

**Towards a Multilingual  
Constructicon:  
Issues, Approaches, Perspectives**

**Book of Abstracts**

<b>Speaker(s)</b>	<b>Title</b>
Hans Boas (Austin/Texas)	How to find relatives of families of constructions
Jean-Pierre Colson (Louvain)	Automatic extraction of constructions and statistical associations in the constructicon: an exploratory methodology
Oliver Czulo (Leipzig), Tiago T. Torrent (Juiz de Fora), Ely E. da Silva Matos (Juiz de Fora), Alexandre Diniz da Costa (Juiz de Fora), Debanjana Kar (Kharagpur)	FSEM: A Frame-Semantic Machine Translation Evaluation Metric
Holger Dießel (Jena)	Construction families and grammatical categories in the constructicon
Alexander Geyken (Berlin)	Representation of multi-word lexemes in a large monolingual dictionary: the case of DWDS
Thomas Herbst (Erlangen)	Engcx - the English constructicon
Olga Lyashevskaya (Moscow), Ekaterina Rakhilina (Moscow)	Russian Constructicon: clusters, families, and usage scenarios
Benjamin Lyngfelt (Gothenburg)	Frames, Comparative Concepts and what else? Linking devices in an infrastructure for multilingual constructicography
Carmen Mellado Blanco (Santiago de Compostela)	Constructions in German and Spanish: The Case of Idiomatic Resultative Constructions and their Equivalent Constructions in Spanish
Fabio Mollica (Milan)	Inheritance and other relations in the family of German Ethicus-construction
Ann-Katrin Nöhren (Dusseldorf), Sascha Michel (Dusseldorf), Alexander Willich (Dusseldorf), Alexander Ziem (Dusseldorf)	Combining Frames and Constructions – Double Particle Verbs and the German Constructicon
Florent Perek (Birmingham)	Frames and constructional meaning in the English Constructicon
Michael Pleyer (Koblenz-Landau), Stefan Hartmann (Bamberg)	Towards a frame-based constructicon for child language acquisition: The case of the Commercial Event Frame
Ekaterina Rakhilina (Moscow), Polina Bychkova (Moscow)	Discourse formulae in the Russian Constructicon
Michael Roth (Stuttgart)	Exploring frames across English, German, and French with multilingual embeddings
Josef Ruppenhofer (Mannheim)	Temporal expressions in German and English

Kathrin Steyer (Mannheim)	Preposition-Noun combinations as minimal phraseological units. A pattern-based view on PNs and new forms of lexicographic representation
Tiago T. Torrent (Juiz de Fora), Ely E. da Silva Matos (Juiz de Fora)	Connecting Constructicons: a Flexible Infrastructure for Constructional Alignment

## **How to find relatives of families of constructions**

Hans Boas (Austin/Texas)

Over the past 30 years, Construction Grammar has emerged as a robust framework addressing a range of central topics in linguistic research. Central to this theory is the idea that language consists of a large structured inventory of form-meaning pairings (constructions). But what exactly does this inventory look like? How is it structured? Is the entire inventory of constructions structured the same way or are there differences in how different parts of the inventory of constructions are structured? This presentation aims to provide some preliminary answers to these questions.

Part 1 offers a brief summary of how the term “family of constructions” has been used in constructionist research, specifically by Goldberg & Jackendoff (2004) and subsequent publications. Of special importance in this connection is the question of motivation and inheritance as discussed by Fillmore's (1999) and Goldberg's (2006) different analyses of the Subject-Auxiliary-Inversion construction(s).

Part 2 builds on the discussion in part 1 by reviewing the architecture of different types of constructions, including Argument Structure Constructions, Word Order Constructions, Mini-Constructions, and Voice Constructions. This part specifically addresses the question of whether the same organizational principles can be applied across different types of constructional families or whether they each come with their own design specifications.

Part 3 focuses on developing a systematic procedure for finding constructions and establishing relationships between them. More specifically, it proposes different ways for identifying constructions, listing constructions in a construction, and for establishing family relationships between different constructions. Of particular importance here is the question of whether constructional families should be proposed based on related form aspects, meaning aspects, or both.

# **Automatic extraction of constructions and statistical associations in the constructicon: an exploratory methodology**

Jean-Pierre Colson (Louvain)

There has already been some interaction between computational linguistics and construction grammar. Using Fluid Construction Grammar (FCG), Steels (1998, 2013), has led to the development of a sophisticated computational model for the implementation of a fully constructionist approach to parsing and language production. In FCG, constructions are modelled in sets and networks, which is compatible with the view taken by Cognitive Construction Grammar (Boas 2003, 2006, 2009, 2013; Ziem 2008) that a complex network of constructions is at stake in language, ranging from abstract to partly schematic and specific constructions.

As several authors have pointed out (Croft 2013, Stefanowitsch 2013), the constructicon may be conceived of as a *probabilistic* network of nodes and inheritance links, which also raises the question of the statistical associations underlying construction grammar. In particular, *collostructional analysis* (Gries 2007, 2013; Gries & Stefanowitsch 2003, 2004a, 2004b, 2010; Stefanowitsch 2006, 2013), has indicated that the attraction between various elements of constructions may be of a probabilistic nature.

If this assumption is correct, it should be possible to use NLP for the automatic extraction of constructions, or at least for measuring the attraction between their component parts, be they of an abstract, schematic or specific nature. In this respect, edition 1.1. of the Parseme shared task, organized at Coling 2018 (Santa Fe, USA) made it possible to bridge the gap between research on the extraction of multiword expressions (MWEs), phraseology in the broad sense, and constructions. By bringing together techniques borrowed from Information Retrieval and Deep Learning, a new picture of the statistical nature of notions such as entrenchment, fixedness, association and idiomaticity is emerging. In particular, recent research on compositionality prediction (Cordeiro, Villavicencio, Idiart and Ramisch 2019) sheds a new light on the notion of idiomaticity by means of a Distributional Semantic Model (DSM) using cosine similarity between vectors. While this approach is very promising for determining the idiomatic meaning of nominal compounds, its extension to longer n-grams,

let alone to constructions, poses the practical question of the computational cost, and the theoretical issue of figurative language as a culture-specific or language-specific notion.

In this paper we will build upon another model often used in Information Retrieval, metric clusters, and show how the low computational cost of this approach makes it possible to gather information on the statistical features of partly schematic constructions (constructional idioms) such as *let alone / geschweige denn*. As proposed in Colson (2017, 2018), we use a query likelihood model in order to implement databases with corpora of about 1 billion tokens in several languages. A new clustering algorithm is used in order to achieve phraseology extraction ([idiomsearch.lsti.ucl.ac.be](http://idiomsearch.lsti.ucl.ac.be)) but also Chinese word segmentation (Colson 2018). We will argue that Chinese word segmentation offers a very valuable feedback for the efficiency of construction extraction, because of the much higher degree of inter-individual agreement for establishing a gold set, as compared to phraseology extraction.

While it is still being supervised and tested on the basis of new data, our methodology already makes it possible to check correlating elements between grammatical categories and constructions (e.g. the negation in combination with *let alone / geschweige denn*, within a window of  $x$  tokens). For this purpose, we use (as in the case of Cordeiro et al. 2019) automatically tagged corpora in preference to parsed corpora, because of the smaller number of errors and of the much lower computational cost.

# **FSEM: A Frame-Semantic Machine Translation**

## **Evaluation Metric**

Oliver Czulo (Leipzig), Tiago T. Torrent (Juiz de Fora), Ely E. da Silva Matos (Juiz de Fora),  
Alexandre Diniz da Costa (Juiz de Fora), Debanjana Kar (Kharagpur)

Meaning is the central dimension in translation. This entails that even if an original and a translation do not match very well on the formal side, they can still be related to each other in terms of semantic similarity. Current machine translation (MT) evaluation algorithms, however, are limited in evaluating the meaning of original and translation: they mostly rely on matching MT output to some reference translation(s), but the meaning may have been expressed by some sort of paraphrase or a creative solution, the adequacy of which cannot be thoroughly evaluated by means of simple matches. Using reference translations for evaluation furthermore requires the involvement of human translators which may prove a challenge if the aim is to evaluate large proportions of machine translated text.

We propose a metric for MT evaluation based on frame semantics which does not require the use of reference translations or human corrections, but is aimed at comparing original and translated output directly. The metric is developed on the basis of an existing manual frame-semantic annotation of a parallel corpus with an English original and a Brazilian Portuguese and a German translation. We discuss implications of our metric design, including the potential of scaling it for multiple languages and the question of how including pragmatic aspects of constructions may enhance the validity of FSEM.

# **Construction families and grammatical categories in the constructicon**

Holger Dießel (Jena)

There is general consensus among cognitive linguists that constructions are related by inheritance links in a taxonomic network (e.g. Goldberg 1995; Lasch and Ziem 2014); however, a number of recent studies have argued that the constructicon does not only involve taxonomic but also horizontal links between constructions at the same level of abstraction (e.g. Cappelle 2006; Van de Velde 2014). In accordance with this view, the current paper argues that horizontal links are crucial to the analysis of two grammatical phenomena: (i) construction families and (ii) paradigmatic alternatives of grammatical categories.

Construction families are local networks of constructions that share some of their semantic and structural properties. Examples include the family of (English) relative clauses, passive sentences and questions. While some aspects of construction families may be explained by inheritance links in a taxonomic network, I argue that the members of a construction family are also horizontally related. Considering evidence from psycholinguistics, the paper shows that construction families facilitate the acquisition and processing of individual constructions (Diessel and Tomasello 2005; Wells et al. 2000), which is readily explained if we assume horizontal links between them.

Paradigmatic alternatives involve pairs of contrastive constructions that are commonly subsume under particular grammatical categories such as voice and number. There is no evidence that paradigmatic alternatives reinforce each other in acquisition and processing, but they compete for activation. Crucially, most paradigmatic alternatives are asymmetrical in the sense that one of the alternating constructions serves as the default. The active-passive alternation, for instance, consists of an unequal pair of constructions. Active sentences are more frequent than passive sentences and occur in a wider range of pragmatic contexts (Weiner and Labov 1983). Moreover, and this is of particular importance, there is a cross-linguistic tendency to mark the less frequent member of an alternating pair of constructions by an extra morpheme. Linguistic typologists refer to these asymmetries as structural markedness (Croft 2003), which, I claim, is readily explained in the framework of a network model in which paradigmatic alternatives are horizontally related.

The paper draws on data and analyses from a recent monograph (Diessel, H. 2019. *The Grammar Network. How Linguistic Structure is Shaped by Language Use*. CUP) and considers the general architecture of the grammar network from a cross-linguistic perspective.

# **Representation of multi-word lexemes in a large monolingual dictionary: the case of DWDS**

Alexander Geyken (Berlin)

The Centre for Digital Lexicography of the German Language (ZDL) began its work on 1 January 2019. The long-term goal of this major lexicographic project is to compile a comprehensive and reliable academic dictionary of the German vocabulary and its ongoing changes. For its contemporary component, it will draw on the Digital Dictionary of German Language (DWDS), a platform that aggregates several legacy resources, including Duden, Wahrig, and WDG. One major goal of ZDL consists of a thorough revision of multi-word expressions (MWE) of the legacy resources of the DWDS. This revision will draw on very large corpora (appr. 15 billion tokens) and aims at integrating approximately 20,000 entries for the coming 8 years of funding of ZDL. There is a natural tradeoff between depth of linguistic description and the number of lexical entries to be described. This presentation focuses on the solutions we have adopted so far for writing corpus-based dictionary entries and integrating them into the DWDS system.

## **Engcx - the English constructicon**

Thomas Herbst (Erlangen)

This talk will present a constructicon project for English. Engcx is intended as a learners' constructicon, which raises important questions with respect to coverage and layout.

With respect to the latter purpose, Engcx will be based on data from the Erlangen Valency Patternbank ([www.patternbank.fau.de](http://www.patternbank.fau.de)) and the Valency Dictionary of English (2004). Analyzing the pattern Subject V into NP, it will be shown that transferring syntactic surface patterns into constructions is by no means a trivial exercise. Whether – or to what extent – a satisfactory description of all the verb-pattern-relations of the Patternbank can be found can provide us with empirical insights into the status of very abstract argument structure constructions within the model of Construction Grammar.

## **Russian Constructicon: clusters, families, and usage scenarios**

Olga Lyashevskaya (Moscow), Ekaterina Rakhilina (Moscow)

We present Russian Constructicon as a new online resource for researchers, learners, and teachers of Russian. We propose a strategy for turning a list of collected constructions into a structured network that can be expanded in a systematic way. In particular, we focus on how to identify clusters and families of constructions that are related by function and/or similar by form. Furthermore, we address different scenarios for using Russian Constructicon as a learner resource. This includes taking a 'daily dose' of constructions adjusted to the learner's level of language proficiency as well as looking for constructions related to certain topics in grammar and vocabulary.

# **Frames, Comparative Concepts and what else?**

## **Linking devices in an infrastructure for multilingual constructicography**

Benjamin Lyngfelt (Gothenburg)

The enterprise of aligning constructions across languages crucially depends on reliable, cross-linguistically applicable mediating structures. Since more or less corresponding construction entries may differ on so many dimensions – linguistic properties regarding both form and function, editorial issues of granularity and representation, differences in coverage between different resources, etc. – establishing pairwise mappings between particular constructions in even a few languages is simply not feasible on a larger scale (cf. Lyngfelt et al. 2018). Therefore, some kind of mediating linking device is required; or, rather, several kinds. In the absence of a universally applicable metalanguage of sufficient sophistication, constructions may be connected in terms of shared properties. Which properties are relevant differs between different kinds of constructions, on the one hand, and between different purposes of the user or application, on the other. Hence, an infrastructure for connecting constructions across languages should include different kinds of linking devices and be flexible enough to be adapted to the relevant situation. In some cases, one may wish to connect whole groups of constructions that share a certain feature; in others, the purpose may be to establish more specific mappings between single constructions sharing a combination of features. My presentation will focus on two kinds of linking devices: FrameNet Frames (e.g. Boas 2009) and Comparative Concepts of the kind employed in language typology (e.g. Haspelmath 2010, Croft 2016). I will also more briefly address the inclusion of additional tools, such as Universal Dependencies (e.g. McDonald et al. 2013).

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# **Constructions in German and Spanish: The Case of Idiomatic Resultative Constructions and their Equivalent Constructions in Spanish**

Carmen Mellado Blanco (Santiago de Compostela)

The subject of this paper is German metaphorical resultative constructions, which are based on a body damage metaphor and characterized by an intensifying meaning ‘very’, ‘to the highest degree’. In this study, constructional idioms such as [PRONRefIDat die Seele aus dem Leib V] and [PRONRefIDat NP{Körperteil} wund V] will be analyzed and the following questions will be addressed on the basis of the corpus German Web 2013 (deTenTen13, Sketch Engine):

1. Which are the prototypical verbal slot fillers of these resultative constructions?
2. How productive and cognitively fixed are these constructions in relation to their type-frequency? How high is their degree of entrenchment?
3. How can vertical and horizontal inheritance links of these constructions be described on the basis of their slot fillers?
4. To what extent is there a lexis-grammar continuum between the idiomatic and the non-idiomatic instances of the resultative constructions?

As a verb-framed language, Spanish - in contrast to German - has no resultative constructions in the strict sense. Against this background, a further concern of my contribution is to use parallel corpora to determine the equivalent constructions in Spanish with the intensifying meaning ‘very’. A fundamental question will be to find out whether in the equivalent Spanish constructions the source frame ‘body damage’ is maintained.

# Inheritance and other relations in the family of German Ethicus-construction

Fabio Mollica (Milan)

The central topic of the study is a construction-based description of the ethical dative in German. Structures with a *dativus ethicus* are constructions in the sense of Goldberg's Construction Grammar (1995; 2006), they are not predictable semantically or formally. Prototypically, they presuppose some familiarity or closeness between the discussion partners, they express the emotional position of the speaker towards the event (Wegener 1985; 1989; Mollica 2014). The analysis also focuses on the “constructional phraseme” (Dobrovol'skij 2011)  $[X_{NPnom} sein_{Kopula} mir_{Exp} \text{ (modal particle) } Det_{ein(e)} Y_{NP}]_{Exkl}$  (e.g. *Du bist mir einer, Du bist mir ja ein Schlingel*), in which a *dativus ethicus* is used. The aims of the contribution are (i) to describe the form and meaning of the ethical dative also in the above mentioned constructional phraseme as a family of constructions (Engelberg et al. 2011; Ruiz de Mendoza Ibáñez 2017), (ii) to define the links between the ethical dative and the other dative constructions (compare De Knop & Mollica 2016, 2017,) and (iii) to investigate how the ethical-dative-construction can be represented in a multilingual (German-Italian) construction.

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# Combining Frames and Constructions – Double Particle Verbs and the German Constructicon

Ann-Katrin Nöhren (Dusseldorf), Sascha Michel (Dusseldorf), Alexander Willich (Dusseldorf),  
Alexander Ziem (Dusseldorf)

Particle verbs have been the subject of controversial debates for decades. Time and again, in the context of traditional grammars, there has been a controversy on whether they are words and hence to be located in the lexicon or whether they are syntactic structures and thus to be located in grammar (cf. for an overview Felfe 2012: 11-53, Gerdes 2015: 24-44).

In the talk, a typology will be developed that systematically addresses the interaction between the German double particles *heraus*, *herum* and their base verbs and thus captures the distribution of double particle verbs in the lexicon-grammar-continuum. It will be shown that a frame-semantic approach, which works well at the lexicon pole, reaches its limits if phenomena that are located closer to the grammar pole are considered. Therefore, complementary to a frame analysis, a constructionist approach is needed, which opens up new possibilities of describing the variety of meaning facets of double particle verbs. Along these lines, a contribution to the discussion on the chances of connections between frames and constructions is made. Furthermore, it is the aim to illuminate the distribution of double particle verbs and corresponding constructions in the lexicon-grammar-continuum, using the examples of *heraus* and *herum*. Perspectively, we will point out some challenges for compiling construction entries in a multilingual framework and the resulting consequences that have to be drawn for constructicon building.

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# Frames and constructional meaning in the English Constructicon

Florent Perek (Birmingham)

This paper explores some of the challenges involved in using FrameNet frames to describe constructional meaning, and the potential consequences for building multilingual constructicons. Aligning constructions in multiple languages requires having a common level of description. FrameNet, as the main implementation of frame semantics, the semantic counterpart of construction grammar, is a likely candidate for providing a common vocabulary for the description of constructional meaning between constructicons. The existence of other FrameNets in various languages besides English, and the fact that many constructicon projects include links to FrameNet frames, further add to the case for frame-based multilingual constructicons.

This approach, however, presupposes that constructional meaning can be solely described by frames, an assumption that has been questioned in recent research (e.g. Ohara 2018). In our early work on the English Constructicon project (Perek & Patten 2019), our approach to describing constructional meaning consists in examining the entire range of frames evoked by verbs in the distribution of an argument structure construction, which provides an ideal setting to investigate the relation between frames and constructional meaning more closely. Our first case studies reveal two problems with frame-based constructional meanings. First, when the meaning of a construction can be claimed to correspond to a certain frame, this does not necessarily mean that all lexical items evoking that frame or its sub-frames can be used in the construction, not to mention cross-linguistic differences. Second, constructional meanings do not always directly correspond to frames; more typically, they involve aspects of certain frames embedded in the constructional meaning. While some of these discrepancies could shed light on subtle differences in how different languages frame certain event types, the limitations of frame-based constructional meanings call for further research in the context of multilingual constructicography.

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# **Towards a frame-based constructicon for child language acquisition:**

## **The case of the Commercial Event Frame**

Michael Pleyer (Koblenz-Landau), Stefan Hartmann (Bamberg)

Resources like FrameNet and the FrameNet Constructicon (Fillmore & Baker 2010, Fillmore et al. 2012, Boas 2017) provide a rich and nuanced description of natural language in frame-semantic terms, as well as of the constructions that instantiate them. However, little is known about how children acquire this inventory of frames and frame elements. Networks of frame elements are usually developed inductively in the process of annotating data that represent the written use of adults. This paper addresses the question whether analyses of frame knowledge and its associated constructions can also be fruitfully applied in research on first language acquisition. In addition, we address the question whether and how the theoretical concept of a constructicon (see e.g. Ziem 2014) as well as its methodological implementations in projects like the FrameNet Constructicon project, the German Constructicon (Boas & Ziem 2018), or projects that aim at modelling English speakers' networks of constructions (Perek, Herbst, this workshop) can be applied to child language acquisition. Specifically, these questions are addressed by means of an exploratory corpus study of the Commercial Event Frame in language acquisition.

The Commercial Event Frame (see e.g. Fillmore 1977) is probably among the most well-known and widely-discussed examples of a frame, i.e. a “configuration of interacting categories” (Ungerer & Schmid 2006: 207). According to the FrameNet analysis, it contains the core frame elements BUYER and GOODS as well as a number of non-core frame elements such as MONEY, PLACE, PURPOSE, etc. Importantly, the use of different lexical units and constructions – as well as the inclusion or omission of frame elements – can lead to very different construals of one and the same event (see e.g. Radden & Dirven 2007, Langacker 2008). This is why a frame-based analysis of the commercial event constructions in child language data can provide important insights into how children learn to use language in order to perspectivize events in ever more complex and nuanced ways (Pleyer 2017).

We use the Thomas (Lieven et al. 2009) and Manchester (Theakston et al. 2001) corpora available in CHILDES (MacWhinney 2000) for investigating the frame elements instantiated in instances of the Commercial Event Frame both in child language and in child-directed speech. We expect a) that the earliest constructions instantiating the Commercial Event

Frame contain less event frames, and more basic ones, than later instances, which gradually become more complex; and b) that this is partly reflected in child-directed speech. To test these hypotheses, constructions that evoke the frames “commerce\_buy”, “commerce\_cost”, “commerce\_pay”, “commerce\_sell”, and “using\_resource\_spend” according to FrameNet are retrieved from the corpora. They are then annotated for the frame elements they contain, operationalizing the above-mentioned core and non-core frame elements. A quantitative analysis of the data supports the above-mentioned hypotheses. It will be followed up with a more qualitatively-oriented analysis of the data that can also help bridge the gap between a semantic frame-based analysis on the one hand and a usage-driven construction-based analysis on the other.

The project aims to characterize children’s linguistic and semantic knowledge in the domain of commercial events in terms of a family of constructions. In other words, it aims to build up a constructicon of the family of commercial event constructions in language acquisition. This is achieved by investigating the interaction of lexical meaning and grammatical constructions related to commercial events. Tracking developmental changes in children’s constructica can then be used as a way to characterize children’s developing linguistic knowledge. In this way, we hope to show how developmental corpus data can shed light on the cognitive organization of frame networks and constructions as well as their acquisition and use in children’s discourse.

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## **Discourse formulae in the Russian Constructicon**

Ekaterina Rakhilina (Moscow), Polina Bychkova (Moscow)

The paper deals with the database (related to “Russian Constructicon”) on discourse formulae: a special type of constructions which serve as short reactions to the interlocutor’s remarks in conversations, cf. Engl. Come on! / No way! / Say what! or Rus. Ne govori! / A to! / Nu i nu! and others. The main dimension of the talk is the approach to cross-linguistic description of discourse formulae as pragmatic units. Russian discourse formulae are compared with corresponding Slovenian and Italian ones in the framework of Moscow Lexical typology group.

# **Exploring frames across English, German, and French with multilingual embeddings**

Michael Roth (Stuttgart)

Abstract: In Frame Semantics, some frames are thought to transfer well across languages while others require more language-specific alterations. In fact, many projects on Frame Semantics for different languages have gone so far as to develop their own inventory of frames in order to best capture the semantics of the language of interest. Dominant computational approaches to frame semantics have used supervised learning, a type of learning algorithm which requires large amounts of frame-labeled data, much of which is unavailable for most languages. Does this mean, then, that computational approaches are limited in their ability to capture frame semantics in a multilingual setup? Or could we benefit from knowledge about frames that have high transference across languages while still learning language-specific frames? In this work, we experiment with multilingual frame assignment for English, German, and French by using multilingual contextualized word embeddings. The model we use, BERT, performs at state-of-the-art for frame identification for the languages we explored, and is a promising framework for capturing frame semantics over a multitude of languages. Some of the questions we explore are: (a) how well can we make predictions for languages without data? (b) does combining data from multiple languages improve performance? and (c) can we automatically determine which frames are the best candidates for multilingual training?

# **Temporal expressions in German and English**

Josef Ruppenhofer (Mannheim)

In this contribution, I contrastively study a subset of German and English temporal expressions against the background of

- a) Fillmore's 2002 analysis in "Mini-grammars of some time-when expressions in English" and
- b) FrameNet's treatment of temporal expressions and constructions

The main purpose of this study is to assess to what extent the overall generalizations about time expressions are the same for German and English. In doing so, I will consider which differences between the languages' temporal expressions seem to be reflective of more general differences between the languages and which ones seem to be more idiosyncratic. Finally, I will discuss some cases where the analytic categories of Fillmore's and FrameNet's analyses prove difficult to apply.

# **Preposition-Noun combinations as minimal phraseological units. A pattern-based view on PNs and new forms of lexicographic representation**

Kathrin Steyer (Mannheim)

The talk discusses semantic and pragmatic aspects of preposition-noun combinations with a recurrent zero gap (PNs). PNs could be modal like *durch Zufall* (*by chance*), local like *vor Ort* (*on site*) or temporal like *für Jahre* (*for years*) (cf. Steyer 2013, 2018, in print). PNs were primarily described as a subtype of prepositional phrases. The grammar traditionally focused on the regularities of the omission of a determiner between the preposition and the noun, the so-called zero article. In contradiction contrast to this, PNs are completely understudied in phraseology as well as in lexicography. This is all the more surprising as PNs are highly frequent and important building blocks of language use with a wide range of ambiguity and pragmatic value. Therefore, those entities often become an obstacle for adequate foreign language use. From a phraseological point of view, one can regard PNs as strongly lexicalized items, as minimal phraseological units with holistic meanings and functional restrictions. At the same time, they are embedded in a network of extensions, (context-)patterns and constructions in the lexicon (cf. Dobrovolskij 2011; Lasch & Ziem 2013). I will show how a bottom-up analysis of mass data can detect the hidden mechanisms of usage-based entrenchment, e.g. by using clustering tools like collocation analysis (cf. Sinclair 1991; Hanks 2013) and the *lexpan* slot filler analysis of semi-abstract lexical patterns (cf. *lexpan*). The second part of my talk is dedicated to new forms of data-driven representation on the platform 'PEPCON online' that we have developed in the last years. PREPCON consists of three modules (fully automatic database of German PNs, semi-automatic inventory of qualitatively selected temporal PNs; contrastive data-driven pilot study). The main target group of this platform are advanced language learners and teachers of German. With the help of comprehensible commentary, we want to help those users to navigate through the universe of corpus data and convince them of the richness and explanatory potential of real language data for a high-level of language use.

# **Connecting Constructicons: a Flexible Infrastructure for Constructional Alignment**

Tiago T. Torrent (Juiz de Fora), Ely E. da Silva Matos (Juiz de Fora)

Constructicon building efforts have been developed for multiple languages, such as English, Japanese, Swedish, Brazilian Portuguese, German and Russian. Although each of these efforts focuses primarily on describing their target languages, aligning the resulting resources is a natural and desirable goal. In this talk we present a flexible infrastructure for constructicon alignment developed by FrameNet Brasil, which allows each project to choose the levels of interlingual representation it intends to use and the pace in which they will be incorporated.