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### **Volume 10**

Contrastive Studies in Construction Grammar  
Edited by Hans C. Boas

## **Contrastive Studies in Construction Grammar**

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## Acknowledgments

My interest in contrastive studies in Construction Grammar was initially sparked in 1999, when I wrote my dissertation on resultative constructions in English and German. One of the findings of my dissertation and its revised version (*A Constructional Account to Resultatives*, CSLI Publications, 2003) was that verbs often exhibit quite different distributions in resultative constructions, even if the verbs are etymologically connected. Subsequently, in 2001, I heard Emily Bender and Andreas Kathol present a constructional account of the “Just because ... doesn’t mean” construction in English, which successfully accounted for a wide range of its syntactic, semantic, and pragmatic properties, at the annual meeting of the Berkeley Linguistics Society. After the talk I discussed the “Just because ... doesn’t mean” construction over a drink with Josef Ruppenhofer, with whom I was sharing an office at FrameNet. During this conversation it dawned on me that German has a very similar construction (“Nur weil ... heisst noch (lange) nicht”) that almost mirrors the syntactic, semantic, and pragmatic properties of its English counterpart. Here was a pair of grammatical constructions in two languages that almost had the same properties –unlike resultative constructions. I was fascinated.

Over the next few years I began to collect pairs of constructions in English and German in order to document their similarities and differences. In 2006, I presented a paper with Hunter Weilbacher (then a graduate student at the University of Texas) at the Fourth International Conference on Construction Grammar in Tokyo, entitled “Just because two constructions look alike in two languages doesn’t mean that they share the same properties: Towards contrastive Construction Grammars.” This talk met with a warm reception, so I decided to compile an edited volume on contrastive studies in Construction Grammar.

I am very grateful to the series editors of the *Constructional Approaches to Language* series, Mirjam Fried and Jan-Ola Östman, who encouraged me with this project. I’d also like to express my gratitude to the people who helped with the review process necessary for the production of this volume: John Beavers, Hans U. Boas, Francisco González-García, Martin Hilpert, Seizi Iwata, Jaakko Leino, Marc Pierce, Paul Sambre, and two anonymous reviewers. Thanks are also due to the wonderful staff at John Benjamins who helped with the smooth production process of this volume: Anke de Looper and Patricia Leplae.

Finally, I thank my wife Claire and our daughter Lena, who always cheer me up and constantly remind me of all the fun things in life!

Austin, Texas; October 2010

H.C.B.

# Comparing constructions across languages

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## 1. Introduction

The aim of this volume is to determine to what degree grammatical constructions can be employed for cross-linguistic analysis.<sup>1</sup> A cursory review of the Construction Grammar (henceforth CxG) literature of the past two decades shows that most constructional research focuses primarily on the analysis of constructions in single languages. When constructions are compared across languages, researchers such as Croft (2001: 6) typically claim that constructions are the basic units of syntactic representation, and that constructions themselves are language-specific.

This approach stands in stark contrast to formalist syntactic theories, most notably Principles and Parameters (Chomsky 1981), Minimalism (Chomsky 1995), Lexical Functional Grammar (Bresnan 1982), and Head-Driven Phrase Structure Grammar (Pollard and Sag 1994), among others, which aim to identify specific descriptive principles that can be employed for cross-linguistic, or, as often proposed, universal analysis. On this view, languages share the same inventory of principles (“universal grammar”), but systematically differ from each other in terms of specific parameters. An example of this “universal” approach is Weibelhuth (1992), who accounts for systematic word order differences between the Germanic languages via cross-linguistic principles together with language-specific parameters. However, formalist syntactic theories based on such explanations are problematic because they employ a distributional method which defines syntactic categories in terms of their possibility of filling certain roles in grammatical constructions (Croft 2001: 3–4). Based on a broad variety of cross-linguistic data, Croft (2001) argues that the distributional method and the linguistic facts it describes are often incompatible with the assumption that syntactic structures (or constructions) are made up of atomic primitive elements that can be compared cross-linguistically. I return to this idea below.

Despite such criticism, widespread interest in the application of linguistic generalizations found in one language to other languages remains, whether in the framework

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1. I thank Jan-Ola Östman, Mirjam Fried, Mark Pierce, and two anonymous reviewers for helpful comments and suggestions. The usual disclaimers apply.

of formalist syntactic theories, or in functionalist theories of syntax (e.g. Givón 1995). Interestingly, however, there is a striking absence of cross-linguistic generalizations in CxG that would employ grammatical constructions as units of comparison between languages. This raises the following questions: (1) Which factors have led to this (perceived) lack of interest? (2) Is it really true, as Croft (2001: 283) asserts, that “constructions as cross-linguistically valid configurations of morphosyntactic properties do not exist”? (3) If true cross-linguistic comparisons at the constructional level are difficult to achieve, is it perhaps still possible to systematically identify and analyze equivalent constructions in closely related languages?

To answer these questions, I first offer a brief overview of the main ideas underlying (“English”) CxG as developed by Charles Fillmore together with his colleagues and students. The discussion of how this approach has been applied to other languages then provides the background for a brief synopsis of Bill Croft’s Radical Construction Grammar. Next, I discuss a number of constructions that suggest that Croft’s ideas should be somewhat relativized when it comes to analyzing and contrasting constructions in closely related languages. This discussion leads me to an outline of a number of proposals that will eventually allow scholars to systematically compile an inventory of constructions with equivalent semantic-functional counterparts in other languages. Finally, I present brief summaries of the papers collected in this volume.

## 2. Language-specific constructions

During the 1980s, CxG evolved out of Fillmore’s earlier work on Case Grammar (Fillmore 1968, 1977) and Frame Semantics (Fillmore 1982, 1985).<sup>2</sup> The emphasis on providing an account of how the entirety of a language operates is one of the defining features of CxG and has set it apart from formal generative grammars from the very beginning. Kay and Fillmore (1999: 1) formulate this important characteristic as follows:

To adopt a constructional approach is to undertake a commitment in principle to account for the entirety of each language. This means that the relatively general patterns of the language, such as the one licensing the ordering of a finite auxiliary verb before its subject in English, often known as SAI, and the highly idiomatic patterns, like *kick the bucket*, stand on an equal footing as data for which the grammar must account. An explicit grammar that covers the full range of constructions must represent all constructions, of whatever degree of generality or idiomatity, in a common notation and must provide an explicit account of how each sentence of a language is licensed by a subset of the leaves of the inheritance hierarchy of constructions which constitutes the grammar of that language.

2. For an overview of the historical background of CxG see Fried & Östman (2004) and Östman & Fried (2004).

Initially, this holistic view of conducting linguistic analysis led constructional researchers to focus primarily on English, which remains the most widely analyzed language within CxG (see Fillmore 1986, Lakoff 1987, Fillmore et al. 1988, Zwicky 1994, Goldberg 1995, Michaelis & Lambrecht 1996, Kay and Fillmore 1999, Boas 2003, Goldberg & Jackendoff 2004, Iwata 2008, besides many others). What unifies all constructional analyses is the idea that constructions are learned pairings of form with semantic or discourse function, including morphemes (e.g. *un-*, *-er*), words (e.g. *dog*, *run*), filled idioms (e.g. *kick the bucket*), partially filled idioms (e.g. *a pain in the X*), partially lexically filled phrasal patterns (e.g. passive constructions), and fully general phrasal patterns (e.g. subject-predicate agreement constructions). According to Goldberg (2006: 5), constructions can be defined as follows:

Any linguistic pattern is recognized as a construction as long as some aspect of its form or function is not strictly predictable from its component parts or from other constructions recognized to exist. In addition, patterns are stored as constructions even if they are fully predictable as long as they occur with sufficient frequency.

Thus, constructions are symbolic units combining form with (at least partially) conventionalized meaning as is illustrated by Figure 1.<sup>3</sup>

While constructional research initially focused almost exclusively on providing descriptions and analyses of English constructions, Fillmore & Kay (1993) outline how insights about English constructions could potentially be applied to other languages. They suggest the following:

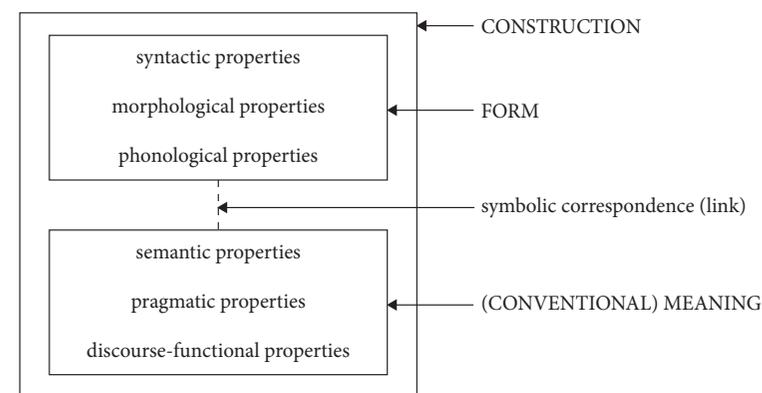


Figure 1. The symbolic structure of a construction (Croft 2001: 18)

3. See Croft (2001: 58–59), Croft & Cruse (2004: 57–90), Fried & Östman (2004: 87–120), and Goldberg (2006: 205–226) for an overview of differences between various constructional approaches.

We will be satisfied with the technical resources at our disposal, and with our use of them, if they allow us to represent, in a perspicuous way, everything that we consider to be part of the conventions of the grammar of the first language we work with. We will be happy if we find that a framework that seemed to work for the first language we examine also performs well in representing grammatical knowledge in other languages. (Fillmore & Kay 1993: 4–5)

Indeed, cross-linguistic constructional research began in the 1990s, eventually leading to constructional analyses of a broad variety of languages, such as Chinese (Bisang 2008), Cree (Croft 2001), Czech (Fried 2004, 2005), Danish (Hilpert 2008), Finnish (Leino and Östman 2005, Leino and Östman 2008), French (Bergen & Plauché 2001, Lambrecht 1994, Lambrecht and Lemoine 2005), German (Hens 1995, Michaelis and Ruppenhofer 2001, Boas 2003, Hilpert 2008), Icelandic (Barðdal 2004, 2008), Japanese (Fujii 2004, Ohara 2005, Tsujimura 2005, Matsumoto 2008), and Swedish (Hilpert 2006, Lindström and Londen 2008), among many others. These accounts follow in the footsteps of previous constructional analyses of English, adopting the idea that constructions as depicted in Figure 1 are the central building blocks of language. As such, the ever-increasing number of cross-linguistic constructional analyses demonstrates that the analytic and representational tools of CxG can be successfully applied to the description, analysis, and explanation of diverse linguistic phenomena in a variety of languages.

At the same time, however, there has been relatively little interest in applying constructional insights to comparative issues in order to arrive at cross-linguistic generalizations based on the concept of constructions, as outlined by Kay and Fillmore (1999: 1): “Language-internal generalizations are captured by inheritance relations among constructions. Cross-language generalizations are captured by the architecture of the representation system and by the sharing of abstract constructions across languages.” This does not mean that constructional researchers have not been interested in the possibility of such cross-linguistic generalizations, as evidenced by the work of Ackerman and Weibelhuth (1998) on passives and causatives in German and Hungarian (among other languages), Oya (1999) on the *way*-construction in English and German, Boas (2003) on resultatives in English and German, and Fried (2009) on passivization in Czech and Russian. However, after reading Kay and Fillmore’s quote one wonders why there has not been more widespread interest in arriving at cross-linguistic constructional generalizations comparable to the types of generalizations proposed in other theoretical frameworks (e.g. Principle A of Chomsky’s (1981) Binding Theory).

In my view, this relative lack of cross-linguistic constructional research is at least partially due to historical coincidence. From its very beginning CxG focused primarily on the analysis of English, aiming to provide an in-depth description and analysis of what in generative transformational frameworks is known as the “core” and the “periphery” (Chomsky 1957, 1965). As such, the primary goal was to develop a framework for explaining the entirety of a single language, in this case English. Subsequently, most

constructional analyses of other languages followed this methodology without paying too much attention to finding cross-linguistic generalizations based on constructions.

Another factor that has influenced the discovery of constructional generalizations across languages is the view that constructions *per se* are language-specific. One of the most vocal proponents of this view is Croft (2001: 3–4), who argues that virtually all aspects of the formal representation of grammatical structure are language-particular. He argues that generative syntactic theories (Chomsky 1981, 1995, Bresnan 1982, Pollard and Sag 1993, among others) are problematic because they employ a distributional method which defines syntactic categories in terms of their possibility of filling certain roles in grammatical constructions. After reviewing a broad variety of cross-linguistic data, Croft proposes that the distributional method and the linguistic facts it describes are incompatible with the assumption that syntactic structures (or constructions) are made up of atomic primitive elements that can be compared cross-linguistically. This observation leads him to propose that constructions are the basic units of syntactic representation, and that constructions themselves are language-specific (2001: 6). On this non-reductionist view, categories are defined in terms of the constructions they occur in. Based on an extensive cross-linguistic review of voice constructions and a variety of complex sentences, among others, Croft (2001: 363) arrives at the following proposals regarding cross-linguistic generalizations:

These are systematic patterns of variation, such as prototypes and implicational hierarchies that characterize cross-constructional and cross-linguistic diversity and constrain the distribution and even the form of constructions used for particular functions. (...) That is, valid cross-linguistic generalizations are generalizations about how function is encoded in linguistic form. Moreover, the variation within and across languages is governed by the same generalization.

By developing an alternative to generative syntactic theories Croft (2001: 61) aims to devise an alternative to Universal Grammar, i.e. “a universal syntactic template to which the grammars of all particular languages conform.” In this alternative proposal, the “universals of language are found in semantic structure and in symbolic structure, that is, the mapping between linguistic function and linguistic form” (Croft 2001: 61). Croft’s goal of finding such linguistic universals is certainly significant and should without doubt be pursued. His discussion of a broad range of typologically different constructions, his combination of synchronic with diachronic data, and his analysis in terms of mapping from a universal conceptual space to a syntactic space, among other things, demonstrate the efficacy of his radical approach to CxG.

However, at the same time it is important not to lose sight of the many linguistic details exhibited by constructions in individual languages. For example, Croft’s analysis of specific types of constructions, such as voice constructions (2001: 283–319) and coordination and subordination constructions (2001: 320–361) is based on a very broad range of data from typologically diverse languages. These data are described with respect to different regions of conceptual space in order to arrive at a unified way

of comparing cross-linguistic data. In discussing the conceptual space and the structural properties of active, passive, and inverse voice constructions, Croft compares data from 29 languages (2001: 311), which eventually leads him to a presentation of the syntactic space for voice constructions (2001: 313) as well as a unified conceptual space for voice and transitivity (2001: 317).

Although Croft discusses a plethora of voice constructions from different languages, his analysis of the data seems too coarse-grained. For example, in reviewing the structure of so-called passives in Welsh Croft only discusses two examples (2001: 290–91), and he discusses only three examples each from Finnish, Russian, and Maasai, respectively (2001: 291–92). Obviously it is difficult to pay justice to the full range of passive constructions of these languages within one chapter. But at the same time one wonders whether Croft's results, such as his depiction of the conceptual space for voice and transitivity, may perhaps be incomplete because of his reliance on relatively small amounts of data from each language. In contrast, other accounts dealing with passive constructions address a much broader range of data in order to arrive at a more comprehensive overview of a construction's distribution. An example is Ackerman and Webelhuth's (1998) detailed analysis of German passive constructions, which "are related by a very rich network of cross-classifying grammatical properties" (1998: 264). Based on an in-depth discussion of the data Ackerman and Webelhuth describe and analyze a total of fourteen passive constructions in German. Their analysis rests on a large amount of data showing the different distributional patterns of constructions.

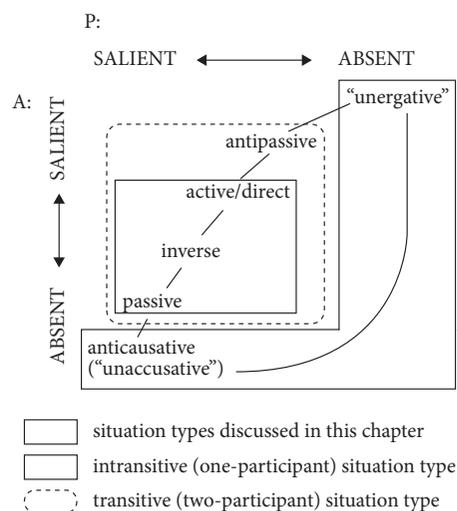


Figure 2. The conceptual space for voice and transitivity (Croft 2001: 317)

Clearly, such detailed descriptions and analyses are necessary prerequisites for arriving at true cross-linguistic generalizations of the type that Croft is advocating for. While this position does not in principle contradict Croft's claim that constructions are language-specific, it does call for a more fine-grained analysis of the data before coming to any conclusions about the organization of conceptual space and syntactic space, among other things (see also Haspelmath 2007). In the following section I propose a number of methodological steps that will help us with identifying accurate detailed cross-linguistic generalizations by following a more careful bottom-up approach.

### 3. Step by step cross-linguistic constructional generalizations: From meaning to form

Instead of focusing on broad typological generalizations of the type advocated by Croft, I suggest a more careful approach that initially only compares and contrasts constructions between pairs of languages. This modified radical bottom-up approach is in principle compatible with Croft's proposals, since the description and analysis may benefit from his notions of semantic and syntactic space and the mapping between the two. However, it differs from Croft's approach in that it does not claim to identify some type of "universal" conceptual space without first having analyzed ALL languages. Note, of course, that while analyzing all languages to arrive at universal claims about a particular linguistic phenomenon would be ideal, it is never possible and typologists would naturally not make such a claim.

Nevertheless, one could argue that once the relevant constructional generalizations and exceptions between pairs of languages are identified and accounted for, further generalizations can be sought by expanding the analysis to other languages. This methodology, which I sketch in the remainder of this section, implies that in an ideal world we would only achieve true universal generalizations if we were to arrive at an analysis of how all languages encode meaning and function in linguistic form. Again, this is an idealized situation that is very unlikely to happen. Every constructional generalization stopping short of incorporating data from all the world's languages should therefore be labeled appropriately as covering only the respective languages.

Comparing and contrasting languages in such a detailed way is not a new idea. It is based on a long tradition in contrastive linguistics, which became popular during the 1960s and was originally concerned with language pedagogy (James 1980, Chesterman 1998). During the 1970s, contrastive linguistic methodology was expanded beyond foreign and second language teaching and applied to translation theory, language typology, and language universals (Ellis 1966, Di Pietro 1971, Boas 1977, Krzeszowski 1990). Over the last decade, some of the concepts underlying contrastive linguistics have become increasingly popular among lexical semanticists and computational lexicographers (Weigand 1998, Altenberg and Granger 2002).

One framework which has been successfully employed for contrastive analysis is Frame Semantics (Fillmore 1982, 1985), the semantic complement of some constructional approaches. Frame Semantics offers an intuitive method of elaborating the analysis of form-meaning relationships by focusing on lexical semantic issues that are relevant to grammatical structure, among other things. It differs from other theories of lexical meaning in that it builds on common backgrounds of knowledge (semantic “frames”) against which the meanings of words are interpreted.<sup>4</sup> Over the past two decades, Frame Semantics has been mainly applied to the analysis of the English lexicon, most notably by the Berkeley FrameNet project (<http://framenet.icsi.berkeley.edu>), which is in the process of creating a database of lexical entries for several thousand words taken from a variety of semantic domains (Lowe et al. 1997). Based on corpus data, FrameNet identifies and describes semantic frames and analyzes the meanings of words by directly appealing to the frames that underlie their meaning. FrameNet is not only valuable because of its detailed semantic analysis. For our purpose of arriving at cross-linguistic constructional comparisons and generalizations it is also helpful because it studies the syntactic properties of words by asking how their semantic properties are given syntactic form (Fillmore et al. 2003, Boas 2005a).

To illustrate, consider the *Compliance* frame, which is evoked by several semantically related words such as *adhere*, *adherence*, *comply*, *compliant*, and *violate*, among others (Johnson et al. 2003). The *Compliance* frame represents a kind of situation in which different types of relationships hold between “Frame Elements” (FEs), which are defined as situation-specific semantic roles.<sup>5</sup> This frame concerns *ACTS* and *STATES\_OF\_AFFAIRS* for which *PROTAGONISTS* are responsible and which violate some *NORM(S)*. The FE *ACT* identifies the act that is judged to be in or out of compliance with the norms. The FE *NORM* identifies the rules or norms that ought to guide a person’s behavior. The FE *PROTAGONIST* refers to the person whose behavior is in or out of compliance with norms. Finally, the FE *STATE\_OF\_AFFAIRS* refers to the situation that may violate a law or rule (cf. Boas 2005a). Based on corpus evidence, FrameNet entries provide for each lexical unit (a word in one of its senses) the following information: (1) a definition of the frame which it evokes, together with a list of all Frame Elements found within the frame; (2) a realization table summarizing the different syntactic realizations of Frame Elements; (3) a summary of all valence patterns found with the lexical unit, i.e. “the various combinations of frame elements and their syntactic realizations which might be present in a given sentence” (Fillmore et al. 2003: 330). As I show below, this mapping

4. A “frame is a cognitive structuring device, parts of which are indexed by words associated with it and used in the service of understanding” (Petrucci 1996: 2).

5. The names of Frame Elements (FEs) are capitalized. Frame Elements differ from traditional universal semantic (or thematic) roles such as Agent or Patient in that they are specific to the frame in which they are used to describe participants in certain types of scenarios. “Tgt” stands for target word, which is the word that evokes the semantic frame.

of meaning to form – using semantic frames – can be employed for cross-linguistic comparison and analysis of grammatical constructions.

Boas (2002) applies frame-semantic descriptions to contrastive analysis by proposing bilingual lexicon fragments that also include grammatical information (see also Fontenelle 1997, Fillmore and Atkins 2000, and Boas 2005b). Analyzing English and German verbs that evoke the *Communication-statement* frame, Boas finds that *announce* is quite flexible in how it allows the different perspectives of a communication event to be expressed. This semantic flexibility is reflected by the various syntactic realizations of Frame Elements. Table 1 is a brief selection of the full list of syntactic frames recorded by FrameNet for *announce*.<sup>6</sup>

**Table 1.** Some of the syntactic frames highlighting different parts of the *Communication-statement* frame with *announce* (Boas 2002: 1370)

1.	[<speaker> They] <i>announced</i> <sup>Tgt</sup> [<message> the birth of their child].
2.	[<medium> The document] <i>announced</i> <sup>Tgt</sup> [<message> that the war had begun].
3.	[<speaker> The conductor] <i>announced</i> <sup>Tgt</sup> [<message> the train’s departure] [<medium> over the intercom].

Based on the selection of syntactic frames occurring with *announce* in Table 1, Boas (2002) discusses the various German translation equivalents for each of the three perspectives taken on the *Communication* frame. In Table 2 we see that German requires different verbs as translation equivalents for each of the three perspectives taken on the *Communication* frame by *announce*. For example, when *announce* occurs with the syntactic frame [NP.Ext \_\_NP.Obj] to realize the *SPEAKER* and *MESSAGE* Frame Elements, German requires *bekanntgeben*, *bekanntmachen*, *ankündigen*, or *anzeigen* (the choice is largely stylistic in nature).<sup>7</sup> Each of these German verbs come with their own specific syntactic frames that express the semantics of the *Communication-statement* frame. The two other syntactic frames of *announce* in Table 2 and their German translation equivalents clearly show how a difference in perspective on the frame is reflected by different syntactic frames in English as well as different translation equivalents in German (see also Boas 2005b for details). In other words, the choice between grammatical constructions occurring with *announce* directly depends on the meaning to be expressed. Using semantic frames to describe these syntactic differences allows us to capture them systematically in one language, and also across languages, thus demonstrating that semantic frames are in principle a useful tool for cross-linguistic constructional analysis.

6. For a full version please see the FrameNet website at [<http://framenet.icsi.berkeley.edu>].

7. In reality, a much finer-grained distinction (including contextual background information) is needed to formally distinguish between the semantics of individual verbs. E.g., *anzeigen* is used in a more formal sense than the other verbs. In contrast, *ankündigen* is primarily used to refer to an event that will occur in the future (see Boas 2002).

**Table 2.** A selection of syntactic frames of *announce* and corresponding German verbs (Boas 2002: 1370)

1.	<b>speaker</b> NP.Ext	<b>TARGET</b> announce.v	<b>message</b> NP.Obj	
	<i>bekanntgeben, bekanntmachen, ankündigen, anzeigen</i>			
2.	<b>medium</b> NP.Ext	<b>TARGET</b> announce.v	<b>message</b> Sfin_that.Comp	
	<i>bekanntgeben, ankündigen, anzeigen</i>			
3.	<b>speaker</b> NP.Ext	<b>TARGET</b> announce.v	<b>message</b> NP.Obj	<b>medium</b> PP_over.Comp
	<i>ankundigen, ansagen, durchsagen</i>			

Returning to our discussion of Croft's (2001) ideas, I propose that a detailed bottom-up analysis of the type described in the preceding paragraphs offers a more fine-grained methodology that holds the promise of ultimately arriving at cross-linguistic constructional generalizations without losing sight of language-specific idiosyncrasies. More specifically, contrastive frame-semantic analyses offer at least two advantages for finding constructional generalizations across languages.

First, by utilizing semantic frames as a *tertium comparationis* it is possible to delineate more precisely what Croft calls "conceptual space." Structuring the lexicons of languages in terms of domains and frames allows us to analyze and compare their lexical units with each other systematically, as well as how their semantics are realized syntactically.<sup>8</sup> The effectiveness of this approach has already been successfully tested by a number of cross-linguistic analyses applying semantic frames derived on the basis of English to other languages such as Chinese (Fung and Chen 2004), French (Fillmore and Atkins 2000, Pitel 2009, Schmidt 2009), German (Boas 2002/2009b, Burchardt et al. 2009, Schmidt 2009), Hebrew (Petrucek and Boas 2003, Petrucek 2009), Italian (Heid 1996), Japanese (Ohara et al. 2003, Ohara 2009), and Spanish (Subirats 2009).<sup>9</sup>

8. Note that the semantic frames discussed in this paper are understood as an independently existing conceptual system that is not tied to any particular language. Since semantic frames have been initially developed primarily on the basis of English it may appear as if they can only be used to describe the semantics of English lexical units. However, this is not entirely the case. Several contrastive studies have demonstrated that semantic frames can be employed to analyze other languages. While initial results suggest that many (if not most) semantic frames derived on the basis of English, such as *Communication*, *Motion*, *Emotion*, etc. are indeed universal, some studies have also pointed to culture-specific frames (e.g. *Calendric-unit* frame; see Petrucek and Boas 2003) that do not seem to be amenable for cross-linguistics "recycling" (see Boas 2005b for details).

9. Wierzbicka's (1972, 2003) Natural Semantic Metalanguage (NSM) shares a number of features and goals with cross-linguistic frame-semantic analyses. Her approach compares meanings across languages by using a semantic metalanguage independent of any particular language or culture; in some respects it differs significantly from Frame Semantics.

Second, such cross-linguistic comparisons also result in the creation of inventories of constructions of different levels of abstraction for each language, similar in spirit to the type advocated by Croft. The data in Tables 1 and 2 above show that it is in principle possible to map the same frame-semantic meaning to different forms across languages. As such, each syntactic frame expressing a specific aspect of a lexical unit's frame-semantic meaning can be regarded as a grammatical construction. This means that each syntactic frame may be polysemous because it may be used to express the semantics of a broad variety of semantic frames (see Goldberg 1995 and Boas 2003/2008a/2008b on constructional polysemy). It is important to keep in mind that the types of constructions discussed in Tables 1 and 2 are only the first small steps towards recording an inventory of constructions. Future work needs to focus on creating a complete record of constructional inventories of languages that we want to include in our cross-linguistic constructional investigations.

Fillmore (2008) has taken a first step in demonstrating how the continuity between grammar and lexicon can be accounted for in English. He outlines the design of a future so-called "constructicon" representing an inventory of grammatical constructions in English that complements the existing inventory of lexical units in FrameNet. While descriptions of lexical units in FrameNet carry instructions on how they fit into larger semantic-syntactic structures, construction descriptions in the constructicon carry instructions about the types of lexical units that can fit into their slots, according to Fillmore. The constructicon is unique in that it takes the lexicon-syntax continuum seriously. As such, it covers the basic and familiar predication, modification, complementation, and determination constructions, among others. In addition, the constructicon covers so-called non-core constructions such as *let-alone* (Fillmore et al. 1988), the *way-construction* (Goldberg 1995), *What's X doing Y?* (Kay & Fillmore 1999), and subjectless tagged sentences (Kay 2002), among many others, all of which exhibit particular idiomatic usages. Using a notational format compatible with that of FrameNet, some construction descriptions "involve purely grammatical patterns with no reference to any lexical items that participate in them, some involve descriptions of enhanced demands that certain lexical units make on their surroundings, and some are mixtures of the two" (Fillmore 2008: 1).

Without going into too many details about the design of a future constructicon, I suggest that it is in principle feasible to arrive for each language at a complete inventory of lexical units, the frames they evoke, and the grammatical constructions in which they participate. Once such an inventory is in place for two languages, a contrastive analysis of how specific meanings are mapped to different forms similar to the type discussed above for Tables 1 and 2 is possible. Expanding this methodology to more languages will eventually yield broader constructional generalizations of the type that Croft (2001) has in mind. It is important to remember that this alternative approach is in principle compatible with Croft's approach, although it differs in methodology because it insists on first collecting more substantial amounts of data on each grammatical construction before trying to look for cross-linguistic correspondences. It also takes

the notion of language-specific constructions serious while at the same time insisting on a radical bottom-up approach to finding cross-linguistic constructional generalizations. As we shall see in the next section, the papers collected in this volume fall somewhere in between Croft's methodology and the alternative outlined above.

#### 4. Different approaches to comparing and contrasting constructions

The papers collected in this volume demonstrate that there is indeed a broad variety of methodologies employed for cross-linguistic constructional analyses. They are all similar in structure in that they are interested in how a specific constructional phenomenon in English is realized in another language (or languages). By comparing the relevant constructional properties it becomes possible to highlight specific aspects of constructions that can be employed for the description of more than just one language. Constructional properties that do not lend themselves to cross-linguistic analysis are in turn argued to be language-specific.

The first set of chapters provides comparative constructional analyses of languages belonging to the same family, namely Indo-European. The second chapter (by Hilpert) compares morpho-syntactic properties of comparative constructions in English and Swedish. Based on data from the BNC and PAROLE corpora, Hilpert demonstrates that despite their structural analogy English and Swedish comparative constructions exhibit a number of unpredictable morpho-syntactic, phonological, semantic, and pragmatic characteristics that must be encoded at the constructional level. These observations lead Hilpert to argue that idiosyncratic constructional properties in the two languages sometimes conflict with general functional principles, which in turn suggests that some constructional properties need to be considered on their own terms instead of more generalized abstract constructions.

González-García's chapter addresses differences between English and Spanish *Accusative cum Infinitive* (AcI) constructions following cognition and communication verbs. Comparing the constructional properties of the constructions in the two languages, González-García shows that there are significant differences in the division of labour between semantic and information structure factors. These differences, in turn, can be captured within the function pole of the respective constructions, with special focus on information structure notions such as topic and focus. González-García's chapter also provides an insightful discussion of syntactic productivity. Employing both synchronic and diachronic data suggests that the AcI construction systematically differs in the two languages in that it is more integrated into the grammar of English than that of Spanish.

The third chapter, by Gurevich, demonstrates how the notion of constructional families (see Goldberg and Jackendoff 2004) can be applied to an analysis of conditional constructions in English and Russian. Her analysis focuses on conditional constructions that use an imperative form of the verb in Russian to express either a

potentially realizable condition, or an irrealis situation. Combining insights from Construction Grammar and Mental Spaces Theory (Dancygier and Sweetser 2005), Gurevich examines the discourse- and construction-specific factors that determine whether English and Russian conditional constructions describe the same types of situations. Her chapter shows that the constructions differ in how they encode viewpoint and epistemic distance, suggesting that mapping between the two languages is subject to a variety of construction-specific constraints that need to be described separately for each language.

The second set of chapters is devoted to contrastive analyses of constructions in English and non-Indo-European languages. Chapter four (by Leino) investigates what types of correspondences hold between English and Finnish argument structure constructions. Focusing on resultative constructions, Leino provides answers to the following questions: What do we mean when we say that a given construction in language A *corresponds to* a certain construction in language B? To what extent can we claim this to be something more than a random observation of two morpho-syntactic patterns in two languages being associated with more or less the same communicative tasks? Or, from a different angle, what more does this mean than the practical but possibly coincidental observation that these constructions are each other's translation equivalents? While there are correspondences between constructions in English and Finnish that can be described in terms of "humanly relevant scenes," Leino also shows that there are also systematic differences (typological, information structure, cultural, etc.) that influence how form and meaning are related in the two languages.

In Chapter five, Timyam and Bergen present a contrastive study of dative and ditransitive constructions in English and Thai. Based on corpus and experimental data, the authors show that despite differences in form and function, argument structure constructions may share certain core characteristics across languages. First, meaning associated with a construction influences its distribution, suggesting the interaction of various constructional properties. In English, the dative tends to occur with verb subclasses whose meaning is consistent with forced motion along a path, while the ditransitive is likely to occur with verb subclasses of possessive transfer. In Thai, since both constructions denote transfer of possession, they tend to occur with verb subclasses having meanings compatible with either the basic constructional meaning of transfer of possession, or with extensions from it. Second, the choice of one construction over another is subject to pragmatic strategies that facilitate production and comprehension, though these strategies differ across the languages. Although Timyam and Bergen do not argue for a universal construction, they propose that constructions across languages share certain core characteristics that reflect the universal mechanism of human language.

Chapter six (by Hasegawa et al.) presents a cross-linguistic investigation of measurement expressions in English and Japanese. Based on data from the FrameNet project (Fillmore et al. 2003), the authors focus on the distribution of constructions involving scalar adjectives, which are comparative in nature. For example, *the house is large*

means that the house is *larger* than some implicit standard. In English, the adjective in such a combined expression (e.g. *3 inches long*) does not function as an evaluative predicate (i.e. longer than a certain standard), but, rather, it merely evokes a relevant scale on which the measurement value is located. In Japanese, however, scalar adjectives do not license a measurement value; therefore, when a scalar adjective appears with a measurement phrase, the resultant complex expression must be interpreted as comparative. These systematic differences lead the authors to the conclusion that the architecture of English comparison constructions proposed by FrameNet for English need to be amended in order to make possible a uniform analysis of Japanese comparison constructions. On this view, not only lexical items, but also grammatical constructions can evoke semantic frames. This insight necessitates a re-formulation of certain FrameNet frames so that they become more conceptual and holistic for cross-linguistic analysis.

The final chapter of this volume offers a broad-scale typological view of grammatical constructions. Croft et al. discuss Talmy's typological classification of motion events, later generalized to manner vs. result event encoding. This approach has been highly influential in linguistics and psychology. More recent cross-linguistic comparison has indicated that it is in need of revision, in particular to account for symmetric event-encoding constructions such as serial verbs. Croft et al. extend Talmy's classification to include various symmetric constructions as well as others. They also argue that a comparative analysis of specific situation types in English, Icelandic, Dutch, Bulgarian, and Japanese reveals that each language uses different event encoding strategies for different types of events. This small sample suggests that there are implicational universals relating event types and event-encoding constructions that are semantically motivated. Finally, Croft et al. present evidence of grammaticalization paths that can lead to the spread of syntactically more integrated event-encoding constructions.

## 5. Conclusions

The papers in this volume all take a contrastive approach by comparing how particular constructions in English are realized in other languages. This methodology is informed by both practical and theoretical considerations. Since a very large set of constructional analyses is focused primarily on English, the choice of the "basis" for contrastive analysis within CxG naturally falls on English. One of the advantages of this approach is that each contribution in this volume is capable of referencing a well-described constructional phenomenon in English, thus providing a solid foundation for describing and analyzing its constructional counterpart in another language. Another advantage of this contrastive approach is that the semantic description (including discourse-pragmatic and functional factors) of an English construction can be regarded as a first step towards a *tertium comparationis* that can be employed for comparing and contrasting the formal properties of constructional counterparts in other languages. This

means that the meaning pole of constructions should be regarded as the primary basis for comparisons of constructions across languages – the form pole is only secondary (cf. Figure 1 above). At the same time, it should of course be kept in mind that the choice of English as the "basis" for comparison does not imply that English should be assigned any special status.

Applying such a contrastive methodology to CxG has yielded a number of important insights. First, constructions are viable descriptive and analytical tools for cross-linguistic comparisons that make it possible to capture both language-specific (idiosyncratic) properties as well as cross-linguistic generalizations. For example, Timyam and Bergen's contribution demonstrates that caused-motion and ditransitive constructions in English and Thai are language-specific, associated with very explicit constraints that differ between the two languages. At the same time, they argue that the two constructions share certain characteristics that reflect universal mechanisms of human language.

A second insight is that constructions enable linguists to state generalizations across languages at different levels of granularity. As Croft et al. show, it is possible to derive implicational scales inductively from cross-linguistic data, which in turn provides universals that constrain language variation in the pairing of form and meaning. In the same vein, Hasegawa et al. show that starting with a semantic concept such as measurement first, and then asking how it is realized at the form level in different languages makes it possible to arrive at a unified representation that captures (at different levels of semantic abstraction or schematization) the distributional properties of scalar adjectives and measurement expressions in English and Japanese.

A third insight is that the relationship between meaning and form may be constrained by typological differences between languages. As Leino demonstrates, English and Finnish argument structure constructions may be used to encode the same event, but Finnish uses morphological case for argument marking. This makes it possible to use word order to express information structure variation. In contrast, English uses word order for argument marking and therefore has to use other ways of expressing information structure variations.

The final and perhaps most intriguing insight is that the notion of construction lends itself so well for cross-linguistic analyses because it allows the researcher to arrive at results involving all levels of grammatical structure across languages. For example, Hilpert shows that although English and Swedish comparatives are very similar the respective forms exhibit a number of unpredictable characteristics on the levels of phonology, morphology, syntax, semantics, and pragmatics. Since constructions are linguistic signs that pair all of these different aspects, they are extremely well suited to capture all of the different (and partially idiosyncratic) distributional properties of grammatical structure across languages simultaneously.

Obviously, future research is required to investigate further how the contrastive approach to CxG can be expanded and refined. The goals of the papers in this volume have been more modest: to set out a framework for contrastive analysis in CxG, and to

demonstrate that the notion of construction provides us with a valuable and useful concept for cross-linguistic comparison and analysis.

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## Comparing comparatives

### A corpus-based study of comparative constructions in English and Swedish

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#### 1. Introduction

This paper is an exploratory contrastive study of comparative constructions in English and Swedish. Being closely related, these languages express the gradation of qualities with two analogous forms: a morphological construction in which a comparative suffix attaches to a host, and a periphrastic construction that involves a separate form with the meaning ‘more’. The examples in (1) illustrate the English construction types and their Swedish counterparts.

- (1) a. We try to develop newer, more effective therapies.  
 b. Vi försöker att utveckla nyare, mer effektiva terapier.  
*we try to develop newer more effective therapies*  
 ‘We try to develop newer, more effective therapies.’

Comparative constructions are known to be governed by constraints from several grammatical domains (Mondorf 2003, Szmrecsanyi 2006, Hilpert 2008). The choice between the two respective variants depends on factors such as the number of syllables in a given adjective, its morphological complexity, but also the syntactic context of the comparative construction. It is the aim of the present paper to disentangle where the English and Swedish constructions follow essentially the same constraints and where they pattern differently. It will be maintained that an analysis within the framework of Construction Grammar (Goldberg 2006) is particularly suited for this task, since it allows generalizations to be stated at the level of the grammatical construction. This is of importance, since the comparative constructions under investigation have properties that do not automatically follow from, say, the phonology of Swedish, or general syntactic patterns of English, as will be explained in more detail below. Rather, each pair of constructions has to be described in its own terms to capture the cross-linguistic differences and convergences. For this purpose, constructions will be defined here as follows:

