Bickel 2011) that the two alternating argument structures in German are not two systemic constructions characterized by discrete encoded semantic properties. They constitute two ‘allostructions’ (Cappelle 2006) of a general threeplace GOAL-construction [NP_{AGENT} V NP_{THEME} NP/PP_{GOAL}] whose GOAL argument is underspecified (Frisson 2009) with regard to animacy. On the other hand, a host of variable factors such as animacy of RECIPIENT, pronominality of the arguments, specific verb sense, givenness, and length difference of the objects concur to yield strong preferences (including coercions) for one or the other alternating structure, without however being coded features of either alternant. Hence these factors are inferred pragmatic and encyclopaedic properties of the *senses* associated with the allostructions, not encoded properties of any construction *meaning* proper.

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Re-thinking frames from a constructional perspective

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In construction grammar approaches, frames provide the means to represent and combine the meanings of constructions. The meaning of Argument Structure (A-S) constructions, for instance, are linked to frames for basic scenes, with the construction's elements (words and phrases) linked to the frame's roles, representing participants within that scene (Goldberg 1995, 2006). FrameNet (Ruppenhofer et al. 2006) is a frame-semantic resource for constructional approaches, providing a large structured inventory of frames, each of which includes a definition, frame elements, and frame-evoking lexemes. However, constructional uses of frame-based meaning would be better facilitated by frame networks which consistently separate the semantics of *concepts* and *events* from the semantics of *perspectives* on those concepts. Crucially, these different semantic elements can be represented using basic schematic conceptual primitives such as image schemas and x-schema processes (Johnson 1987, Lakoff 1987, Dodge & Lakoff 2005, Feldman et al. 2010), which facilitate the composition of a basic scene frame representation and construction-instantiated perspectives on that scene.

For example, the core semantics of the concept FILL can be represented using basic schematic components: a container, its contents, and some proportion of contents to empty space inside the container. This concept can be realized in a variety of perspectives, many of which are represented by FrameNet (FN) frames (Table 1).

Table 1.

Event perspective	Example	FN frame	Focal element
Attribute	<i>The filled cup</i>	Fullness	Container (cup)
Stative	<i>The cup is filled with water</i>	Abounding_with	Container
	<i>Water fills the cup</i>	Distributed_position	Contents (water)
Change of State	<i>The cup is filling with water</i>	--	Container
	<i>Water is filling the cup</i>	--	Contents
Caused change of state	<i>He is filling the cup with water</i>	Filling	Container
	<i>He filled the cup full (of water)</i>		Container
	<i>He is filling water into the cup</i>	Cause_motion	Contents

Critically, these perspectives are not core to the semantics of FILL itself. They are more general schematic aspects of event structure, which are common across concepts (Table 2).

Table 2.

Event Perspectives				
	Attribute	Stative	Change of State	Caused change of state
FILL	<i>the filled cup</i>	<i>The cup is filled with water</i>	<i>The cup is filling with water</i>	<i>He is filling the cup with water</i>
FILL FN frame	Fullness	Abounding_with	Filling	Cause_motion
DRY	<i>the dry / dried clothes</i>	<i>His clothes are dry</i>	<i>His clothes dried</i>	<i>He dried his clothes</i>
DRY FN frame	Being_dry	--	Becoming_dry	Cause_to_be_dry
ATTACH	<i>the stuck papers</i>	<i>The papers are stuck to my skin</i>	<i>The papers stuck to the wall</i>	<i>He stuck papers onto the wall</i>
ATTACH FN frames	--	Being_attached	Becoming_attached	Attaching

Such variations can be analyzed as composing scenario-specific meaning (e.g. frames for the concepts of FILL, DRY, and ATTACH) with more general event-perspective meanings (e.g. frames for STATE, ATTRIBUTE, CHANGE OF STATE, CHANGE OF LOCATION, CAUSE CHANGE OF STATE, and CAUSE CHANGE OF LOCATION). Commonly, lexical construction meaning will evoke a ‘concept frame’, facilitating the recognition of semantic similarities across different uses of a given word. A-S constructions such as the MotionPath, CausedMotion, or Resultative constructions (Goldberg 2006, Dodge & Petruck 2014, Vigus & Croft 2017) specify the context that contributes to the differences in meaning across these uses, i.e. the different event perspectives.

FrameNet representations typically incorporate event perspective semantics. If all semantics is represented using lexemes and frames, without constructional mechanisms to compose meanings, then differences in event perspectives need to be captured via frames. But, attempting to create separate frames for the full range of possible perspectives faces a combinatorial problem: implementation of just 100 non-perspectivized concepts would require at least 400 individual frames, reflecting the four perspectives listed in Table 1. Moreover, absent a ‘non-perspectivized’ frame that captures the core structure of a given concept or scenario, it is difficult to identify the commonalities across perspectives (e.g. what do different uses of the word *fill* have in common?).

Crucially for constructional approaches, ‘non-perspectivized’ frames provide generalizations that enable representations of lexical constructional meanings, which support their composition with A-S constructions. Meaning associated with aspectual and causal structure can be accounted for by A-S and other constructions rather than necessitating a frame representation for each perspective on an event.

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Towards a typology of asymmetry in spatial adposition and case systems

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This study explores the semantic structure of the systems of spatial adpositions and/or cases found in 20 Eurasian languages. The encoding of spatial relations between a figure and a ground involves the choice of a localization with respect to the ground, such as 'surface', 'interior', etc. Taking motion into account as well, a local role or directionality, most prominently 'goal', 'source' or 'location', must also be specified (see Wälchli & Zúñiga 2006 for terminology). In Eurasian languages, adpositions and cases, here called 'spatial grams' for ease of reference (cf. Svorou 1993), typically express both localization and directionality.

Finnish is an example of a language where the intersecting domains of localization and directionality give rise to a symmetrical local case system with three local roles and two localization series – interior (illative, elative, inessive) and exterior (allative, ablative, adessive). Furthermore, many spatial adpositions are inflected for the same three local roles. Other such examples of symmetrical spatial gram systems are Hungarian and most Daghestanian languages (Daniel & Ganenkov 2009). Here symmetry refers to the fact that, while the division of the spatial domain into discrete localizations is language-specific (Levinson et al. 2003), each particular language consistently applies the same division throughout all three local roles. However, this is not the case for many Indo-European languages such as Albanian or German. This study seeks to uncover patterns in the kinds of asymmetries that can be found in spatial gram systems, following principles expounded by Miestamo (2007) for the typological classification of symmetric and asymmetric structures. The primary focus is on the semantic relationships between grams, with their various syntactic statuses as cases or simple or complex adpositions being of less relevance.

The study is based on data collected online through a questionnaire consisting of 77 short videos. Series of three to six videos portray pairs of various figures and grounds in different local roles, with the additional dimension of caused vs. uncaused motion. The choice of settings was partly inspired by Levinson (1999). The use of a language-neutral etic grid (Levinson et al. 2003: 487) enables direct cross-linguistic comparison. Since frames of reference are difficult to establish through videos alone, the settings mostly depict topological relations. The questionnaire was filled by 110 native speakers of 20 languages belonging to 17 branches of eight different stocks. While this is a convenience sample including several languages with large numbers of speakers, it displays a wide range of diversity even between neighbouring or related languages.

It appears that the most common type of asymmetry with respect to localization is the smaller number of distinctions made in grams expressing source as opposed to goal and location. Even in languages where the set of spatial grams provides for the same amount of distinctions, source is more often encoded with less specific grams. In terms of directionality, languages are mostly consistent in the distinctions they make. Among the notable exceptions is the inconsistent distinction between motion between localizations and motion to a localization in several Indo-European languages.

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Parametrical Construction *X Tipa Y* as Source of Discourse Marker *Tipa* in Modern Colloquial Russian

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Discourse marker *tipa* emerged in 1980s-1990s and became widespread in colloquial Russian in decades 1990s-2000s¹. Due to its vague reference semantics it conveys approximative character of utterance and is often used as a marker of reported speech.

Until recently, *tipa* was only briefly discussed among other discourse words of the same character, e.g. in [Plungian 2008], [Podlesskaya 2010], [Levontina 2010]. However, I became aware of two articles, where it was paid special attention, namely [Savchenko 2015] and [Wood 2015]².

The first one deals with constructions *X vrode / tipa / napodobie Y*, trying to reveal their semantic scope. The second one, though mentioning constructions *X tipa Y* as a starting point in the emergence of discourse marker *tipa*, then draws a very peculiar path of grammaticalization that leads from a noun to a discourse particle through the stage of the conjunction, which itself stays obscure. As this particular path of grammaticalization seems dubious to me, I propose here that marker *tipa*, in the variety of its functions, has parametrical constructions as its proximate source.

Current issue is based on the data from National Corpus of Russian Language (NCRL), and first of all from subcorpus of colloquial speech and multimodal subcorpus. NCRL is claimed to be imbalanced, but it enables tracing language changes over relatively long periods of time, that I believe to be its advantage.

I distinguish three statuses of *tip / tipa*, namely that of a noun, that of a partly grammaticalized element inside parametric constructions and that of a discourse marker³. My claim here is that passage from noun *tip* to discourse particle *tipa* includes two main stages.

1) During the first stage genitive *tipa* becomes petrified inside a parametrical construction, compare (1) containing a full-fledged noun with (2-3) that give examples of parametrical constructions:

(1) Kstati,	uzel	Ø	očen' specifičeskij
By. the. way	node. NOM. SG.	COPULA. PRAES.	very peculiar. M. NOM. SG.

i	optimal'nyj	dl'a
and	optimal. M. NOM. SG.	for

etogo	tipa	I	diametra.
this. M. GEN. SG.	type. GEN. SG.	and	diameter. GEN. SG.

'By the way, the node is very peculiar and optimal for this type and diameter.'

(2) kotly nemeckogo tipa
 boiler. NOM. PL. German. M. GEN. SG. type. GEN. SG.
 ‘boilers of German type’

(3) zvezdy tipa Solnca
 star. NOM. PL. type. GEN. SG. Sun. GEN. SG.
 ‘Solar-type stars’

At this stage, one can observe some variation in semantics. Thus, in (2-3) the component *Y* of the construction designates a class of objects (*classifying semantics*), whereas in (4) it is used to introduce a so-called *paradigmatic example*⁴ and in (5) it introduces a *comparator*⁵:

(4) ptički tipa tr’asoguzok
 bird. NOM. PL. type. GEN. SG. wagtail. GEN. PL.
 ‘birds like wagtails’

(5) gipoteza tipa skazki
 hypothesis. NOM. SG. type. GEN. SG. fairy-tale. GEN. SG.
 ‘hypothesis [that looks] like a fairy-tale’

Compared to full-fledged noun *tip*, *tipa* in parametrical constructions undergoes semantic restriction (its semantics shifts from more concrete to more abstract), morphological restriction (from fully declinable noun to a single petrified form) and syntactical shift from head to dependent element. All these are well-known signs of grammaticalization. Significantly enough, *tipa* in such constructions is treated as a kind of preposition in Russian tradition of grammatical description⁶, cf. [Russian Grammar 1980. I: 706]; [Russian Grammar 1980. II: 66]. As the corpus data reveal, constructions *X TIPA Y* come into use in the middle of the 19th century (6).

(6) Vo francuzskom teatre osobennoje moë
 In French. M. LOC. SG. theater. LOC. SG. special. N. ACC. SG. my. N. ACC. SG.

vnimanie obratila.na.seb’a ženščina
 attention. ACC. SG. attract. PFV. F. PAST. woman. NOM. SG

s prekrasnym licom južnogo tipa. (1846-49)
 with beautiful. N. INSTR. SG. face. INSTR. SG. Southern. GEN. SG. type. GEN. SG.

‘In the French Theater a woman, with a beautiful face of Southern type, attracted my special attention.’

2) During the second stage parametrical constructions of the type discussed above undergo a process which I can call loosening. At this stage, *X* can be realized by a pronoun (7)⁷ or even by zero, cf. (8), where *Y* retains genitive case while *X* has no phonemic realization. As for *Y*, it can be realized by small entities, cf. a pronoun in (8), on the one hand, and by large and /or indeclinable components, one the another hand (9)⁸.

(7) čto-to tipa togo
 something. NOM. SG. type. GEN. SG. that. GEN. SG.

(9) Pošël on pokupat'
 go. PFV. M. PAST. he. NOM. SG. buy. INF.

Ø tipa dvuh batonov.
 Ø type. GEN. SG. two. GEN. PL. loaf. GEN. PL.

'He went to buy kind of two loafs.'

(10) frazy tipa "Ya daval
 phrase. NOM. PL. type. GEN. SG. I. NOM. SG. give. IPFV. M. PAST.

hleb golodnomu,
 bread. ACC. SG. hungry. DAT. SG.,

ya odeval nagogo
 I. NOM. SG. dress. IPFV. M. PAST. naked. ACC. SG.

ya daval vodu žažduščemu..."
 I. NOM. SG. give. IPFV. M. PAST. water. ACC. SG. thirsty. DAT. SG.

<...> 'phrases like *I used to give bread to the hungry, I used to dress the naked, I used to give water to the thirsty...*'

Such loosened constructions like those in (8-10) I suppose to be the direct source of the marker *tipa*, for the link between the components of these constructions is so subtle as to launch the process of reinterpretation of *tipa* as an unbound element, i. e. of its pragmaticization. Thus, the first undisputable example of discourse particle *tipa* found in NCRL (11)⁹ seems to be very close to (10), with the difference that in (11) we find a verbum dicendi instead of a noun. As a consequence, no traces of dependencies between *tipa* and neighboring elements can be seen in (11), as well as in (12), where *ulybka* 'smile' is in nominative¹⁰ and is no longer dependent on *tipa*.

(11) On govorit tipa /
 Hei. NOM. SG. say. IPFV. 3 SG. PRAES. like

začem k nemu / <...> / jezdili? (1973)
 why to hej. DAT. SG. go. PL. PAST.

'He says like why <INTJ> have [you] gone to him?'

(12) Smajlik / eto Ø značok.
 Smiley.face. NOM. SG. it COPULA. PRAES. icon. NOM. SG.

Nu tipa ulybka.
 Well like smile. NOM. SG.

'Smiley face is an icon. Well, like a smile.'

¹ Cf. [Podlesskaya, Egorova 2017].

² I am indebted to E. L. Vilinbakhova (p.c.) for having attracted my attention to a recent article [Kolyaseva 2018].

³ All three statuses have already been discussed in [Podlesskaya, Egorova 2017] from strictly synchronic point of view. My purpose here is to present them as stages of a 'microdiachronic' process, which we can detect by means of corpus studies.

⁴ I owe this term to [Fleischman, Yaguello 2004].

⁵ I discuss the semantics of parametrical constructions with *tipa* in more detail in [Egorova 2018].

⁶ However, in notation I retain 'GEN. SG.' for these partly grammaticalized forms, for the sake of uniformity.

⁷ This very state is captured in [Savchenko 2015].

⁸ The only reason why I consider *tipa* in (10) as a component of parametrical construction is the presence of the noun *frazy* 'phrases' in its left context, that keeps it close to 'prototypical' constructions in (3-4). This decision, however, is of arbitrary character and can be reconsidered.

⁹ This example is mentioned in [Kolyaseva 2018: 86].

¹⁰ Actually, a subclass of constructions in question should be mentioned here, in which *Y* in nominative is in apposition to *tipa*, cf. (i):

- (i) *tort tipa* "Napoleon"
 cake tip. Gen. Sg. "Napoleon"
 'cake of *Napoleon* type'

Such constructions have strictly classifying semantics, and (12) is definitely not the case.

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Semantic subjects in child Russian

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Acquisition of the syntax-semantics interface and of the net of its interconnections has been a vague question for many years. Russian syntax allows various ways of semantic subject representation – it may be explicit (for example, as the syntactic subject in Nominative case or as an indirect object in Dative case) or implicit (it may be elliptic). An intriguing problem follows the fact that there is a specific distribution of syntactic types and verb semantics. Children acquiring Russian as their native language have to learn all these possibilities, verb syntax and verb semantics, and as some previous studies have shown they do it in a stepwise manner [Eismont 2016].

The present paper discusses the stages of this process and focuses on the acquisition of semantic subjects and their use with different verbs of 14 semantic classes. The study relies on the results of a series of experiments with Russian native children at the age of 2;7 to 7;6, who had to retell a story, presented to them either as a series of toy actions (for 2;7-3;6 year old children), or as a picture book (for 3;7-4;6 year old children), or as a cartoon in a silent mode (for 5;6-7;6 year old children). The total number of 213 children has been studied, the total number of tokens is 25689, 6521 of them verbs. The actions performed by the experimenters with the toys, by the cartoon characters and the characters of the picture book were similar, so all verbs of the texts of all age groups have been divided into such semantic classes as verbs of motion, verbs of communication, emotional verbs, verbs of mental activity, verbs of object manipulation, etc. Each verb has been attributed with its specific list of semantic roles and its syntactic structures.

The analysis shows that despite any verb semantics allows to omit subjects, the absolute majority of verbs of physiological actions (храпеть (to snore), мерзнуть (to freeze)) and verbs of emotions (плакать (to weep), радоваться (to rejoice)) restrict such subject omission. On the other hand, there are verb semantic classes that accept both explicit and implicit semantic subjects – such verb classes as verbs of behavior (действовать (to act), вести себя (to behave)) or the verbs of movement causation (кидать (to throw), пнуть (to kick)).

At the early age children tend to omit all arguments, including subjects, but there are some verb semantic classes where the difference between the youngest children and other age groups is statistically insignificant (p -value $> 0,05$). These are verbs of object manipulation (строить (to build), ловить (to catch)), verbs of movement causation and verbs of social relations (дружить (to be friends), помогать (to help)), and may be explained with the fact that these verbs are acquired earlier than other semantic classes [Eliseeva 2014]. These data prove that at the early age children omit semantic subjects due to such reasons as verb semantic class and the level of its acquisition, while at the age of 5 to 7 they do it following syntactic and communicative rules.

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Bipartite constructions in multimodal and multilingual language use

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This paper brings together examples of multimodal and multilingual bipartite constructions. The aim is to illustrate some similarities between multimodal and multilingual constructions, and to raise discussion on the role of bipartitedness in language. Earlier, (Frick 2013) I have proposed that the natural bipartitedness of some linguistic constructions may make them more likely to be used bilingually. In this paper, I hypothesize that this may well be the case with multimodal constructions as well, and that some of the same semantic-pragmatic motivations may lie behind the use of multimodal and multilingual bipartite constructions.

Emojis can be used as part of a compound as in 🚗教習 (car+training ‘driving lesson’) (Azuma & Ebner 2008). This is an example of a multimodal determinative compound, in which the head **identifies** the referent as belonging to a class (‘training’), and the modifier **attributes** the head, thus characterizing and specifying the meaning of the compound. Multimodal bipartite constructions are also seen in combinations of a gesture and a verbal element. For instance, a child in Andrén’s (2014: 159) study uses the headshake together with words referring to an agent (Mummy, a doll etc.). The meaning of the construction is that the agent ‘can not, may not etc. do something’ (ibid.). In this construction, the verbal part **identifies** the agent, and the physical action **expresses deontic stance** - the speaker’s view on whether the agent should or should not carry out a next action (cf. Stevanovic 2013).

An example of a bipartite multilingual construction is the subject complement clause *allt detta är tyhjä* in (1) taken from Saari (2009). The main language of the text is Swedish:

(1)

all-t detta är tyhjä-ä

all-DEF DEM.NEU be nothing-PAR

‘This is nothing at all.’

The subject complement clause (1) consists of a subject *allt detta* ‘all that’, a copula *är* ‘is’ and a subject complement *tyhjä* ‘nothing’. The subject complement is a Finnish adjective, literally ‘empty’, in the partitive case. Frick (2013: 50–52) suggests that subject complement clauses such as the one in (1) can be analysed as bipartite constructions, in which the copula forms a ‘bridge’ between the two parts. The subject of the clause **indicates** a referent, and the subject complement **characterizes** it, expressing the speaker’s **evaluative stance** towards the referent.

The study shows that:

- There exists a vast collection of bipartite constructions, in which one of the parts identifies a referent, and the other part characterizes or expresses the speaker’s stance towards it;
- These bipartite constructions can be used multimodally or multilingually;

- It seems more typical that the part doing characterization/modification is used in a different mode or language than the surrounding text. The mode/language of the identifying/indicating part is typically the same as the surrounding text's (although there are exceptions to this).
- Motivation for the multimodal and multilingual use of bipartite constructions can be sought in, for instance, the contextualisation function of codeswitching and other contextualisation cues (cf. Gumperz 1982).

The study creates far-reaching theoretical implications regarding construction-based approaches to grammatical description that seek to avoid unduly narrow understandings of 'grammar' and 'meaning'.

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The encoding of factive motion events in German: Towards the productivity of directional constructions

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One of the most discussed problems in linguistics is the encoding of motion events. Talmy (1985, 2000) claims that there are two basic strategies languages use to encode motion events. German in this respect belongs to the satellite-framed languages. In these type of languages, MOVE and MANNER are encoded in the verb whereas the PATH information is said to be in the prepositional phrase. However, it does not seem to be exclusively MANNER that is to be expressed in the verb paradigm of directional constructions in S-languages. Olofsson (2014) shows for Swedish that besides MANNERverbs the slot of different directional constructions can be filled with verbs having different functions such as means, incremental or result, which evoke additional frames. These findings differ in some respect from Talmy's observations for the English language (Talmy 2017), so the syntactic productivity seems to be language specific.

The question arises how productive directional constructions are in German. Recent work for the German directional constructions has mainly focused on emission verbs in some directional constructions (e.g. Goschler 2011, Engelberg 2009, Welke 2009), illustrated by the example (1) of the object making a noise. I will argue that there are many more verb classes, directional constructions, and their interaction to be analyzed, considering utterances such as in (2) and (3) and (4).

(1) Susi knallt die Tür.
 Susi slam-PRS door-DEF
 'Susi slams the door.'

(2) Anna chillt sich in die Sonne.
 Anna chill-PRS REFL in-DIR sun-DEF
 'Anna is going to relax in the sun.'

(3) Wir müssen jetzt zur Arbeit.
 We have to-PRS now to-DIR;ART.DEF. work.
 'We have to go to work.'

(4) Wir können uns da einfach hingooeln.
 We can-PRS REFL there-DEM easy-ADV there.google-INF
 'We can easily go there/find our way by using Google.'

The utterances in (2) to (4) are pieces of evidence from spoken German, collected by listening to authentic conversations.

The aim of the present study is to use frequency data of written German to take an inventory of directional constructions and the verb classes used in these constructions that evoke a frame of a motion event. This analysis uses the methodology of bootstrapping the corpus 'DWDS blogs'. The results indicate that in German, modal verbs, action verbs and egressive verbs are used highly frequently in directional constructions, while emission verbs are not very frequent but very productive. Deictic particles and reflexives seem to play an important role for the coercion in the directional constructions.

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Time, negation and non-finiteness: On twofold complexity in temporal frames of Finnish negative converb construction

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In this paper, I will point out the complex temporal structure of Finnish MATTA-converb construction (see ex. 1). The research question is as follows: how non-finiteness, tempus and negation together bring forth a relatively complex temporality to a form which is non-temporal by definition?

Finnish and other related Uralic languages are extremely rich in non-finite forms (see Miestamo, Tamm & Wagner-Nagy (eds.) 2015). For example, in Finnish there are some fifteen different non-finite forms termed as *infinitives* and *participles* in Finnish grammar tradition.

I will analyze Finnish MATTA-structure, e.g. as *syhy-mä-t* (itch-CONV-ABE, 'without itching') and *kraappi-ma-t* (scratch-CONV-ABE, 'without scratching') in (1) in the light of dialect data. Typologically MATTA-structure is a converb: as can be seen in (1), MATTA is an adjunct for finite structure. It is the only negative non-finite form in Finnish. Usually its implicit arguments are co-referred with those of finite structure, but it can also have its own arguments as well.

(1) Finnish (DMA, Mietoinen)*

ko	syhy-mä-t	sauna	mene	ni	ei		
when	itch-CONV-ABE	sauna.ILL	go.3SG.PRES	then	NEG.3SG.PRES		
kraappi-ma-t	pois	pääs	ko,	semmot	vanha aika	sanot-ti	
scratch-CONV-ABE	away	get.out	when	such	old.ILL time.ILL	say-PASS.PRES ¹	

'when one goes to sauna without itching, s/he cannot get out without scratching, such [proverbs] they always said in old times'

I will consider MATTA as a *construction* which is partly depended on finite structure (due to adjunct-hood) and partly independent (due to e.g. its own argument structure). Because of non-finiteness one obvious semantic feature, which makes MATTA conceptually dependent, is time. My aim is to present a coherent frame semantic description of temporal interpretations of MATTA-construction based on temporal grounding on the one and temporal sequencing of implied occurrence of actions by abessive on the other hand (Langacker 1991).

* DMA = Digital Morphology Archive, see <<https://korp.csc.fi>>, Mietoinen = a parish in Southwest Finland

¹ Abbreviations: ABE = abessive, CONV = converb, ILL = illative, NEG = negation, PASS = passive, PRES = present tense, 3SG = 3. singular

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Constructional semantics of the future: Empirical approaches to competing future constructions

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Investigating speakers' choices between competing constructions has proven highly insightful in assessing constructional semantics, but also in approaching the interplay between different (e.g. syntactic and pragmatic) factors that determine speakers' choice between constructions (see e.g. Goldberg 1995, 2002, 2006; Gries & Stefanowitsch 2004). In this talk, I focus on the variation between two different ways to express future events in German, namely the *werden* + Infinitive-construction and the futurate present (see e.g. Hilpert 2008, Hacke 2009). Sentences like (1) and (2) can arguably be used interchangeably in German.

- (1) *Ich gehe morgen ins Kino.* (lit. 'I go to the cinema tomorrow')
- (2) *Ich werde morgen ins Kino gehen.* ('I will go to the cinema tomorrow')

However, the two variants can be argued to exhibit subtle differences in meaning. Firstly, given that *werden* + Inf. conveys epistemic stance – which has sometimes been argued to be its main function (Saltveit 1960, Vater 1997) –, the variants might differ in the degree of certainty with which the speaker expects the event to occur. Secondly, given the explicit encoding of the future meaning in (2), the second variant might convey a greater (subjective) temporal distance. The present study focuses exclusively on the latter aspect, i.e. the temporal interpretation of the variants.

In order to assess whether sentences framed in the futurate present and sentences using the *werden* + Infinitive construction are interpreted differently, an online study was conducted using *jsPsych* (de Leeuw 2015). Participants were asked to judge how far in the future a specific event will take place using a continuous slider. They did so for 12 different stimuli sentences, which varied (i) between *werden* + Inf. and the futurate present and (ii) between near-future and distant-future events. The following hypotheses, which have been pre-registered on the Open Science Framework (www.osf.io), are tested:

1. for near-future events, the use of *werden* + Infinitive triggers participants to locate events in the more distant future compared to the use of the futurate present;
2. for distant-future events, we expect this tendency either to be weaker or even to be reversed, as in this case, the epistemic reading might have a stronger effect.

The experimental study is complemented by a corpus study that adds to Hilpert's (2008) and Hacke's (2009) results in approaching the German future alternation from a multifactorial point of view. Specifically, a sample of sentences with future reference is extracted from the DWDS Core Corpus of the 20th century (Geyken 2009). In order to identify those, a number of temporal adverbials is used, as proposed by Hilpert (2008). False hits are eliminated manually, and the data are coded for sentence type (main vs. subordinate clause), temporal distance (near vs. distant future), context (presence or absence of *werden* + Inf. in the preceding context to control for

stylistic choices) as well as event type (specifically with regard to the question of whether the speaker has volitional control over the occurrence of the event).

Taken together, these studies can help characterize the semantics of both constructions and give clues to syntactic, pragmatic, and extra-linguistic factors that determine their variation, which in turn may feed back into their semantic interpretation.

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Lexical variation within idiomatic constructions

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Idiomatic expressions can be taken as constructions with lexically filled slots (Goldberg 2006: 5). However, a growing body of corpus evidence from various languages suggests that idioms are not as fixed as they were earlier assumed to be; in this paper, such evidence comes mostly from Finnish (Heinonen 2013).

The mechanisms that allow lexical variation in idioms have been studied from different points of view: for instance, psycholinguistic (e.g., McGlone & Cacciari 1994), cognitive (e.g., Langlotz 2006), or corpus-based (e.g., Stefanowitsch & Gries 2003). Compositionality is usually taken as a precondition for variability, but noncompositional idioms may vary as well; the Finnish equivalent for ‘pushing up daisies’ serves as an example. The predicate verb is chosen from a small set of synonymous verbs of ‘pushing’ supplemented with the verb ‘grow’, while ‘cow parsley’ – which stands for ‘daisies’ – may be replaced with names of some other weeds. (Heinonen 2013: 172.)

In earlier studies, there have been different solutions on how to define or characterize the sets of lexical choices: a word list (as in ODEI), a post hoc semantic class (Stefanowitsch & Gries 2005: 37 footnote 10), a “plausible” cognitive representation (Bybee & Eddington 2006: 329), a context-dependent ontology (Jezek & Hanks 2010), or a WordNet synonym set (Perek 2014: 73), to name a few. In Construction Grammar, the fact that lexical items are syntactically and semantically compatible with the larger construction they are part of means that the alternatives are, in principle, subject to the same overall conditions, which restricts the pool of options (Boas 2008).

In my paper, I will evaluate some of these proposals on the basis of the predictions they make. As should be clear from the example with “pushing up different types of weeds”, lexical semantics in terms of near-synonyms and/or co-hyponyms falls short in precision (see Moon 2008 on a similar case).

The amount of variation leads to the question which of the resulting variant forms actually represent the same idiom. I aim to show, with the help of real data, that variation can take place at all levels of linguistic representation simultaneously (in the spirit of Heinonen 2014 and Petrova 2011), and where to draw the line is mainly relevant for practical purposes. Variation may derive from rather small morphological distinctions, or it may be dependent on higher-level conceptual associations or encyclopedic knowledge. Viewed this way, idiomatic constructions are both syntactically and paradigmatically flexible, and in a constant state of flux. On the other hand, usage-based nature of language keeps variation under control.

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Two types of *find one's way*: A lexical-constructional account

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There are two types of *find one's way*. First, there is a 'non-self-propelled motion' type, as observed by Goldberg (1995).

(1) "Bolivia estimated that about half its sacred textiles ... had *found their way into American collections*." (Goldberg 1995: 213)

Clearly, textiles are not self-propelling entities, despite the fact that generally in the means type of way expressions, the motion must be self-propelled (**The wood burns its way to the ground*).

Goldberg (1995: 213) also notes that with this type of *find one's way*, "only the goal or endpoint of the path can be made explicit – the route itself may not be expressed."

(2) *The textiles found their way through customs.

Besides this 'non-self-propelled motion' type, a 'self-propelled motion' type is also available for *find one's way*.

(3) ... as he and Ari tried to *find their way* through the labyrinth of Roirbak's complex to the canteen. (BNC)

In this presentation, these two types of *find one's way* are examined.

First, the 'self-propelled motion' type typically involves a volitional finding activity. The subject keeps finding the route, thereby enabling the movement. So this type of *find one's way* is basically the same as typical *way* expressions like *force one's way* or *push one's way*.

Next, the 'non-self-propelled motion' type has two characteristics, as noted above: That the motion is not self-propelled, and that the path PP is limited to goal PPs. A search of the British National Corpus and the Wordbanks Corpus confirms that Goldberg's observation is basically correct.

As for the first characteristic, the occurrence of non-self-propelling subjects is quite unexpected of *way* expressions, indeed.

(4) ... whether much of this money *finds its way back into the community*. (BNC)

But this is not so exceptional when seen in the context of motion verbs, in that these non-self-propelling entities can actually occur with motion verbs like *go* or *come*.

(5) *Some of the money went into the pockets* of individuals ... (BNC)

Conceptually, there are agents in respective scenes. It is just that the agents are somehow not explicit.

It seems reasonable to analyze these sentences as involving a special type of motion – “agent-backgrounding motion.” A close examination of the corpus data reveals that the ‘non-self-propelled motion’ type seems to be used when the agent does not have to be mentioned because it is irrelevant to mention the agent or when the agent cannot be mentioned because it is not known. It follows that the occurrence of non-self-propelling subjects is a consequence of agent-backgrounding motion applied to *find one’s way*.

As for the second characteristic, the ‘non-self-propelled motion’ type is strongly goal-oriented precisely because *find* is an achievement verb in the Vendlerian aspectual classification: Unlike accomplishments, which involve both a process and an end-point, achievements have an end-point alone. Accordingly, *find* in this sense profiles only the moment the mover arrives at a place. Hence the goal-orientedness.

The constructional semantics of aspect in Russian

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We present an experiment on the acceptability rating of Perfective and Imperfective aspect in Russian, which yields a set of normed examples that is used as the basis for ferreting out the grammatical constructions and collocations that interact with aspect.

In Russian, all verb forms express Perfective or Imperfective aspect (Timberlake 2004). There are a few absolute restrictions on aspect: for example, only Imperfective is used in Present tense, and only Imperfective can follow phasal verbs such as *načat'* 'begin' and *prodolžat'* 'continue'. In addition, reference grammars and textbooks list dozens of adverbial "triggers" for aspect, such as *uže* 'already' is used with Perfective, whereas *vsegda* 'always' is used with Imperfective (Rassudova 1968, Wade 1992, Offord 2005). However, even in aggregate all such adverbials appear in collocation with only 2% of verbs in corpus samples (Reynolds 2016), so the aspect of most verbs is arrived at in the absence of such constructional "triggers". Furthermore, in our experiment (described below), the rating of Perfective and Imperfective verbs is not influenced by the presence vs. absence of a known "trigger" (effect size in ordinal regression analysis is minimal).

500 native speakers of Russian participated in our experiment, in which they rated the acceptability of 1346 Perfective and Imperfective forms in six authentic texts of 1100-1700 words each. They rated forms as Excellent (=2), Acceptable (=1), or Impossible (=0), and Figure 1 plots the weighted average of ratings for original vs. non-original aspect. We find that for 81% of examples (lower right quadrant of Figure 1; cf. example 1), native speakers prefer one aspect (though with varying degrees of consistency), while for about 17% of examples both aspects are acceptable (upper right quadrant of Figure 1; cf. example 2). Thus we have normed the reactions of native speakers to these examples.

(1) *V vosem' let mal'čik [original sbež-a-I / non-original sbega-I] iz dom-a.*

[in eight.ACC year.GEN.PL boy.NOM.SG [run.PFV-PST.M.SG / run.IPFV-PST.M.SG] from home-GEN.SG]

'At the age of eight the boy **ran away** from home.'

Weighted averages: Original (Perfective) = 2.0; Non-Original (Imperfective) = 0.19

(2) *Vyži-vš-uju iz um-a starux-u nikto vser'ez ne [non-original prinja-I / original prinima-I].*

[outlive.PFV-PST.ACTIVE.PTCP-ACC.F.SG from mind-GEN.SG old.woman-ACC.SG no.one.NOM seriously not [accept.PFV-PST.M.SG / accept.IPFV-PST.M.SG]

'No one **took** the senile old woman seriously.'

Weighted averages: Original (Imperfective) = 1.6; Non-Original (Perfective) = 1.41

It remains a mystery how native speakers distinguish between constructional contexts where one aspect is preferred and those where both aspects are possible, and also how they select the correct aspect in the former contexts. We report on various means to sort and analyze the constructions that are most extreme in terms of categorical preference (like example 1) and ambivalence (like example 2). This includes analysis of multiple factors (such as plural vs. singular,

negation, tense), as well as the examination of Google n-grams for the Perfective and Imperfective verb forms in our experiment, and the inventory of constructions in the Russian Constructicon (<https://spraakbanken.gu.se/karp/#?mode=konstruktikon-rus>).

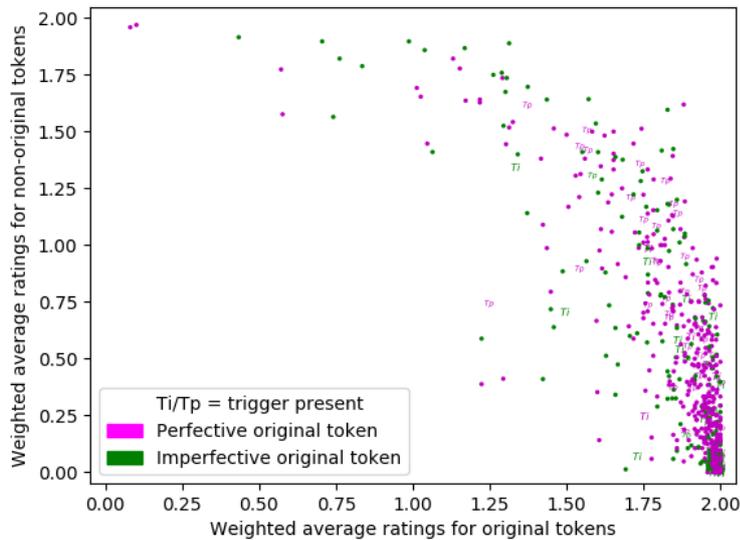


Figure 1: plot of weighted average ratings of original vs. non-original aspect

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A constructional analysis of verbs of sound emission in *hit* verbs

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Levin (1993) classifies *bang*, *bump*, and *thump* as *hit* verbs. These are onomatopoeic words (cf. *Oxford English Dictionary*) which describe a sound when an entity comes into contact with something or someone. However, close observation reveals that these verbs are rather different in their valence patterns and mechanisms of lexical encoding. This study elucidates the lexical meaning of these three verbs, and argues that constructional approaches (Goldberg (1995, 2006); Boas (2003); Iwata (2002, 2006, 2008)) surpass lexical rule approaches (Levin and Rapoport (1988); Rappaport Hovav and Levin (1988); Pinker (1989)) for capturing their true behaviors.

The frame-constructional methodology developed by Dux (2016) was used to collect examples of *bang*, *bump*, and *thump* which evoke the `Cause_impact` frame from COCA. Although the three verbs share a number of valence patterns, they are rather different in pattern and frequency. For example, according to Levin (1993), while these three verbs participate in with/against alternation (*Paula hit the stick against/on the fence / Paula hit the fence with the stick*), they occur in each variant with different frequencies. *Bang* occurs in the on variant much more frequently than the other two variants, but *thump* and *bump* occur in the three variants with almost the same frequency. This is problematic for lexical rule approaches, because it is difficult to pin down which variant is more basic; furthermore, although the three verbs are alleged to belong to the same verb class, they do not behave uniformly (cf. Iwata 2008).

The syntactic behaviors of these verbs are best accounted for in terms of Construction Grammar and the two types of lexical encoding proposed by Iwata (2008): the “scene-encoding” type and the “constant-insertion” type. In the former, a verb encodes almost the same scene described by a verb phrase (e.g. *load*). In the latter, a verb encodes a core meaning which is inserted into a scene described by a verb phrase (e.g. *spread*). Careful analysis reveals that these verbs can be characterized as the “constant-insertion” type. More specifically, the lexical meaning of *bang* can be characterized as “an event/action which saliently involves the sound of ‘bang’” (cf. Iwata (2008)). While this characterization basically fits with *thump*, *bump* is characterized as “to collide two entities”; in other words, *bump* has an image-schematic representation as its lexical meaning. Thus, these verbs are common in that they are onomatopoeic verbs, but there is a sharp distinction *bang* and *thump* on the one hand and *bump* on the other. In conclusion, this study contributes to the elucidation of what semantic element *bang*, *bump*, and *thump* lexically encode, and to the development of constructional analysis of argument structure.

On the Phylogenic and Ontogenic Origins of Constructions

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The aim of this paper is to propose the emergence of human language capacity from the first motoric and co-speech gestures, concentrating on some idiosyncratic features of constructions. The hypothesis of human language evolution based on the mirror neuron system is compared to empirical investigations of language acquisition. The hypothesis pursued here is inspired by the discovery of the mirror neuron system. Neuroscientists in 1992 found a group of neurons in monkeys with a surprising property: the neurons not only fired when monkeys carried out an action, but also when the monkey observed someone carrying out the same action.

In the case of *Homo Sapiens*, this paper argues, the neural mirroring is a necessary precondition for the emergence of linguistic constructions. There are two main reasons for this. First, the neural mirror system highlights the importance of imitation in language emergence. Second, focusing on action, the resemblance between action and reaction in the mirror neural system is functional and structural in the same manner as in the case of the analogy of linguistic constructions.

Psychologist Jean Piaget worked mainly in the cognitive development of children, but his theory and empirical findings are highly relevant also for the topic of constructions. According to his schema theory, a child progresses from sensorimotor schemas to symbolic schemas. Even the term *schema* reminds of constructions. Furthermore, Piaget gives a detailed description of imitation.

The evolution theory of Arbib & Rizzolatti and the learning theory by Piaget, include evident parallels. According to both Arbib (phylogeny) and Piaget (ontogeny), the first primordial sign anticipating language development are immediate *physical imitation* 'this is like your movement' (ICON) and *grasping* or *pointing by hand* (INDEX). The second step in development is *deferred imitation*. It means imitation after the model has disappeared. Referring to an earlier action, the iconicity of deferred imitation is complemented with an indexical feature.

The third stage is what Piaget calls the *make believe* and Arbib *pantomime*. The researchers point towards a clear difference between mere (deferred) imitation and its advanced form (play or pantomime), which means that the human being is able to represent something that has happened earlier, and realizes the difference between the play and the real situation. About at one year children began to display somehow that what they do is not "true". In the evolutionary theory the performance of pantomime implicates that it refers to something different from the current situation. This is a crucial step in language development. The features of conscious pretending signify the beginning of SYMBOLISM.

As a conclusion, all this points towards the observation that imitation itself – immediate imitation, deferred imitation, different analogical variations of imitation, contextual imitation – is a very divergent phenomenon. However, constructions cannot be reduced to mere imitations. Variations made by the speaker cause analogical series, including both icon and indexical qualities. Because of this, constructions tend to convey context in their grammatical form. Contextual, *indexical sensitivity*, is an early ability of the human being.

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Iconicity and alternation in direct speech in English

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English has two ways of quoting one's utterance as in (1):

- (1) a. "My dear fellow," said Sherlock Holmes.
- b. "My dear fellow," Sherlock Holmes said.

The examples in (1) refer to an event in which the narrator is quoting the addresser verbatim. This means that two constructions express the same event using two different word orders as schematized in (2), which will be called QVS and QSV, respectively:

- (2) a. "Quote" Verb Subject
- b. "Quote" Subject Verb

This alternation has gained considerable attention in the generative framework (e.g. Branigan and Collins 1993). However, this study will show that the alternation cannot be explained without appealing to a cognitive construction grammar (e.g. Goldberg 1995).

The constructional schemata in (2) shows that the competing forms differ in their linear orders; V comes next to Q in QVS, whereas the subject separates them in QSV. Iconically speaking, this linguistic distance predicts that a tighter semantic cohesion between Q and V in QVS than in QSV should be observed.

In order to investigate the above-mentioned hypothesis, the constructions, of which the Q ends with an exclamation mark as in (3), were manually extracted from the British National Corpus (or BNC), and we obtained 2,132 instances of QVS and 1,695 of QSV.

- (3) a. "For God's sake, Dalziel!" exploded Connon. (BNC)
- b. "Look here, you!" Leith exploded as [...] she halted at her bedroom door. (BNC)

We restricted ourselves to the data with exclamation marks because the punctuation indicates an utterance in a loud or emotional voice, and if the functional principle is at work, then the biased distribution in the verb meaning is expected. With this assumption, we used distinctive collexeme analysis to obtain verbs that are significantly more frequent in either of the constructions (Gries and Stefanowitsch 2003, Gries 2014). The 20 most strongly biased verbs in QVS are given in (4), and those in QSV are in (5):

- (4) QVS
announce, answer, bark, beg, breathe, come, cry, exclaim, gasp, protest, repeat, scoff, scream, screech, shriek, snort, squeak, think, wail, yell

- (5) QSV
blurt, burst, give, glance, glare, lean, look, nod, put, raise, reply, shake, sit, speak,
stand, star, take, tell, turn, wave

The list in (4) shows that verbs that are tightly related to an exclamation mark (e.g. those that refer to a loud or high-pitched sound or a strong emotion such as cry and squeak) are used in QVS, whereas the list in (5) does not show such tendencies. It can be further argued that QVS expresses the addresser's way of speaking more accurately than it does in QSV because the manner of speech that many verbs in (4) express is semantically coherent to the exclamation mark. Therefore, we can formalize the competing constructions as follows:

- (6) a. [[Q V S]/[Q as a more accurate quote]]
b. [[Q S V]/[Q as a less accurate quote]]

On balance, we suggest that the alternation stems from the functional principle, and this cannot be captured without assuming form-meaning pairings in direct speech.

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The Database “Phrasal Diachronicon”: constructional change in Russian expressions with quantitative semantics

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The aim of this work is to describe Russian quantitative constructions in terms of Construction Grammar. In particular we are interested not only in the constructions themselves, but mostly in constructional change in the diachronic perspective. The purpose of this work is to find generalizations for constructional changes of different types for Russian expressions with quantitative semantics. Following Hilpert (Hilpert 2013), we will analyze statistically changes in frequency, form, and function of our constructions.

In order to achieve our goals we made a database called *Phrasal Diachronicon* (which is available online: <https://ph-diachronicon.herokuapp.com/>). This database is still being extended and filled with new expressions and new information in order to get more precise statistics on constructional changes later. Our database was inspired by Russian Construction database (Lars Borin et al. 2012). Several types of search through the database are available on our website. First of all, it is possible to search by period of time when an entry with some construction has occurred. Secondly, users are able to search by “formulas”. All quantitative expressions in our database have their own formulas where the information about their compatibility with different parts of speech is contained. For example, Russian expression *ni shisha ne* ‘almost nothing, a few’ has the following formula: “*ni shisha ne* V|N-GEN”. This means that the expression *ni shisha ne* can be combined either with verb or with noun in genitive case on the right and cannot be combined with anything else.

Here we will discuss the structure of each article on our website. Firstly, there are noticed grammatical features of the construction in the synchrony. Secondly, we describe the origin of the construction, date of the first entry in the Russian National Corpus, and its history. The period of diachronic evolution we interested in lies between XIX and XXI centuries and is divided in shorter periods of 50 years each. Finally, we provide information on lexical and semantic compatibility of the construction with different parts of speech in synchrony.

For now our database consists of 50 articles. We will demonstrate the structure of an article on an example of a construction *prud prudi* ‘a lot of’:

- (1) *W les-u zajts-ev prud prud-i.*
in forest-LOC hare-GEN.PL pond dam.up-IMP
‘There is a lot of hares in the forest’

Formula: N-GEN.PL *prud prudi*

Some grammatical features. There are examples with the obsolete norm of nouns in instrumental case:

- (2) *Zato tak-imi, u kotorych net det-ej, prud prud-i.*
 but such-INSTR by which-GEN.PL no child-GEN.PL pond dam.up-IMP
 'There are a lot of marrieds without children'

The origin of the construction. This construction comes from combination of verb *prudit* 'to dam up' and noun *prud* 'pond'. The first token in Russian National Corpus dates back to 1831:

- (3) *M'od-om i masl-om hot' prud prud-i.*
 honey-INSTR and butter-INSTR though pond dam.up-IMP
 'There is a lot of honey and butter.'

An example of change in history. 1850 -1900: First examples appear with noun in genitive:

- (4) *Na svet-e belokur-yh da s golub-ymi glaz-ami hot' prud prud-i.*
 on world-LOC blond-GEN.PL and with blue-INSTR eye-INSTR
 though pond dam.up-IMP
 'There is a lot of people with blond hair and blue eyes in the world.'

As for future perspective, we are planning to add new constructions in the database and make generalizations based on the statistics. We will also expand the scope of our interests to other semantic groups of constructions, such as 'time', for instance.

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Two kinds of meaning in grammatical variation

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It is well known that constructional descriptions in CxG frequently conflate semantic and pragmatic aspects of meaning. My talk seeks to problematize this conflation for the theoretical treatment of constructions that are in grammatical variation with one another. In layman's terms, such constructions represent "two or more ways of saying the same thing" (Tagliamonte 2012: 4), where "thing" refers to the meaning they express. This is reminiscent of CxG's definition of constructions as form-meaning pairings, where the "meaning" part subsumes semantic as well as pragmatic meaning. Both definitions are insensitive to the semantic vs. pragmatic divide as it is conceived in the pragmatic literature, which defines semantic meaning as coded meaning and pragmatic meaning as inferable meaning (Ariel 2008, 2010).

A direct consequence of this conflation is the view that grammatical variants represent different constructions that ought to receive different theoretical treatments (Goldberg 2002). For example, in studies of the English genitive alternation (e.g., *Mary's children* ~ *the children of Mary*), the opposite view that the two variants are semantically equivalent constructions has been entertained by only few (Rosenbach 2002, Hinrichs & Szmrecsanyi 2007). The result has been a plethora of divergent descriptions of genitive constructions which somewhat fail to capture the commonalities between them (e.g., Stefanowitsch 2003, Gries 2003). The sticking point of the debate revolves around the issue that, due to expressing respectively different sets of genitive relations, the alleged grammatical variants are frequently not interchangeable (e.g., *the bag of rice* ~ **rice's bag*). This non-interchangeability is often simply attributed to the "meaning" of the two constructions – and it is here that the problem lies.

My central argument will be that the above two views are in fact reconcilable if the stable semantic meaning of genitive NPs is kept distinct from their variable pragmatic meaning(s). For example, the semantic meaning of *Mary's children/the children of Mary* is 'the children who stand in some relation to Mary', while its pragmatic meaning, depending on context, may be 'the children Mary gave birth to', 'the children Mary is looking after', or other conceivable interpretations. Importantly, the attested non-interchangeability of certain genitive NPs results not from the constructions' semantic meaning but from their pragmatic meaning(s), which should be reflected in their theoretical treatment. Rather than committing to either view, I wish to strike a middle ground by arguing that the two constructions are semantically equivalent in that they encode a procedure to find a contextually salient genitive relation, but pragmatically different in that they diverge in which specific relations they may express in context.

To model the semantic/pragmatic divide in genitive constructions, I adopt Cappelle's (2006) notion of allostructions (cf. Perek 2012, 2015), defined as variant syntactic realisations of a more general construction, similar to the morpheme-allomorph distinction. For genitive NPs, I posit the existence of a general genitive construction whose word-order and semantics are underspecified and realised only at the allostructional level depending on which genitive relation is expressed:

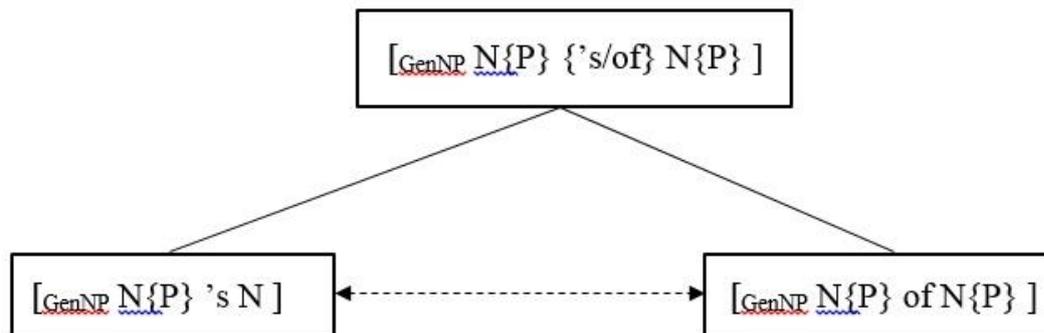


Figure 1: The possessive construction and its two allostructions

By positing such different levels of analysis, and rather than stipulating entirely different constructions, it is possible to capture the commonalities as well as potential differences among constructional variants.

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Two Russian quasi-synonymic tautologies, their syntax and semantics

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One approach to studying tautologies presupposes a conventional meaning that exists in a certain language [Wierzbicka 1987; 1991]. On the other hand, an alternative analysis is centered on universal principles proposed in [Grice 1975; Levinson 1983; Ward, Hirschberg 1991] inter alia. The goal of our study is to take into account both approaches in describing both language-specific and general features of the two Russian tautologies (1-2):

(1)
Ivan est' Ivan
Ivan BE-3.SG Ivan
'Ivan is Ivan'

and

(2)
Ivan 'eto Ivan
Ivan PRO.DEM Ivan
'Ivan it is Ivan'

Formally, both patterns equally utilize a repeat of syntactic phrases, but differ in copulative elements in-between. While the former uses a widely distributed across the globe copulative strategy, the latter is more language-specific that influences the semantics of the first pattern as well. In the presentation, we describe their syntactic and semantic features based on the data from the Russian National Corpus. The paper discusses a) diachronic milestones in the development of these two tautologies in Russian; b) syntactic constraints on the repeating phrases in both structures; c) semantic and pragmatic features of the two types. We argue that (1), *X est' X*, most often appeals to different components of X's meaning (e.g. its connotations), while (2), *X 'eto X*, expresses the subject's identity to itself, being a tautology in the Wittgensteinian sense.

On the interaction of verbal, prepositional and constructional semantics: the case of the (progressive partitive) *an*-construction in German

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Background In German, certain transitive verbs like *schreiben* 'write' or *ess-en* 'eat' allow the transitive oblique alternation that involves the preposition *an* 'at, on'. The direct object of a prototypically transitive verb can be expressed as the internal argument of the prepositional phrase headed by *an*.

- | | | | | | | |
|-----|----------------------------|-----|---------|--------|--------------|--------------|
| (1) | Paul | hat | einen | Song | geschrieben. | |
| | Paul | has | a.ACC | song | written | |
| | 'Paul has written a song' | | | | | |
| (2) | Paul | hat | an | ein-em | Song | geschrieben. |
| | Paul | has | at.PREP | a-DAT | song | written |
| | 'Paul was writing a song.' | | | | | |

Previous approaches This alternation is usually assumed to involve an aspectual difference (Krifka 1992; Filip 1999; Rostila 2007). The crucial observation is that (1) implies that the action denoted by the verb was completed and the song was finished. In contrast, the prepositional *an* variant in (2) is compatible with the scenario that only a part of the song was created. That is, alternating transitive verbs receive a progressive-partitive interpretation in the *an* construction (Engelberg 2007).

The data and the puzzle The results of a comprehensive corpus-based investigation reveal that an appropriate description of the *an*-construction cannot be confined to the alternating transitive verbs and the aspectual difference. First, alternating verbs with a prototypical incremental theme argument like the verbs of creation or consumption (*schreiben* 'write', *bauen* 'build'; *essen* 'eat', *trinken* 'drink') that were taken to be central in the *an* construction co-occur only rarely with *an*. Instead, verbs that involve a repetitive or a 'bit-by-bit' interpretation like *nippen* 'sip' or *knabbern* 'nibble' and do not necessarily entail incremental change of the object are more attracted to the *an*-variant (cf. Perek (2014) for similar results for the English conative construction). Second, there are differences on the level of verb classes: verbs of creation (*stricken* 'knit', *basteln* 'craft') appear more often in the *an* construction than verbs of reduction (*schneiden* 'cut', *mähen* 'mow'). Third, there is a group of non alternating verbs that govern the *an*-phrase, e.g. verbs denoting general activities (*arbeiten/tüfteln* 'work on', *werkeln* 'potter about') or mental processes (*knobeln/puzzeln* 'puzzle over', *forschen* 'research'). These verbs do not involve incremental interpretation and cannot be captured as a part of the alternation illustrated in (1)-(2). Finally, there seems to be a difference in the selectional preferences of the verbs depending on their argument structure. For example, alternating verbs *stricken* 'knit' and *basteln* 'craft' select less concrete entities as their prepositional objects in the *an*-variant as compared to their transitive usage. That is, in German

one knits scarfs or mittens but 'knits on' abstract entities such as legends or myths. Consequently, the sentences with the an construction are often interpreted metaphorically as in *Der Trainer bastelt an seiner Mannschaft* 'The coach is working on/crafting his team'.

In sum, there are complex interactions between the semantics of individual verbs, verb classes and the meaning of the *an*-variant. The goal of this talk is, therefore, to present the results of an ongoing investigation of the an-construction in German and to discuss how the observed peculiarities in the data can be accounted for in a constructional analysis.

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Topic (Dis)Continuity in Brazilian Portuguese Child-Directed Written Narratives

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In the context of Construction Grammar, information structure (e.g., presupposition and assertion, identifiability and activation, topic and focus) explains why the speaker chooses a particular construction (e.g., passive voice) rather than an alternative one (e.g., active voice) in a given communicative situation (cf. Leino 2013). In general, the same propositional meaning can be expressed by a number of formally different constructions, but their adequacy to a given context depends on the mental states of the interlocutors (cf. Lambrecht 1994). The speaker's assessment of the addressee's mental state at the time of the utterance highly accounts for the difference between adult-to-adult speech and adult-to-infant speech: in order to promote better comprehension, adults tailor their utterances in accordance to the child-addressee's age and linguistic sophistication (cf. Clark 2009). Given this fact, it is necessary to enlighten, from a constructionist point of view, the role of information structure in child-directed speech. In order to do so, this paper aims to map and examine a number of different information structure constructions occurring in Brazilian Portuguese award-winning picture books (i.e., child-directed written narratives), as exemplified in (1) and (2):

(1) PASSIVE VOICE construction

Para casar com ela, ele tinha enfrentado mil perigos, derrotado monstros, sido ajudado por uma fada, tudo aquilo que a gente conhece das histórias antigas que as avós contavam e que os livros trazem cheios de figuras bonitas e coloridas. (Machado 2010: 9)

'In order to marry her, he had faced a thousand dangers, (he had) defeated monsters, (he had) been aided by a fairy, all that we know from the old stories that the grandmothers told and which the books bring filled with beautiful and colorful figures.'

(2) LOCATIVE INVERSION construction

Do lado da casa dela morava um coelho branco, de orelha cor-de-rosa, olhos vermelhos e focinho nervoso sempre tremelicando. (Machado 2011:7)

'Right next to her house lived a white rabbit, with pink ears, red eyes and an always trembling nervous snout.'

In (1), the use of the passive voice construction (*sido ajudado por uma fada*) allows the maintenance of the topic-NP in the subject role. In (2), the NP in the inverted subject role (*um coelho branco...*) conveys new information (i.e., it is introduced on the scene referred to by the sentence initial locative). In Brazilian Portuguese, speakers favor the final position in the utterance to convey new information; thus, the use of the locative inversion construction can be interpreted as a strategy to facilitate the processing of the new information by the child-addressee. This paper, then, is an attempt to broaden the insights on the role of information structure in the formal structuring of sentences, concerning child-directed written narratives.

Keywords: Construction Grammar; information structure; sentence grammar.

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Translating Constructions: Norwegian Compounds and their Russian Equivalents

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With the increasing interest in Construction Grammar and the creation of constructions for a number of languages (Lyngfeldt et al. 2018) the question of how to translate constructions from one language to another is becoming more important. The present paper addresses this question on the basis of an empirical study of Norwegian compounds and corresponding constructions in Russian. It is argued that (a) general syntactic rules are insufficient, (b) detailed semantic analysis is necessary, and (c) the semantic analysis must pay equal attention to constructions in the source and target languages.

One striking difference between Germanic and Slavic languages concerns the abundance of compounds in Germanic and its relative scarcity in Slavic. While this is well known, contrastive studies of compounding in Germanic and Slavic are few and far between. In order to fill this knowledge gap, a database of 5,000 Norwegian compounds and their Russian equivalents from six works of fiction was created. Comparing Norwegian and Russian is possible because there is a Russian-Norwegian parallel corpus, but the conclusions are likely to carry over to Danish and (Finland) Swedish and other Germanic languages.

The investigation shows that Norwegian noun + noun compounds frequently correspond to the following Russian constructions:

- (1) a. Adj + N: *gullring* – *zolotoe*_{ADJ} *kol'co*_N 'golden ring'
- b. N + NP_{GENITIVE}: *bilselger* – *prodveca*_{CON} *mašin*_{NP-GEN} 'car salesperson'
- c. N + PP: *nøkkering* – *kol'*_{CON} *dlja*_P *ključej*_{N-GEN} 'key chain'
- d. Compound: *dampskip* – *paroxod* 'steamboat'
- e. Single word: *jernbanestasjon* – *vokzal* 'railway station'

Since one Norwegian construction corresponds to several Russian constructions, simple syntactic rules are insufficient for the translation of compounds. Detailed semantic analysis of the non-head and head components of the compound, as well as the relation between them reveals that prototypical contrastive patterns can be established. For instance, compounds where the non-head is a material that the head is made from, typically correspond to the adj + N construction in Russian, as shown in (1a), where the ring (the head) is made from gold (the non-head in the Norwegian compound).

However, statistical modeling (CART, Strobl et al. 2009) shows that a detailed semantic analysis of the Norwegian compounds is not sufficient to produce clear rules. Semantic analysis of the Russian constructions is therefore also required in order to tease apart the subtleties of the competing constructions. For instance, the Norwegian compound *tekopp* 'tea cup' may be translated as *čajnaja*_{ADJ} *čaška*_N (adj + N), *čaška*_N *čaju*_G (N + NP_{GENITIVE}), or *čaška*_N *čae*_M (N + PP). The adj + N construction will emphasize the type of cup ("a cup designed for drinking tea"), the N+NP_{GENITIVE} implies that the cup is full, whereas the N + PP construction can be used if the cup is not full.

As a result of semantic subtleties of Norwegian and Russian constructions, a complex picture emerges with numerous low-level correspondences between the two languages. This situation, it is argued, can be insightfully analyzed from the perspective of Construction Grammar (Goldberg 2006)/Construction Morphology (Booij 2010) as a “meta-network” connecting the networks of the source and target constructions. It is furthermore argued that corpus investigations of translated text (Laviosa 1998) offer a welcome addition to the study of constructions in language.

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Russian DF in 20th century: a diachronic approach

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The paper deals with the diachronic analysis of a special type of constructions we call “discourse formulae”. By discourse formulae (DF) we mean multiword isolated and fixed sequences with no slots and variables within their body. The variable part of DF is the context beforehand and sometimes afterwards. So we see DF as constructions on discourse level with the whole previous sentence as the variable. DF are cognate but not identical to routine formulae [Coulmas, 1981], conversational routines [Aijmer, 1996], multi-word items [Moon 1997], pragmemes [Mey, 2001], formulaic sequence [Wray 2002] etc. and function as typical response remarks of agreement, disagreement etc. The pragmatic function of such utterances was brought out also in [Fillmore 1984]. It's important that to describe the pragmatic function and the semantics of DF we should know not only the illocutionary force of the previous speech act but also the speaker's presupposition.

Although now DF form a particular part of Constructicon – a database of form-meaning correspondences for semantically non transparent (non-compositional) multiword linguistic units [Janda et al. 2016] – it's clear that they don't fit its structure. Our goal is to create a special database of Russian DF. We have formed a list of about 3000 DF semi-automatically extracted from drama texts of the 19-21 centuries from several resources [Lubimovka 2018, Russian Drama Corpus 2018]. The DF list has a non-homogenous historical structure and shows that DF undergo changes within a short period of time.

Our calculations are made on texts of Russian National Corpus. The size of this part of the corpus is about 115 mln tokens. We divided the texts into 10 parts corresponding to decades. We found that more than one third of our list of DF (about 1400 units) is used throughout the entire 20th century (*ni s togo ni s sego*, lit. 'for no reason at all'; *nichego ne podelayesh'* lit. 'there's nothing to do about it'). In addition we have found specific DF that were used only until 1930s (*pokorno vas blagodaryu* 'I thank you kindly'), 1940s (*to-to vot i yest'* 'that's just it'), 1950s (*vot to-to i yest'* 'that's what it is'). Our list does not contain any units that passed out of use in the second half of the century. Conversely, we have found several units that appeared in the language only in the second half of the 20th century but not earlier. The middle of the century becomes the main frontier when the old norm of the 19th century goes out of use and the DF of the new language penetrate into written speech.

This method gives us an opportunity to identify the dynamic nature of DF and mark mechanisms of pragmatic and semantic changes. Also it makes possible to find the evidence of Jespersen's Cycle [Dahl, 1979] and what DF are substituted with if they go out of use.

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A collocational analysis of nominal adverbs in Estonian

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Riho Grünthal (2003: 26) states that there are no absolutely clear boundaries between adpositions, nouns and adverbs in Finnic languages". The partial productivity of the adverb class and its continuing supplementation by case forms of nouns is a characteristic feature also in Estonian, and the boundary between nominals and adverbs is rather unclear. Hence, there are words in modern Estonian appearing both as standard nouns and (sometimes in fixed expressions) with more abstract meanings. To separate the less established adverbs (or the less clear cases) from the established adverbs, I use the term "nominal adverb" for the former group. The most productive sources of adverbs are without doubt the interior and exterior locative cases, i.e. illative, inessive, elative and allative, adessive, ablative, respectively. Some adverbs display a whole paradigm, e.g. *esiplaanile* [foreground-ALL] 'to foreground' – *esiplaanil* [foreground-ADE] 'on foreground' – *esiplaanilt* [far-ABL] 'from foreground'; some adverbs have bipartite serials as *kühmu* [stooped-ILL] 'go stooped' – *kühmus* [stooped-INE] 'stooped'. The partial declinability can be seen as a further factor that relates these adverbs with nouns (Veismann, Erelt 2017).

To my knowledge, the other oblique cases, the special cases (Est. *erikäänded*), essive, translative, comitative, abessive, terminative, have not been considered from the "adverbial series" point of view. However, the series of nominal adverbs in special cases may for instance have antonymous (1a-b) or synonymous (2a-b) relationships. It appears that the antonymous pair *tõrgeteta* [failure-ABE] : *tõrgetega* [failure-COM] can mutually be switched in the same constellation, whereas the synonymous adverbs *lõppakordina* [final.chord-ESS] 'in the end' : *lõppakordiks* [final.chord-TRA] 'in the end' are used in slightly different constructions, and the interchange is not possible:

(1a) *Mobiilirakendus* *töötab* *tõrgeteta*.
mobile.application work-3SG failure-ABE
'The mobile application works without glitches.'

(1b) *Kui kesklukustus* *töötab* *tõrgetega*, *pöörduge* *spetsialistide* *poole*.
If central.locking work-3SG failure-COM, turn-2PL specialist-PL-GEN to
'If the central locking does not work smoothly, turn to the specialists.'

(2a) *Lõppakordina* *toimus* *läbirääkimistel* *bankett*.
final.chord-ESS happen negotiations-GEN banquet
'As the closing chord, a banquet took place at the negotiations.'

(2b) *Lõppakordiks* *sai* *üritusel* *ühine* *tantsude* *õppimine*.
final.chord-TRA become event-ADE common dance-PL-GEN learning
'To the closing chord became the common learning of dances at the event.'

The aim of my presentation is to establish the possible nominal adverbs in special cases in Estonian and to elucidate their semantic-syntactic properties. The focus will be on the collocational behaviour of these words but also on constructional patterns on the basis of the corpus query software Sketch Engine (Kilgarriff et al. 2004) and the word sketches depicting a word's collocational behaviour. The analysis is based on the data extracted from the largest up-to-date corpus on Estonian, the Estonian National Corpus 2017 including 1,347,872,028 tokens.

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Explaining and representing modal variations: an example of two impersonal modals expressing necessity in Russian

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In this presentation I will talk about the interaction of modality of obligation expressed by impersonal modals in Russian, predictability of the meaning of these modals, and propose a way to represent how the meaning can change and how it can be influenced by the context.

In Russian, modality (i.e. necessity, possibility) can be expressed by a wide range of modals. These modals have different forms (verbal: *prihodi'tsja* “has to, must be”; adjectival: *dolžen* “must”; predicative: *nado* “it is necessary to”.) and therefore can't be described as a single *modal category* (as it can be the case in some languages, based on syntax, for instance in French, English, or German,..). Taking Russian syntax into account, we can distinguish two constructions: personal modals and impersonal modals. The first construction implies a modal agreeing with a nominative noun phrase:

- 1) Ty **dolžen** ponjat'.
2sg.nom dolžen.adj understand.inf.pf
You must/have to understand.

The second construction presents a non-agreed modal and a dative noun phrase:

- 2) Vam **nado** horošo učit'sja.
2pl.dat nado good.adv study.inf.ipf
You have to study well.

This syntactic difference implies some semantic and pragmatic differences. For instance, it is known, that a personal modal can express epistemic modality (as well as deontic and alethic), but an impersonal one cannot express epistemic modality (B. Hansen, 2001).

I will focus on the description and representation of the modality expressed by two impersonal modals: *nado* and *nužno*.

Both of them are impersonal and are often described as synonyms. For example, in the following sentence, it would be hard to tell the difference between the use of *nado* or *nužno*, without further mentioning or interpreting the sentence:

- 3) Emu **nužno/nado** rabotat'.
3sg.dat nužno/nado work.inf.ipf
He has to work.

In this presentation, I will present different variations in the indicative clauses, both affirmative and negative. This will allow me to show 1) why, at first, they seem so similar 2) what kind of modality

nado and *nužno* express, and how we can describe them, 3) what role, based on a few examples, the semantic, syntactic, and pragmatic levels play in the expression of modality.

For example, I will explain why the modal *nado* in a negative sentence, and depending on the context, can express absence of necessity or interdiction, while *nužno* can only express the first meaning (absence of necessity):

- 4) Tebe ne **nado** èto delat'.
2sg.dat neg *nado* this do.inf.ipf
You don't have to/ mustn't do it.

- 5) Tebe ne **nužno** èto delat'.
2sg.dat neg *nužno* this do.inf.ipf
You don't have to do it. (it is not necessary for you to do it)

I will also focus on the reasons why the speaker preferred to use one modal instead of the other, in some specific contexts, if both of them can be used.

I will then propose a formal way of representing the semantic differences between the two modals, using a single schema articulating the different points which influence the meaning of the modal: time, subjectivity, situation. Based on the work of A. Culioli, this schema, called *bifurcation* (A. Culioli, 1994), allows to represent which operations take place and how they are organized.

This schema represents three potential positions: the first one represents the moment of utterance and branches into two positions: one position, where the process can be validated (p), and another position, where anything else than the process can take place (p'). These last two positions aren't taking place at the moment of utterance but could happen afterwards.

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My heart is burning: Semantic shifts to and from pain domain

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Due to its specific nature, the notion of “pain” is of particular interest for research in cognitive linguistics. This universal and basic area of human experience is totally dependent on language, since subjective painful sensations of different people cannot be observed, verified or compared except through their verbalization. Thus, our access to others' pain is mediated through language. This explains both the role of PAIN-concepts in philosophical debates on the possibility of inter-subjective understanding in general (cf. Wittgenstein) and the importance of correct and consistent semantic analysis of verbal descriptions of pain for medical diagnostics (cf. Melzack 1975). Less attention so far has been paid to the proper linguistic study of pain systems.

On a purely linguistic ground, however, pain domain seems to be unique as well. As opposed to other semantic domains, the pain zone normally has very few of its own lexical means in languages (like *hurt* or *ache* in English, *schmerzen* or *wehtun* in German, etc., cf. Lascaratou 2007 on Greek) and is generally described metaphorically.

This paper presents the results of an international typological project devoted to the study of pain constructions in a sample of approximately 30 languages. As (Authors 2012) has shown, the types of metaphorical sources for physical pain are consistent throughout the language sample. These are “instrumental destruction” (e.g., Balkar *bašym čančady* lit. ‘my head pricked’), “fire destruction” (Hungarian *égeti a nyelvemet* ‘it burns my tongue’), “sound” (Russian *nogi gudjat* lit. ‘legs are hooting’), “movement” (English *my stomach is churning*), and some others.

This study considers those semantic shifts which result in denoting a state of “emotional pain” associated to specific body parts (cf. Hindi *kalejā kaTtā hai* lit. ‘the liver is cutting’ for ‘to envy’). Cross-linguistically, they seem to derive from the same groups of verbs. Our analysis shows, however, that the meaning of emotional pain cannot be considered either a secondary metaphor on the basis of physical pain, or an independent semantic shift. In fact, native speakers of different languages do not seem to distinguish accurately between emotional and physical pain. This means that there is no shift from one domain to another in this field (cf. Lakoff 1987, Croft 1993) and, therefore, no metaphor in the strict sense. (Interestingly, this view is supported by neurophysiologic investigations postulating that there are brain centers responsible both for pain and emotions).

There are, however, cases of a regular semantic shift from physiological domain to the emotional one, cf. English *my fingers are itching (to do smth.)*, Spanish *los pies me hormiguean* lit. ‘my feet are swarming with ants’ (e.g., for the desire to dance), Agul (Daghestanian): (Converb) + *ugaa zun* lit. ‘I am burning’ (for the impatience to do smth.). This shift is discussed in greater detail; it is argued that this combination of metaphor and metonymy differs from what was described previously (as “metaphonymy” in Goossens 1995, or “metaphor remetonymization” in Riemer 2001) and displays some characteristics of “incipient grammaticalization” (cf. Hopper, Traugott 1993).

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Body Parts Movement Constructions from a Typological Perspective

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The study presents a typological description of constructions (in terms of Fillmore, Kay, & O'Connor, 1988; see also Hoffmann & Trousdale, 2013) that express non-conventionalized movements of body parts (*swing one's feet*, *stretch one's arms*, etc.). Body parts constitute a peculiar class of mobile objects whose motion is controlled by a human owner through muscular efforts. Unlike other objects (such as cups or cupboards) that are set in motion by an external physical force, body parts are not detached from their initial location and do not change it drastically. Rather, they move fractionally and along strictly fixed, function-driven trajectories. A motion event of this type is, therefore, lacking the SOURCE component in the Source-Goal diad, characteristic of a prototypical motion event (Jackendoff, 1983).

From a semantic point of view, constructions denoting body parts movements are highly non-compositional (Podlesskaya & Rakhilina, 1999), cf. *bury one's face in one's hands*. Moreover, languages lexicalize these situations differently. On the one hand, a description of such a relocation may require a unique lexeme that is not used outside the semantic domain of body parts, e.g. the Russian verb *otopyrit'* 'stick out' is used exclusively with body parts such as a pinky finger, buttocks, and lips, cf. *otopyrit' mizinec* 'stick out a pinky (while holding a small object such as a cup of coffee)'. On the other hand, the same movement of the little finger can be described by a regular verb of motion. However, regular verbs, such as 'lift' (e.g. SRP *podignuť*, ITA *alzare/ sollevare*), 'set out' (UKR *vidstavvyty*), or 'unfold' (CHI *zhǎnkāi*) little finger can be used only metaphorically; they will necessarily go through significant semantic shifts and partial bleaching (Traugott & Heine, 1991).

In this study we set off to examine constructions of non-conventionalized body parts movements in over 30 languages from diverse families. We aim at several objectives. First of all, we identify the parameters relevant for colexification (François, 2008) of movement situations that involve body parts (e.g. the type of the possessor, the type of the body part, its spatial orientation and the type of its movement). Second, we develop a searchable database that enables a sophisticated data analysis and visualization. Specifically, we apply the Louvain Method for community detection (Blondel, Guillaume, Lambiotte, & Mech, 2008) to identify stable clusters of movements.

The investigation is conducted within the theoretical framework of lexical typology described in (Rakhilina & Reznikova, 2016). Dictionaries and corpora serve as a point of departure for collecting data where possible. However, the study is largely based on data elicited by means of translational questionnaires accompanied by video clips.

Besides the online database, the results include establishing clusters of movements and identifying patterns within each cluster. For example, similar movements of clenching one's fists or teeth can be covered by a single lexeme (cf. ENG *clench*, ITA *stringere*), or contrasted lexically (cf. EST *pigistama* vs. *suruma*, AZE *yumruqlamaq* vs. *sixmaq*).

Our study demonstrates that, despite their non-compositional nature, constructions describing body parts motions adopt similar strategies across languages and form construction families (Croft, 2009) that can be automatically detected.

Abbreviations

AZE - Azerbaijani
CHI – Chinese
ENG - English
EST - Estonian
ITA – Italian
RUS – Russian
SRP – Serbian
UKR – Ukrainian

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Semantics of a list in a box

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In this oral presentation I make a semantically orientated analysis of a list construction in Finland-Swedish Sign Language (FinSSL). That is a common phenomenon in sign languages where the listing is made through element placements onto outstretched fingers of one of the hands of a signer. These elements can be anything from living human beings to groceries to buy and are placed in a specific order, e.g. siblings in their birth order, chronologically appearing elements in the current discourse, or what appears to be a random one if the items come to the signers mind as the discourse goes. (Siltaloppi, forth.)

The analysis looks at the semantics, and variabilities in form, of the list construction. In them one of the hands is an active placer and the other, with its fingers, a more passive target that gives the placed elements a location of reference. The location can, later in discourse, be used by any participant of the conversation as reference point. As stated above, the placed referent can be anything from siblings to groceries and can thus have different roles. It can e.g. be the topic of the discourse like siblings if the conversation is about the family of the signer. Or it can have a semantic role of an object or e.g. an NP head. (Siltaloppi, in prep.) Also, the actors participating to the construction have their own semantic meanings. The list construction points and guides the discourse and has "a crucial role in determining the contextual appropriateness of the utterance" (Rocci&Luciani 2016:58).

I look at the list construction in different contexts taken from a corpus data with both free face-to-face discussions in FinSSL and from Swedish to FinSSL interpreted contexts from everyday situations. Then, I show how these can be put in a semantic frame (Fillmore (2006 [1982]:397). The list construction and its variables, roles, and functions is presented with a notation system of boxes-within-boxes (Fried&Östman 2004:11–86). In these boxes, the elements needed for signing the list construction are shown as visually readable as possible in a situation where a three-dimensional language is analyzed on paper.

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Mapping the semantics of contrastive negation across languages

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Contrastive negation refers to constructs that combine an affirmed and a negated part so that the affirmed part replaces the negated one in the discourse universe (Gates Jr. & Seright 1967; Horn 1985; McCawley 1991; Author 201X). In European languages, ways of expressing contrastive negation are numerous, as the English examples in (1)–(2) illustrate:

- (1) *Shaken, not stirred.*
- (2) *Not stirred but shaken.*
- (3) *Not stirred—shaken.*
- (4) *I don't want it stirred—I want it shaken.*

Of particular interest in contrastive negation constructions has been the status of conjunctions like the corrective *but* in (2): while in English, no distinction is made between the adversative and corrective meanings, in many European languages such a distinction is made (Anscombe & Ducrot 1977). Thus in (5) and (6), English has the same conjunction while Spanish has two different ones: *pero* in the adversative context in (5), *sino* in the corrective context in (6). It is the corrective context that will be of interest with regard to contrastive negation.

- (5) a.

No	es	francés	pero	habl-a	francés.
NEG	be.3SG	French	butADV	speak-3SG	French

b. *He is not French **but** he speaks French.*
- (6) a.

No	es	francés	sino	alemán.
NEG	be.3SG	French	butCORR	German

b. *He is not French **but** German.*

This study is a cross-linguistic corpus investigation of contrastive negation in 11 languages, involving both languages that make the split between 'butADV' and 'butCORR' (Estonian, Finnish, German, Italian, Spanish, Swedish) and languages that do not (Danish, Dutch, English, French, Portuguese). The data comes from the EuroParl corpus that represents proceedings of the European parliament (Koehn 2005). The analysis is both qualitative and quantitative, using Multiple Correspondence Analysis (Greenacre 2017; Glynn 2014) as an exploratory statistical tool to visualise the semantic and pragmatic differences between the different constructions in a probabilistic semantic map (Croft & Poole 2008; van der Auwera 2013).

The results of the analysis show differences in the degree of constructionalisation of the corrective conjunctions. The biggest differences relate to the additive sub-type of contrastive negation in which there is a restrictive element (e.g. *only*) under the scope of the negation (e.g. *She speaks not only French but also German*). Most of the corrective conjunctions in the languages being studied are available also for additive cases of contrastive negation, and indeed

for the majority of them the additive contexts make up a large share of the total use of corrective conjunctions in the data. However, in Italian, the ‘butCORR’ conjunction *bensi* shows a dispreference for the additive type. In Portuguese, by contrast, there is a construction [*não só X como também Y*] (lit. ‘not only X as also Y’) that is specialised for additive contexts and which recruits its conjunction from the domain of adverbial subordination, possibly analogously with the construction [*tanto X como Y*] ‘both X and Y’. In Finnish, on the other hand, particularly additive but also other cases of contrastive negation are frequently translated as other constructions, possibly to avoid translationese. All in all, the results demonstrate the usefulness of probabilistic semantic maps in characterising the productivity of constructions in a language.

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Irish constructions with *téigh i* 'go in'

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Irish has a multitude of idiomatic constructions whose meanings cannot be derived with certainty from their components but depend on their combination and which, at the same, time belong to the main methods of expressing predicates and of modifying predicate semantics. The present paper presents a qualitative analysis of a construction *téigh i X* lit. 'go in X' where X is a predicate noun. The paper aims to identify the nouns that can be used in the construction, the ways the construction interacts with other components in a sentence and its meanings. The data comes from *Nua-Chorpas na hÉireann/New Corpus for Ireland* (www.corpas.focloir.ie) which contains mainly written texts from three major dialects of Irish, marked for native/non-native speakers. For the purposes of this paper only the data from the native speaker part of the corpus was selected.

In general, the verb *téigh* 'go' is used with prepositions of direction: *go* 'to' and *chuig/chun* 'to'. However, in certain constructions it can also be used with the preposition *i* 'in' which does not indicate direction, but rather location. The meaning of 'he went into a room' would be rendered as *chuaigh sé isteach i seomra* lit. 'went he insidewards in room', so that the motion meaning is expressed by the adverb *isteach* 'insidewards'. The combination of a motion verb *téigh* 'go' with a locational preposition *i* 'in' alone must signal non-compositional, metaphoric meaning:

- *na* *coiscéimeanna* *ag* *dul* *i* *léig*
DEF footstep.PL PROG go.VN in neglect
 '[One hears] the footsteps fading'

An analysis of the instances of this type of constructions in the corpus allowed for distinguishing a number of semantic types of nouns typically occurring in this construction denoting:

- 1) interaction: *téigh i dteagmháil* 'get in touch, contact' lit. 'go in contact', *téigh in iomaíocht* 'compete' lit. 'go in competition';
- 2) effect: *téigh i gcion* 'take effect' lit. 'go in affection, effect', *téigh i bhfeidhm* 'impress' lit. 'go in function';
- 3) increase in the degree of a quality or tendency towards a state: *téigh i méid* 'grow bigger' lit. 'go in amount, quantity', *téigh i léig* 'decline' lit. 'to go in decay, neglect'.

A further search on whether these semantic types are coherent with the transitive/intransitive status of the construction and, in the case of transitive constructions, the way they govern an object, presented evidence that there is such coherence: type (1) constructions govern an object with *le* 'with', type (2) – with *ar* 'on' and type (3) are intransitive.

Also, the search query included only nouns with the preposition *i* (e.g. *i dteagmháil*) in order to detect any other verbs which could possibly combine with the prepositional phrase. Indeed, it appeared that in (1) the prepositional component can also combine with the substantive verb *bí* 'to be' describing a resultant state, e.g. *tá sé i dteagmháil le Seán* 'he is in touch with Seán', whereas other types only allow for the combination with *téigh*, thus demonstrating a higher degree of boundedness.

The three types of the *téigh i* 'go in' constructions therefore differ semantically, syntactically and in the degree of cohesion.

It should be noted that type (3) also has a scalar component in that the predicate noun denotes an increase in the degree of a parameter, cf. *téidh i méid* 'grow bigger' lit. 'go in amount, quantity'. Some of the most frequent nouns in the construction are so-called nouns of degree, a morphological category that construes increase in a quality as a nominal. This may result in coercion effects, e.g. *aois* 'age' in *téigh in aois* lit. 'go in age' actually means 'get old', i.e. *aois* is interpreted as an increase in the degree of the quality of "being old" and not just in age.

Two constructions of the same pattern form a special type – here the prepositional object does not refer to a situation and has a complement in the genitive:

- *téigh i mbun X* lit. 'go in base of X' describes the onset of an action, e.g. *téigh i mbun oibre* 'set to work',
- *téigh i muinín X* lit. 'go in trust of X' means 'resort to something', e.g. *téigh i muinín an fhornirt* 'resort to violence'.

In these constructions, the objects of *i* 'in' refer not to the predicate situation, but to a phasal modification of this situation, which in its turn is referred to by the predicate noun in the genitive. These constructions demonstrate a higher degree of desemanticization of the nouns in the prepositional object position and therefore an even higher degree of cohesion of their components.

The unusual combination of a motion verb with a non-motion preposition in the construction *téigh i X*, the non-compositional meaning, the subtle differences between its types and possible coercion effects indicate that the different types of this construction must be stored as units in the mental constructicon. Irish mostly reserves verbal morphology for processes but prefers to describe other types of predicates as construction. This makes constructions of the type discussed in this paper an extremely wide phenomenon, but their periphrastic nature means that in linguistic analysis they may get stuck somewhere between syntax and lexicon and viewed as belonging to neither of them. A constructionalist approach, however, allows for an adequate analysis and description of these elements.

A typology of e-sites in viewpoint constructions

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In the conclusion to the volume Dancygier et al. (2016), Dancygier (2016: 281) writes:

‘Viewpoint is clearly a conceptual phenomenon [...], which imposes some limitations on what can be worked on. However, [...] one can see how widespread viewpoint phenomena are and how unlikely it is that linguistic investigation will identify what would be some cross-linguistically common level of viewpoint expression.’

At some level this is undeniably true: the way in which speakers interact and engage with language is individual and inherently subjective (cf. Dor, 2015), and, therefore, the number of diverse viewpoints in language is potentially as diverse as the number of speakers. But on the other hand, the ways in which languages allow speakers to adopt non-current speaker perspectives, the types of perspectives involved and the structural means to signal these are actually surprisingly regular. If we cannot describe these regularities sufficiently with our current cognitive linguistic models, this does not suggest that the linguistic expressions of viewpoint phenomena are too heterogeneous to be captured. It means there is something wrong with our theoretical assumptions about the linguistic expression of viewpoint.

In the present paper I explore this claim, by taking a new look at the notion of e(laboration)-site in viewpoint constructions. An e-site specifies a dependent element, and Langacker (1987) defines the notion of dependence as follows:

‘One structure, D, is dependent on the other, A, to the extent that A constitutes an elaboration of a salient substructure within D’

Specifically, I will address the proposal in Vandelanotte (2008) and Vandelanotte and Davidse (2009) that in reported speech constructions as in (1), the dependent element D is the reported message clause, and that the e-site is therefore formed by ‘I’m leaving’.

(1) He said “I’m leaving” (Vandelanotte and Davidse, 2009: 791)

I propose that the reverse conceptual dependency holds: in (1), the e-site is formed by the matrix clause, i.e. ‘He said’. First I defend the plausibility of this analysis on the basis of the semiotic, syntactic and information structure properties of the reported message clause. Then I argue that this re-analysis allows us to examine functionally equivalent elements to the matrix clause in a much more inclusive way, which, I suggest, demonstrates cross-linguistic patterns that would otherwise be missed.

Based on a cross-linguistic sample of Australian Aboriginal languages (n = 15), I develop a typological (radical) construction grammar account (Croft, 2001) in which the syntactic status of attributed constructions determines the grammatical structure of the complex clauses they occur in and relate this to five major types of reported speech constructions: reportative evidentials, direct

speech, indirect speech, bi-perspectival speech (Evans, 2013) and free indirect speech. I propose that this step also solves the problem Verhagen (2016: 2) flags, that ‘the generally used category of Free Indirect Discourse has so far escaped a rigorous definition’.

In doing so, the paper aims to bring together recent advances in the typology of perspective with a cognitively-based viewpoint-sensitive construction grammar.

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Mapping it all out: Delineating the role of metaphors and frames in a constructional approach

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How can metaphor best be included in constructional semantics? One solution is to define separate, metaphoric argument structure constructions which directly link constructional form to specific metaphors. Such an approach analyzes literal and metaphoric interpretations of a given phrase separately; for example, a literal Caused Motion construction and a corresponding metaphoric Caused Change of State is Caused Change of Location construction. We argue such additional constructions are unnecessary, and that metaphor, frame, and construction should be treated as separate representations.

During sentence comprehension, we seek the most coherent interpretation. When the semantics of the phrasal construction is incongruous with that of the lexical elements filling particular constructional slots, a literal reading is less interpretable than a metaphoric reading (Stickles et al., 2016). Both sentences in (1) use the same syntactic pattern, NP1 Verb Preposition NP2. These sentences instantiate a Caused Motion construction, with the semantics of a trajector (in the subject position), caused motion (elaborated by the verb *pushed*), direction of motion (the preposition) and a locative goal (the indirect object).

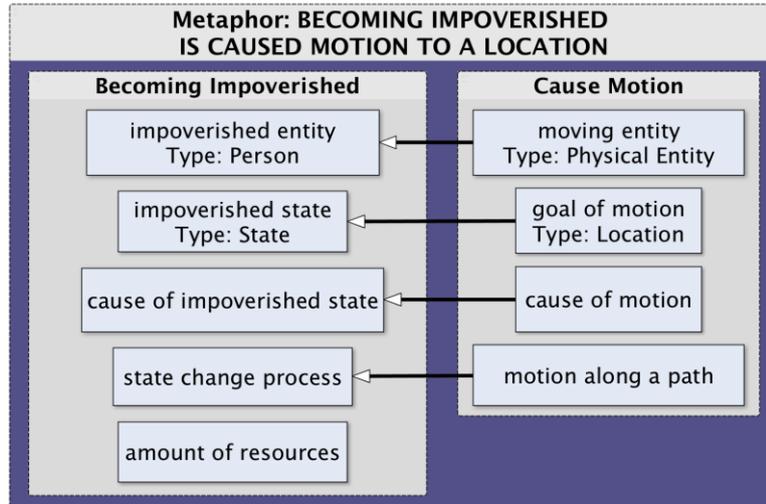
- 1) a. They were pushed into a hole.
b. They were pushed into poverty.

In (1a), the goal is a Physical Location (*a hole*) whereas in (1b), the goal is not (*poverty*). Instead, *poverty* is a type of abstract State. Thus, the semantics of *poverty* is incongruous with the prototypical semantics of the locative goal. In contrast, a metaphoric reading is sensical: *poverty* is a metaphoric “location” into which a person can enter. This is an instance of the metaphor CAUSED CHANGE OF STATE IS CAUSED CHANGE OF LOCATION (Lakoff & Johnson 1999), or more specifically, BECOMING IMPOVERISHED IS CAUSED MOTION TO A LOCATION (Dodge 2016).

Furthermore, in the metaphoric reading the other locational elements also map to target domain elements: the person who moves to that location is conceptualized as someone who starts experiencing that state, and the non-volitionality of being pushed maps to their lack of control over this state change.

Crucially, we do not need a distinct metaphor construction that specifies these mappings. Instead, they are handled via the metaphor itself, which is a Source to Target frame mapping (Figure 1).

Figure 1.

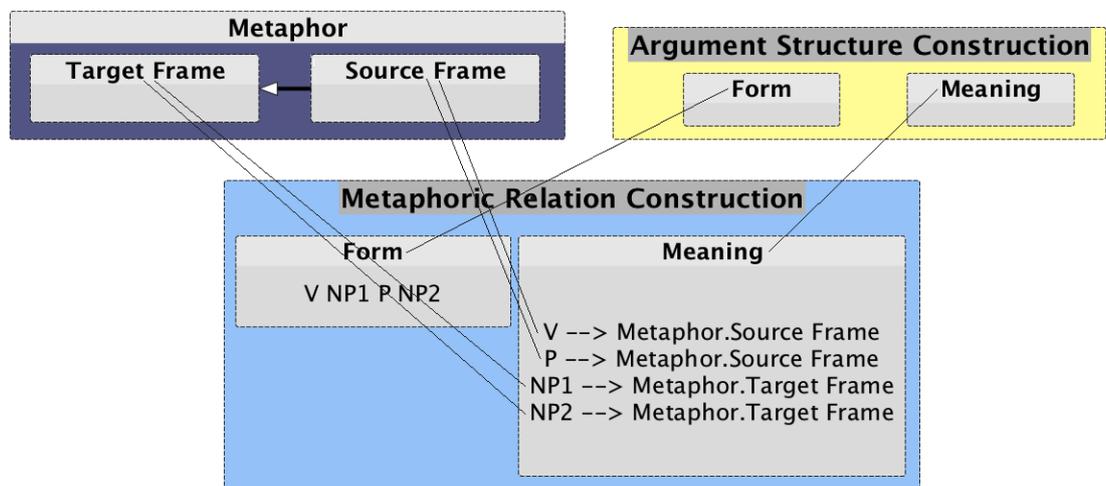


Previous work has shown that metaphor target domains are expressed in predictable syntactic slots (Croft 1993; Sullivan 2013; Dodge et al. 2015). (2a-d) show that metaphorical interpretation can arise in a given construction via any one or more of these slots.

- | | |
|--|--|
| <p>2) a. It pushed them into a hole.
 b. It pushed them into poverty.</p> <p>c. High unemployment spread poverty across the country.</p> <p>d. The news propelled the stock market to a record high.</p> | <p>Literal reading</p> <p>CAUSED CHANGE OF STATE IS CAUSED CHANGE OF LOCATION</p> <p>CAUSED EXTENT OF STATE IS CAUSED EXTENT OF SIZE</p> <p>CAUSED INCREASE IN QUANTITY IS CAUSED INCREASE IN HEIGHT</p> |
|--|--|

The sentences in (2b-d) all instantiate the same Caused Motion construction, but different metaphors. Rather than defining separate constructions, we can capture the metaphoric meanings of (2b-d) by: (1) associating the semantics of the relevant constructional elements with their associated frames; (2) defining general metaphoric relation constructions that specify the 'slots' in which metaphoric language may occur (Figure 2); and (3) evoking the metaphor that provides a coherent interpretation.

Figure 2.



By defining these metaphor-related 'slots', the metaphoric relation construction constrains potential sentence interpretations. Thus the metaphoric reading is emergent, and need not be directly incorporated into the argument structure construction itself.

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Why Can the Verb *Forgive* Be Used in the Ditransitive Construction?

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The central sense of the ditransitive construction ‘NP_X V NP_Y NP_Z’ is argued to be “X causes Y to receive Z.” (Goldberg 1995)

- (1) He *gave* them money.
- (2) Mary *sent* John a letter.

Thus in (1), he caused them to receive money, and, in (2), Mary caused John to receive the letter. That is, the direct object referent is transferred to the indirect object referent. Now, *forgive* occurs in the ditransitive construction.

- (3) I *forgave* him his sin.
- (4) They *forgave* me my debt.

Unlike (1) and (2), however, the direct object referents in (3) and (4) are not transferred to the indirect object referents. Rather, they are originally in the possession of the indirect object referents and seem to be removed from them by the act of forgiving. After all, forgiving someone their sin means that someone will be free of the sin. But if ditransitive *forgive* means removing something, it would contradict the constructional meaning, “X causes Y to receive Z.”

To solve this apparent puzzle, we should review the analysis of ditransitive *save* by Iwata (2012), since ditransitive *save* also seems to mean removal. According to Iwata, ditransitive *save* in (5) denotes the situation in which the indirect object referent can avoid expending a lot of time and energy related to the trouble, thereby virtually receiving a benefit.

- (5) That will *save* me a lot of trouble

This is illustrated as follows.

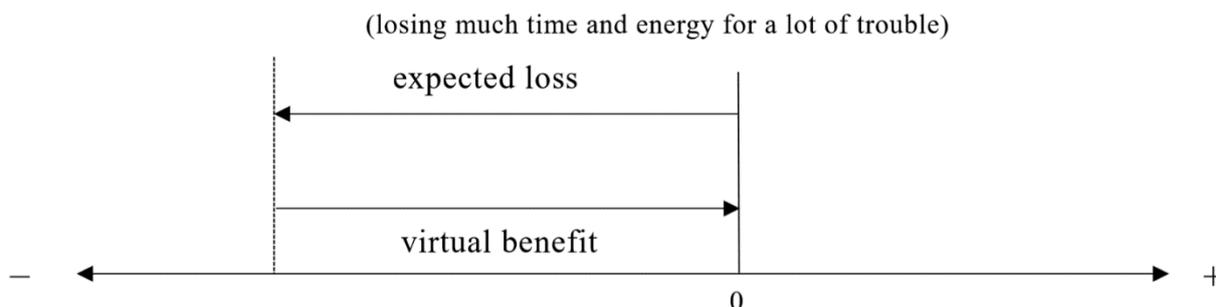


Figure 1: *save* a lot of trouble

This reasoning in Iwata (2012) can be applied to the expression *forgive him his sin* in (3). That is, avoiding the punishment for his sin by being forgiven, the indirect object referent virtually amounts to receive a benefit. This can be illustrated as follows.

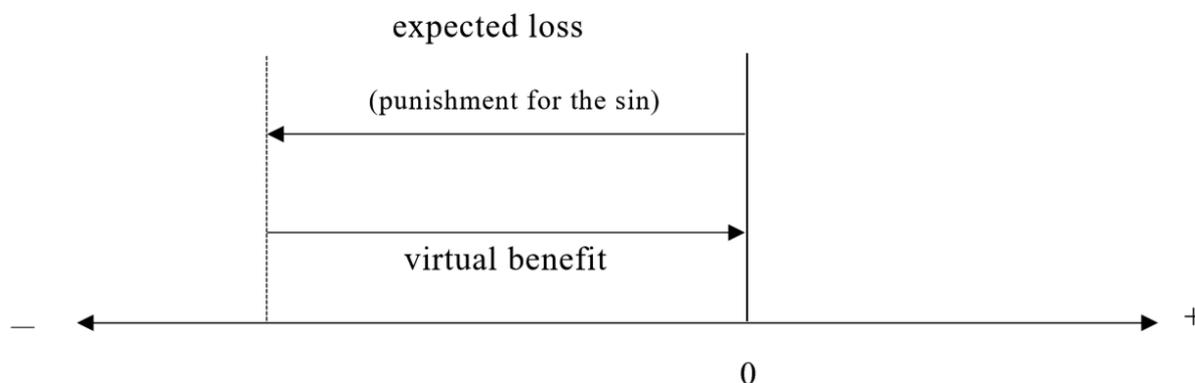


Figure 2: *forgive his sin*

Thus *I forgave him his sin*, as well as *That will save me a lot of trouble*, is semantically compatible with the constructional meaning in that the subject referent causes the indirect object referent to receive a benefit. I will refer to the benefit which the indirect object receives by avoiding an expected loss as a virtual benefit.

Other ditransitive expressions with *forgive* can also be accounted for by the virtual benefit. For example, with *forgive me my mistake*, the indirect object referent will avoid receiving the condemnation or blame, thereby receiving the virtual benefit. In the case of *forgive him his debt*, the expected loss is the payment for the debt, and the amount of money which would have had to be paid is the virtual benefit.

Though the process of the indirect object's receiving the benefit is different from typical ditransitive expressions, there is a certain analogy between ditransitive *forgive* and other ditransitive expressions such as *give*, in that the subject referent causes the indirect object referent to receive a benefit. The semantics of ditransitive *forgive* may seem to be distinct from the central sense of the construction, but it turns out that ditransitive *forgive* can be related to the typical ditransitives.

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Bon appétit in Dutch: one function, many forms

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Eating is often a social event, a social event that is rife with social conventions and norms (Elias 1939). When people in the Netherlands have lunch or dinner together, there is considerable social pressure to postpone starting to eating until all are seated. The habit of praying before the meal is dying out, but most often, still some kind of formula is uttered by all present to explicitly mark the starting point, and it is part of social education to learn to master the rules and habits of the event. At home and in kindergarten, children are taught either a standard utterance or a tailored variant.

There are quite a number of utterances that are used in this situation. One might borrow French *Bon appétit*, one may use the formula that is common in the family (and possibly only there, cf. de Jong 2012), but there are also a number of native alternatives that can be used. Consider the following constructions with forms of the verb *eten* 'to eat'.

- (1) *Eet smakelijk* 'bon appétit'
- (2) *Smakelijk eten* 'bon appétit'
- (3) *Eet ze* 'bon appétit'

The construction in (1) combines an imperative form *eet* 'eat!' with an adverbially used adjective *smakelijk* 'tasty, savory'. Using just the imperative without an adverb (or a modal particle, cf. Vismans 1993) is impossible here, as it would be far too directive, harsh, and threatening to the hearer(s) (Broekhuis & Corver 2018). Example (2) combines the very same adverb with the infinitive form, which can be used as a directive as well (Broekhuis & Corver 2018). Again, an adverb such as *smakelijk* is necessary to mitigate the directive force of the verbal form. The variant in (3) is traditionally (Haeseryn et al. 1997) analyzed as an imperative form plus a third person plural non-nominative personal pronoun ('them'), which again mitigates the imperative force somehow. Alternative analyses have been proposed as well (van der Wouden 2018).

Rather than competing, the variants in (3) live happily together in the speech community (cf. De Smet et al. 2018), together with a great many others; some of the variants tend to get associated with social or regional groups (pictures 1 and 2 show the regional distribution of the variants (1) and (2) above in a large corpus of twitter data). On the other hand, formulas with *smakelijk* are considered to be a breach of good manners in certain circles, as it goes without saying that the food will be enjoyed. But then, other variants are available.

In our presentation, we will elaborate on the linguistic constructions in Dutch that are used to start a meal. We will say more on the division of labor between the variants in terms of geographical and social dimensions, and show once again that "there is more to formulaic sequences than *just* their agreed form, because that form is compulsory associated with an agreed function and context." (Wray 2002, 73).

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A Cognitive Approach to English WH-Dialogic Constructions with Negative Answers

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Negative answers are one of the answer types to English WH-questions. This research on English WH-dialogues with negative answers is expected to explore more general cognitive features of English WH-dialogues. To achieve this goal, this study takes WH-dialogues as dialogic constructions. Accordingly, English WH-dialogues with negative answers, construed as pairings of forms and functions, are fundamentally the varieties of WH-dialogic constructions. For expounding the grounding principle of the focal meaning in an English WH-dialogic construction with a negative answer, this research has proposed “Event-based Figure-Grounding Model” (EFG model for short) as its theoretical foundation. EFG model stems basically from the integration of Event-domain Cognitive Model and other two Cognitive Linguistic theories, namely, the theory of Figure–Ground alignment and the theory of Cognitive Grounding.

In the view of EFG model, the pairing of an English WH-question and its negative answer indicates the categorized relation between “Type” concept and its “instance”. The formation of an English WH-dialogic construction with a negative answer thus implies the following two facts: (i) the answer functions to instantiate or negate the schematic property of the “Type” concept, which is represented by the WH-question event-domain or its focal structure specifically encoded by the WH-interrogative word at the initial place of the question sentence; (ii) the answer serves to specify or negate the Type-Instance relation between the WH-question and the answer.

For the present study, 3,547 English WH-dialogic constructions with negative answers have been collected from the spoken corpus of COCA, with an aim to statistically depict the Type-Instance relations that are revealed at the syntactic, semantic and pragmatic levels of such WH-dialogic constructions.

This research shows that the syntactic resonances between WH-questions and negative answers suggest the Type-Instance relations between these two kinds of utterances. Such resonances can be categorized into four groups, which are focal structure resonances, event frame resonances, both focal structure and event frame resonances, and non-resonances. Correspondingly, in the closed corpus used for this study, the negative answers embody four possible results of semantic instantiation of the schematic “Type” concept of the questions. They are semantic instantiations of focal structures in question event-domains, semantic instantiations of frames in question event-domains, semantic instantiations of both focal structures and frames in question event-domains, non-semantic instantiations. On the pragmatic level, the Type-Instance relations between WH-questions and their negative answers are reflected by the linguistic phenomena of structural couplings between question event-domains and answer event-domains, hence mirroring the ways of interpersonal cooperation between speakers, which are full interpersonal cooperations, partial interpersonal cooperations and non-cooperations.

Key words: negation; event; dialogic construction; the grounding of figure; dialogic resonance; semantic instantiation; interpersonal cooperation

Inferring constructional meanings

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In usage-based construction grammar, it is commonly assumed that constructional meanings can be characterised as semantic frames, and that these meanings can be „read off“ (Gries 2006: 136) from the semantics of typical lexical instantiations (e.g. lemmas occurring in the verb slot of a schematic argument structure construction). However, lexical fillers of constructional slots usually come from a range of *different* semantic classes, and, conversely, not all members of the (supposedly) *same* semantic class combine with the same range of grammatical constructions. This raises questions relating to constructional homonymy or polysemy, to the degree of abstraction of constructional generalisations and to potentially conflicting explanations in terms of lexical valencies. Over the years, several different proposals have been made in the constructionist literature regarding the separation and interaction of verbal and constructional meaning in order to address these issues (e.g., Goldberg 1995; Boas 2003; Croft 2003; Langacker 2008; Engelberg et al. 2010; Herbst 2011; Perek 2014, among others), but the relation between supposedly verbal and supposedly constructional properties still remains controversial.

Set against this background, the talk illustrates that constructional meaning cannot always be “read off” directly from tabulations of lexical fillers, in the sense that it will simply emerge from lists of decontextualised frequency counts or collexeme rankings. Instead, the identification of meaningful generalisations in the data requires an adequate appreciation of the often metonymic (and therefore sometimes fairly indirect) relation between verbal and constructional semantics, which is further complicated by the ubiquity of verbal polysemy. The point is illustrated on the example of a German predicative construction involving the preposition *in* ‘in’:

- (1) *Nach dem Wechsel brachte Trainer Rompel in Mehic einen weiteren Stürmer.*
‘After the break, coach Rompel brought on a further striker in the person of Mehic’
[DeReKo]

Based on a corpus study in the German reference corpus DeReKo, a frame-based analysis of the construction in (1) is presented and contrasted with Hilpert’s (2009) analysis of a closely related construction that uses the preposition *mit* ‘with’ instead. While Hilpert (2009) finds that the verb position of the *mit*-construction is semantically unconstrained, a frame-based generalisation over the verb slot is possible for its more restricted counterpart in (1): typically, the *in*-PP identifies an entity that constitutes a useful resource for some participant in a given situation. In different metonymically related elaborations of this scenario, the verb may express that the profiled resource is acquired or already possessed, that it becomes activated or deactivated at a specific point in time, or that it becomes unavailable, so that it is henceforth missing. Crucially, it is only against the backdrop of this schematic possessive scenario and the marked constructional association with sports reporting that domain-specific links between verbs like *kommen* ‘come, be brought onto the pitch’, *ersetzen* ‘replace, substitute’ and *spielen* ‘play’ come into focus that would otherwise go unnoticed. The talk presents a cognitive semantic analysis of the construction’s both predicative and schematic possessive meaning in light of Langacker’s (2009) concept of the “control cycle” and discusses implications of the results for the identification and frame-based representation of constructional meaning.

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