An Introduction to Cognitive Grammar (CG)
David S. Danaher, Associate Professor
Slavic Languages & Literatures
University of Wisconsin-Madison
dsdanaher@wisc.edu

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Introduction: Touring the Grammatical Landscape

A theory frames how we view a subject and how we expect to research it; grammatical
theories are no exceptions. A given theoretical frame will allow us, or occasionally force
us, to see certain aspects of a discipline in a certain way while preventing us from seeing
other aspects that an alternative theory might naturally bring into view. In this regard,
theorists are like tourguides who point out and comment on different sights as the tour
travels along its route; one theorist's itinerary and commentary may bear only a passing
resemblance to another's.

In a tour of the grammatical landscape, what sights does a cognitive tourguide point out
to a linguistic tourist and how does she advise us to look at those sights? What aspects of
grammar does a cognitive approach naturally bring into view? How does it frame how
we understand what grammar is and how we comment upon it in our analysis?

A Brief History, Compatible Approaches, and Applications to Slavic Languages

Ronald Langacker, the founder of Cognitive Grammar (CG) and still one of its main
practitioners, originally called his approach "Space Grammar" in the mid-1970's.¹
Langacker developed CG as a reaction against Chomsky’s Generative Grammar (GG),
which privileges a logically formal approach to grammar that does not — and cannot —
take into consideration either usage or figurative language:

[T]he requirement of generativity entails the exclusion from the grammar… of both usage
and figurative language, which are pivotal to an understanding of linguistic structure.
Rather than ensuring explicitness, generativity has had the unfortunate effect of
impoverishing the natural domain of linguistic inquiry, leading to maximal inexplicitness
(i.e. silence) with respect to fundamental matters. These problems stem from the
erroneous view that language is an autonomous formal system.ii (Langacker 1987(I), 64)

In CG, linguistic semantics is neither autonomous nor formal, and:

a complete analysis of meaning is tantamount to a complete account of developmental
cognition. This consequence is terribly inconvenient for linguistic theorists imprinted on
autonomous formal systems, but that is not a legitimate argument against its validity.
(Langacker 1990, 4)
As Laura Janda has phrased it: "Jazyková kognice [linguistic cognition] je prostě kognice: je to komplikovaný jev celkové lidské kognice" (2004, 12). Grammar represents an abstract symbolic structure and forms a continuum in this regard with the lexicon: "When we use a particular construction or grammatical morpheme, we select… a particular image to structure the conceived situation for communicative purposes" (Langacker 1990, 12).

CG’s non-formal, image-based understanding of grammar does not lead to a focus on uncovering "deep" grammatical structure or a set of grammatical universals:

[Cognitive grammar claims that grammatical structure is almost entirely overt. Surface grammatical form does not conceal a "truer," deeper level of grammatical organization; rather, it itself embodies the conventional means a language employs for the structuring and symbolization of semantic content. Grammatical diversity is real instead of only apparent, and although grammatical universals can still be sought and formulated, they must be limited and flexible enough to accommodate the variability actually encountered. (Langacker 1987 (I), 46-57)

Since language symbolizes, meaning is central to all linguistic matters:

Meaning is what language is all about; the analyst who ignores it to concentrate solely on matters of form severely impoverishes the natural and necessary subject matter of the discipline and ultimately distorts the character of the phenomena described. (Langacker 1987 (I), 12)

In accord with the centrality of meaning, CG claims that no linguistic phenomenon is semantically empty. Meaning, however, is neither objectively given nor can it be captured through rigorously formal description.

More will be said about some of CG’s fundamental principles below. For now it is enough to note that grammar as a phenomenon is understood in radically different ways in GG and CG: as theoretical tourguides, Chomsky and Langacker offer incompatible pictures of the grammatical landscape.

While not compatible with GG, CG has proven to be compatible with other theories of linguistic semantics and discourse. These theories include the following: a cognitive approach to metaphor as outlined in Lakoff and Johnson's seminal 1980 book Metaphors We Live By, Goldberg's Construction Grammar, Bybee's and others' theories of grammaticalization, Chafe's treatment of discourse, Fauconnier's theory of mental spaces (see also Sweetser and Fauconnier 1996), Fillmore's Frame Semantics, Givón's Functional Grammar, and Shapiro's semiotic theory of language and grammar (see also Anttila 1977). Not all of the connections between CG and these theories have been fully examined; for specific references, see the bibliography below.

Since CG understands grammar as symbolic or image-based, it also has potentially much to offer literary-critical theory, something which can hardly be said of GG. Initial
explorations of CG's literary-critical potential include Stockwell 2002 and Semino and Culpeper 2002.iii

Applications of CG to the Slavic languages, including Czech, are numerous. Some of the more prominent Slavic linguists working in the CG framework include the following: Laura Janda (the semantics of prefixes, case, aspect, animacy), Tore Nesset (morphology), Alan Cienki (the semantics of prepositions and case), Ewa Dąbrowska (the semantics of case and prefixes as well as language acquisition), Stephen Dickey (aspect), and David Danaher (habituality in Czech). For references to specific studies, see the bibliography.

Some Fundamental CG Concepts

Taylor has written: "A language provides its users with a set of resources for representing thought, and 'doing' Cognitive Grammar consists, to a large extent, in identifying and analyzing these resources" (Taylor 2002, 16). Linguistic resources for representing thought are grounded in fundamental principles of human cognition. Some of these basic principles are discussed and briefly illustrated below, and references to specific research on Slavic languages that make use of each principle are, where relevant, provided.

Construal

Construal is a foundational concept in CG, and Taylor defines construal as "[t]he process by which a given state is structured by a language-user for purposes of its linguistic expression" (2002, 589). One and the same real entity (person, thing, event) can be construed in different ways depending on how the speaker construes or views the entity. Construal is a basic fact of human cognition:

[A] speaker who accurately observes the spatial distribution of certain stars can describe them in many distinct fashions: as a constellation, as a cluster of stars, as specks of light in the sky, etc. Such expressions are semantically distinct; they reflect the speaker's alternate construals of the scene, each compatible with its objectively given properties. An expression is said to impose a particular image on its domain. (Langacker 1990, 61)

It is necessary to take construal into account in semantic analysis of both the lexicon and grammar because the meaning of an expression is not derived "in any unique or mechanical way from the nature of the objective situation it describes" (Langacker 1987 (I), 107). We can describe the situation by a variety of semantically distinct expressions and our ability to "impose alternate structurings on a conceived phenomenon is fundamental to lexical and grammatical variability" (Langacker 1987 (I), 107).

Construal is an easy principle to discern in the lexicon. Depending on one's construal, the author of this article can be any one of the following: a linguist or a cognitivist; a Slavist, a Bohemist or a Russianist; an American or a foreigner. At a very broad level of construal, he is just a person. At a very specific and non-academic level, he is also a
fanatical tennis-player. The point is that I am all of these things (and more), and people can "impose alternate structurings" on me as a matter of functional construal.

Construal is equally important in grammar since situations can be structured by means of alternate grammatical images that reflect "qualitatively different mental experiences" of the same phenomenon (Langacker 1987 (I), 117). Very simple examples that Langacker often discusses include the conceptual differences between the following pairs of sentences: "The lamp is above the table" versus "The table is below the lamp" (construal representing relative prominence of entities in a situation) and "The roof slopes upward" versus "The roof slopes downward" (construal that expresses viewpoint).

Specific studies of phenomena in Slavic languages in which construal plays a key role include Cienki 1993 on the dative of empathy, Janda 2002 on contrasting usage of case in Czech and Russian, Dąbrowska 1994a on the dative of experience, and Danaher 2003 on habitual iteration in Czech.

**Prototyping and Salience**

CG assumes that we categorize schematically via prototype, and a prototype is "the most representative, or most salient, instance of a schema" (Taylor 2002, 591). In the lexicon, prototype research was pioneered by E. Rosch in a series of experiments in the 1970's that examined how we organize various categories: furniture, fruit, sports, weapons, clothing, etc. (see Ungerer and Schmid 1996 for a description of this research and ample references; see also Taylor 1989). Prototypes and the conceptual networks that have them as central members are not objective features of the world but represent cognitive constructions that reflect subjective reasoning about the world.

Grammatical constructions also exhibit prototype effects in the following sense: "[A] frequently-used morpheme or lexical item has a variety of interrelated senses. They can be thought of as forming a network, where some senses are prototypical, and others constitute either extensions or specializations of a prototypical value or of one another" (Langacker 1990, 35). Analyzing grammar in CG means mapping out the network of conventionally-established senses for a lexical item, describing each of them individually together with the relations they bear to others (Langacker 1990, 55-56).

Research on Slavic languages that highlights prototyping includes Janda 1986, which analyzes the semantics of a set of Russian prefixes, and Nesset 2000, which treats the relationship between form and meaning in the system of the Russian verbs of motion.

**Radial Semantic Networks**

Prototyping leads to a view of categorization that is not based on necessary and sufficient conditions of membership. The various meanings associated with polysemous words and grammatical forms are coherently related to each other in networks of meaning, each with
a central prototype (or prototypes) and peripheral senses linked to the prototype. Linkage among the range of meanings is realized on the basis of metaphorical and metonymical extension, which are processes fundamental to human cognition that are all but ignored in GG. Although they can be quite complex, conceptual networks are family-resemblance structures in which the relations between meanings in a given network are natural because they arise from embodied human experience.

Langacker (1990, 2-3) exemplifies radial networks in discussing the meanings of the polysemous word "ring" in English, arguing that the various senses of the word cannot be predicted from a single base meaning:

[I]t is common for linguists to assume (often tacitly) that all the meanings of a lexical item must be predictable from a single base sense, and that separate lexical items must be posited when no such meaning can be found. This is an unwarranted assumption that creates more problems than it solves. The network model is far more realistic and descriptively adequate. (Langacker 1990, 56)

Grammatical meanings function in much the same way. For example, in Janda's analysis of the meanings of the genitive case (see Janda 2004), she identifies the following four schematic central meanings: PRAMEN (pocházet z Prahy), CíL (jet do Ameriky), CELEK (vlajka svobodného Tibetu), and REFERENČNÍ BOD (vedle něčeho/někoho). These four schematic meanings are related to each other in a complex conceptual network.

Langacker makes the point that knowledge of the meaning of a given structure cannot be equated with its prototype but extends rather to knowledge of the whole network of relations:

A speaker's knowledge of the conventional value of a lexical item cannot be reduced to a single structure, such as the prototype… For one thing, not every lexical category has a single, clearly determined prototype... Even if such a structure is posited, moreover, there is no way to predict precisely which array of extensions and elaborations… have in fact achieved conventional status. The conventional meaning of a lexical item must be equated with the entire network, not with any single node. (Langacker 1990, 2-3)

Semantic structuring via radial networks is a key concept in a wide range of CG analyses of Slavic data: see, for example, Janda 1986 on prefixation and 1993 on case semantics, Janda and Clancy 2002 on the semantics of case, Nesset 1997 on Russian verbal classes, and Dąbrowska 1994c on the meaning of the instrumental case in Polish.

Domains

Langacker comments:

All linguistic units are context-dependent to some degree. A context for the characterization of a semantic unit is referred to as a domain. Domains are necessarily cognitive entities: mental experiences, representational spaces, concepts, or conceptual complexes. (Langacker 1987 (I), 147)
Domains provide a frame of meaning for most linguistic expressions: they are not strictly part of the meaning of the expression but represent the background against which that meaning is understood. As is clear from the citation, CG claim that there is no clear line between semantics proper and pragmatics. Meaning is both denotative and connotative, and domains are grounded in an encyclopedic and experiential understanding of knowledge.

The role of domains in the lexicon is quite clear: "fingers" are part of a "hand" which is itself a functional part of the human "body", a "knife" is either a piece of "cutlery" or a "weapon", and the difference between a "lake" and a "puddle of water" has a lot to do with the scope of the conceptualized domain. Such examples could be endlessly multiplied.

Domains also play necessary background roles in grammatical understanding. Note, for example, the metaphorical nature of domain extension in the following usages of the genitive case with the schematic meaning CELEK: základy domu (a physically concrete part/whole relationship: the house is the domain containing its foundations), základy anglické gramatiky (a metaphorized relationship: the grammar is like the house that contains its foundations), na základě vlastní zkušenosti (an even more abstract part/whole relationship implying that one's personal experience is a general domain that can also have a foundation). In CG, which accepts metaphorization as a fundamental cognitive process and which understands grammar as symbolic, these domain-shifts in the usages of the genitive are not problematic, and the various meanings are seen to be coherently related to one other.

Most semantic analyses in CG make at least implicit reference to conceptual domains.

Profile/Base (Trajector/Landmark)

The profile of an expression is simply what that expression designates. According to Taylor, "[p]rofiling takes place against a domain, or domain matrix, some aspects of which may be intrinsic to the conceptualization and which therefore constitute a base" (Taylor2002, 591).

All linguistic expressions profile something. The profile/base distinction is, however, not objectively given, but a matter of experience and knowledge of conventional usage. Profiling is, moreover, not absolute: "[P]rofiling amounts to nothing more than the relative prominence of substructures within a conceptualization, and is inherently a matter of degree" (Langacker 1990, 208).

In the lexicon, words profile semantic content against a base domain, and the meaning of a word derives from the specific relationship between its profile and its base. For example, the word "uncle" profiles a man in a specific relationship to other people in the domain of a family. At the level of a sentence, profiling is a matter of relative prominence: the difference in meaning between the sentences "Honza looks like Aleš"
and "Aleš looks like Honza" is that the first profiles Honza (and, in doing so, uses Aleš as a reference point) while the latter profiles Aleš (using Honza as the reference point).

On profiling in grammar, Langacker writes:

Grammatical constructions have the effect of imposing a particular profile on their composite semantic value. Consider a simple situation in which a lamp is suspended over a table. Starting from such simple expressions as \textit{the lamp, the table, above, and below}, we can combine them in alternate ways to form composite expressions that profile different facets of the scene. \textit{The lamp above the table} naturally designates the lamp. By choosing the table for the head, and appropriately adjusting the prepositional-phrase modifier, we obtain instead \textit{the table below the lamp}, which profiles the table. Another option is to add the proper form of \textit{be} to the prepositional phrase, converting it into a process predication designating the extension of the locative relationship through a span of conceived time, for example, \textit{is above the table}. When a subject is then supplied, the resulting sentence \textit{The lamp is above the table} also profiles the temporally extended locative relationship. (1990, 12-13)

Profiling is one way of symbolizing, and a grammatical construction profiles by symbolizing a particular structuring of conceptual content.

The profile/base distinction has been used to account for the semantic difference between a verb (for example, the perfective verb \textit{vybouchnout}) and its corresponding nominalized form (\textit{výbouch}). Langacker argues that the verbal form has a relational profile while the noun represents a collective construal of an event with the verbal process as base. In verbal nominalizations, "the higher-order region comprising the component states of the verb base is in profile" (Langacker 1990, 98); nominalizing a verb therefore endows it with the conceptual or semantic characteristics of nouns.

The details of profiling in grammatical constructions are complex, and Langacker 1987 (II) and 1990 both provide ample case studies. For Slavic data, see, for example, Janda 1995, which makes explicit use of the profile/base or trajector/landmark distinction in analyzing the semantics of \textit{až} and \textit{než} clauses in Czech.

Conclusion: At the Crossroads

The cognitive theory of metaphor teaches us that we conventionally conceptualize any purposeful activity as a journey. Research carried out within any theoretical framework is a purposeful activity, but each theory suggests its own particular journey, its own way of navigating the landscape or terrain represented by the subject. Each theory offers its own itinerary, its own set of sights, and its own way of getting to where we are supposed to go.

In analyzing a given linguistic phenomenon, we stand at a crossroads, and we must choose which theoretical road to take. One and the same phenomenon can be construed differently depending on the road we choose. The cognitive road and the generative road lead in (radically) different directions and to (radically) different destinations.
And if we set off on one of these roads only to find that we have lost our way? Then we can always consider going back to the crossroads and decide to take the other path.

Works Cited

**Theoretical and Practical Introductions**


For more on CG research and publications, see the website of the International Association of Cognitive Linguistics at <http://www.cogling.org/>.

**KG, GG, and Structuralism**


For selected quotations on this theme by Langacker, see <http://novemberfund.org/KG proti GG.pdf>.

**Selected Compatible Theories**


**CG and Literary Theory**


**Selected Specific Applications to Slavic Languages**

For an extensive bibliography, see the webpage of the Slavic Cognitive Linguistics Association at <http://www2.ku.edu/~slavic/scla.shtml>.
For Laura Janda's publications, see <http://www.unc.edu/depts/slavdept/lajanda/mypubs.html>.
For Tore Nesset's publications, see <http://uit.no/humfak/tilsette/78>.
For David Danaher's publications, see <http://novemberfund.org/danahercv.html>.
For an introductory course in CG with downloadable handouts in Czech, see <http://www.novemberfund.org/cogling.htm>.
For an on-line journal devoted to CL as applied to Slavic Languages, see <http://www.seelrc.org/glossos/>.


--. 1996. "Figure, Ground, and Animacy in Slavic Declension", *Slavic and East European Journal* 40:2, 325-55.
--. 2000. "From number to gender, dual to virile: bridging cognitive categories", in *Lexical and Grammatical Classification: Same or Different?*, 73-86.

--. In preparation. *The Case Book for Czech*. [sample chapter on Janda's webpage]


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Although spatial considerations play a central role in CG, Langacker was advised to change the name to something with a more serious sound.

i For more on CG versus GG, see the appropriate heading in the bibliography. Bruner 1990, Anttila 1977, and Steiner 1975 pursue criticism of GG that is compatible with but not identical to cognitivist thinking. Ungerer and Schmid (1996) summarize the differences between CG and GG as an "experiential" versus a "logical" view of linguistic semantics.


iv The basic sense of "ring" is *prsten* or *kroužek* (v nose). It also has, minimally, the following meanings: "mark left on the table from a glass filled with liquid", *aréna* (*cirkus, box*), *banda gangsterů* ("drug ring").
"Ring" as prsten is the prototypical object and the prototypical schema is a round object; semantic extensions are grounded in the generalization from "round object" to "round entity", and connotative associations with "roundness" play a role in these extensions.

For relational predicates (for example, verbs), Langacker uses the terms "trajector" and "landmark" instead of "profile" and "base".

CG insists that it is not only possible but also necessary to define word classes conceptually and not merely grammatically. For details, see Langacker 1987 (I), chapters 5-8 and 1990, chapter 3.